

Building a Values Based Supply Chain for Chicken in Oregon's Institutions

A report by Ecotrust for the USDA Local Food Promotion Program summarizing two years of research on chicken supply chains in the Pacific NW

June 2016

Executive Summary

Chicken is the number one protein sourced and served by most institutions, with the large majority coming from lowest-cost commodity producer/processors. As such, even small increases in regional purchasing by individual institutions have the potential for huge economic impact on regional economies and communities. This report summarizes two years of research from three synergistic projects, all focused on answering the question of how to get regionally sourced chicken raised without antibiotics to institutions in the Pacific NW.

Our research explored whether a growing demand and willingness to pay for chicken with attributes sometimes described as “sustainable,” or what we refer to as “differentiated” from conventional (attributes such as local, antibiotic-free, free-range, non-GMO, pasture-raised, or raised on small or family-owned farms) on the part of consumers at retail extends to institutions in the Pacific Northwest. Initial results from secondary data showed that schools, colleges, and hospitals alone suggest a potential demand for more than 2 million pounds of raw, whole, or cut-up chicken each year that offers some combination of local, antibiotic-free, free-range, or pasture-raised. On a more granular level, two large urban school districts, one large academic health center, an assisted living facility, a corporate campus, and a community justice department, all interested in procuring more differentiated chicken raised locally, agreed to share data for this project. The combined demand of these six institutions equals more than 850,000 pounds of poultry per year at a cost of more than \$1.6M, illustrating significant demand for differentiated chicken from Oregon institutions each year: at least 2 million pounds and possibly much more. Although institutional demand for differentiated local product in Oregon is evident and growing, availability and price remain key challenges for procurement managers, as does their capacity to deal with raw product.

We sought to examine our region's capacity to meet this institutional demand with regional supply, with a focus on midsize operations of a size ideal for supplying institutions. Oregon is not considered a major producer of chicken and most of the chicken it does produce comes from large commodity growers. A total of 487 Oregon farms, many concentrated in the Willamette Valley, reported sales of nearly 23 million broilers in 2012. Of these, more than 22M were produced by just 20 entities, assumed to be contracted out to large suppliers, with the majority of production shipped for processing and marketing out of state. While hundreds of other chicken farms exist in Oregon, 95% of them likely sell less than 1,000 birds per year. One of the key issues we discovered is a lack of mid-sized chicken producers – what is sometimes referred to as “poultry of the middle”. We are specifically interested in this “poultry of the middle” – broadly between the large-scale, vertically integrated industrial chicken model and the small-

scale, direct market chicken farmer – because we believe that this scale of production is a fit for institutional purchasing, but also lends itself to better natural resource stewardship and growth of social capital, is more likely to be financially viable for a greater number of producers, and is what is needed to undergird a thriving regional food economy based on a triple bottom line. This scale of production is captured succinctly by the phrase “local values, wholesale volume.” In the course of our research, we learned about numerous constraints faced by small producers and processors wishing to scale up, including the high cost of inputs such as hatcheries and feed, lack of consistent throughput and reliable labor at processing facilities, lack of accessible cold storage, challenges to organizing production amongst smaller producers, and unreliable institutional markets. One of the biggest barriers we encountered was competition from established large regional chicken producers like Foster Farms and Draper Valley who already meet much of the demand for antibiotic-free chicken. However, while supply from large national and regional entities may satisfy some of the impulse towards differentiated chicken, it doesn’t meet all the interests of well informed buyers, particularly when it comes to purchasing from family as opposed to corporate farms and supplying attributes that are difficult to execute on a massive scale, such as pasture-raised.

After two years of research, the short answer to our question about how to get regionally sourced chicken raised without antibiotics to institutions in the Pacific NW is that there is no silver bullet. Meeting institutional demand for differentiated, local chicken in our region will necessitate nothing short of a wholesale transformation of our chicken supply chain from one where profit is the single most important underlying motive to one where social and environmental values hold equal sway. A comprehensive strategy will likely involve multiple solutions on a number of fronts, including:

- Investments in key links in the supply chain
 - Further research on price competitive local feeds and help defining an appropriate basis by which producers may profitably differentiate themselves
 - Investments in local breeding operations, shared infrastructure for multiple producers, and scaling existing small poultry operations to at least 15,000 birds
 - Until investments have driven down costs, institutions with lowest cost budgets (e.g., K-12 schools, corrections) will likely find it challenging, if not impossible to source and serve local pastured poultry
- Support to coordinate institutional demand with local supply
 - Support by value chain facilitators to coordinate purchasing by multiple institutions, particularly of whole birds
 - Forward contracting and other commitments from buyers to guarantee pricing and volume from suppliers
- A networked approach via regional nodes
 - A distributed network of regional production and processing nodes presents an interesting alternate or complementary solution to corporate/commodity models
 - Numerous existing small chicken farms will have to show an interest and capability of growing significantly, or we’ll need to see the development of cooperative marketing ventures across the region.

INTRODUCTION: Digging Into the Chicken Chain

In fall 2014, Ecotrust embarked on a quest to examine what it would take to get regionally sourced chicken raised without antibiotics to institutions in the Pacific NW. Chicken is the number one protein sourced and served by most institutions, with the large majority coming from lowest-cost commodity producer/processors. As such, even small increases in regional purchasing by individual institutions have the potential for huge economic impact on regional economies and communities. Spurred on by keen interest and a specific request from two partner school districts engaged in the farm to school movement and support from a hospital partner deeply committed to local and sustainable sourcing, we set out to explore the market dynamics affecting the development of a differentiated poultry sector for institutions in the Pacific Northwest. This deep dive into the world of chicken was initiated as part of a larger body of work funded by Meyer Memorial Trust¹, looking at barriers and gaps preventing regional food economies from flourishing beyond direct market channels, like farmers' markets and farm subscription programs, and taking a significant stake in wholesale channels, such as retail grocery, regional restaurant, value-added manufacturing, and institutional foodservice.

Ecotrust facilitates the NW Food Buyers Alliance, a peer-to-peer network of institutional food purchasers (schools, hospitals, assisted living facilities, jails, etc.) in Oregon and SW Washington committed to sourcing local foods. Anecdotally, we knew that the majority of these institutional partners had been unable to source regionally produced chicken raised without antibiotics at a price that fit their budgets and/or a scale that fit their volume needs. As such, the key questions we endeavored to answer via this research were: What are the key gaps or barriers to developing a regional, differentiated chicken supply chain that can serve institutions in the Pacific NW? And what are the proposed solutions?

In addition to the study funded by Meyer Memorial Trust that looked at gaps in Oregon's food system infrastructure more broadly, primarily through secondary research, Ecotrust received match funding via a USDA Local Food Promotion Planning Grant to explore the world of chicken in the NW more deeply via primary research. Intended outcomes for that project included an analysis of Oregon's chicken supply chain, an assessment of demand and specifications for regional chicken from Oregon schools, hospitals, and other institutions, and, if warranted by the findings, an implementation plan to address gaps in Oregon's chicken supply chain for schools and hospitals specifically. The project's long-term goal was to enable at least two large school districts and one large hospital system in Oregon to serve regionally sourced, chicken raised without antibiotics on a regular basis (at least once/week) by 2017. The LFPP funding provided us with the opportunity to visit and/or interview eight producers, processors, and distributors (for full list, see Appendix A). It also allowed us to interview and collect demand information from eight institutions (for full list, see Appendix B).

When we were partway through the primary research for the LFPP grant, Ecotrust also began complementary chicken supply chain work on behalf of the Cascadia Foodshed Financing

¹ *Oregon Food Infrastructure Gap Analysis*, Ecotrust, April 2015.

Project. This work, summarized in a report to CFFP², involved researching the opportunity for regional market viability and exploring the potential for successful investment in six food product categories. In each of those categories, we compared the cost of production of a differentiated food product with its conventional counterpart and explored potential strategies to reduce the cost of production of the differentiated product by intervening in key links in the supply chain. For chicken, this took the form of a deep dive into the economics of the pastured pen model of poultry production.

We've now come to the end of more than two years worth of research and learning. We've benefited from tremendous synergy and alignment among the three projects described above and are now able to summarize this research for others. The following report documents drivers of supply and demand for differentiated chicken in the NW, with a focus on institutional markets, and synthesizes the research to propose suggested solutions for getting more regionally produced differentiated chicken into institutional meals.

DEMAND: Institutional Desire and Drivers for the “Number One” Protein

Understanding market demand for regional, differentiated chicken is the first step in analyzing a values-based supply chain for chicken in Oregon's institutions. In recent years, concerns for food safety, health, animal welfare and the environment have combined to increase interest in chicken with attributes sometimes described as “sustainable,” or what we refer to as “differentiated” from conventional. These attributes include local, antibiotic-free, free-range, non-GMO, pasture-raised, or raised on small or family-owned farms. Consumers have demonstrated a growing demand as well as a moderate willingness to pay for such attributes, at least at retail. Our research explored whether this growing demand and willingness to pay extends to institutions in the Pacific Northwest. This section begins with an overview of institutional demand for differentiated chicken in Oregon and ends with a summary of key drivers of that demand.

How Much Institutional Demand for Differentiated Chicken is There in Oregon?

Complementary work by Ecotrust examined demand for differentiated chicken from Oregon retailers, restaurants, hospitals, and educational institutions, primarily via secondary data³. That research found that schools, colleges, and hospitals alone suggest a potential demand for more than 2 million pounds of raw, whole, or cut-up chicken each year that offers some combination of local, antibiotic-free, free-range, or pasture-raised. On a more granular level, two large urban school districts, one large academic health center, an assisted living facility, a corporate campus, and a community justice department, each of whom serves chicken at least once per week and often daily, agreed to share data for this project on their average chicken purchases over a recent purchasing year. The combined demand of these six institutions equals more than 850,000 pounds of poultry per year at a cost of more than \$1.6M. Whenever possible, the institutions that participated in this project noted a preference for chicken that was raised locally (usually within a range of 150-400 miles), and with as many of the following specifications as

² *Cascadia Foodshed Financing Project Market Research Synthesis*, Ecotrust, June 2016.

³ *Oregon Food Infrastructure Gap Analysis*, Ecotrust, April 2015.

possible: organic, raised without antibiotics or hormones, whole muscle, and no fillers. Together, this secondary and primary demand data illustrate significant demand for differentiated chicken from Oregon institutions each year -- at least 2 million pounds and possibly much more. A more in-depth look at demand from hospitals, schools and colleges is explored below, followed by demand figures from the six institutions that shared data for this project.

Demand from Hospitals

[Health Care Without Harm](#) (HCWH) is an international environmental health organization that supports sustainable food procurement at hospitals and healthcare facilities, including sourcing of antibiotic-free chicken. HCWH partners with Ecotrust to promote institutional sourcing of local and sustainable foods as an advisor to the NW Food Buyer's Alliance. A 2008 report⁴ by HCWH indicated that 42 percent of 112 hospitals surveyed were buying some quantity of antibiotic-free poultry, and that another 47 percent had plans to start sourcing hormone- and antibiotic-free meat products. A contributor to the report, the Oregon Center for Environmental Health, documented four Portland-area hospitals purchasing a total of 129,720 pounds of chicken in 2007, with 10–20 percent (13,000–26,000 pounds) from antibiotic-free sources. Follow-on inquiries about food procurement by Oregon Physicians for Social Responsibility in 2009 and 2012 resulted in six detailed reports of chicken purchases from five Portland-area hospitals. Combined, the five institutions represent about 1,850 hospital beds and reported purchasing about 260,000 pounds of whole chicken and cut-up chicken parts annually (not including cooked, breaded, or other processed chicken). Extrapolating from those five institutions to Oregon's 33 private hospitals and 6,008 total hospital beds, this suggests hospitals could represent a market for about 210,000 ABF birds (a total of 845,000 pounds). With an additional 12,403 beds in Oregon's licensed nursing care facilities, there is potential for the healthcare sector's demand to be even greater.

Oregon Health and Sciences University (OHSU) is an extremely progressive hospital system in Oregon in terms of their commitment to local and sustainable food chain sourcing. As a partner on this project, they agreed to share their annual demand data for chicken. OHSU alone uses more than 100,000 pounds of chicken each year (whole birds, breast, and thigh meat) and spends more than \$239,000, nearly all of it on chicken produced and processed in the region and raised without antibiotics. More detail on OHSU's demand data can be found in Table 1 below. Providence Health Systems is also interested in sourcing regional chicken raised without antibiotics. Our regional contact shared that they spent \$325,000 on chicken in 2014.

Demand from Schools and Colleges

[School Food FOCUS](#) is a national collaborative working with fifteen large school districts across the US and their community partners (including Portland Public Schools and the Beaverton School District in Oregon, to which Ecotrust is the community partner) to make school meals nationwide healthier, regionally sourced, and sustainably produced, and has also made

⁴ *Menu of Change: Healthy Food in Health Care*, Health Care Without Harm, 2008: https://noharm-europe.org/sites/default/files/documents-files/881/Menu_of_Change_2008.pdf.

antibiotic-free chicken a priority.⁵ Recently, FOCUS published [FOCUS on the Plate](#), regularly updated lists of new and reformulated food products aimed at bringing healthier school foods to market in large school districts, including a list of poultry products raised with responsible antibiotic use. Reported purchasing of chicken in 2011–2012 by the fifteen member districts totaled approximately \$16 million. In Oregon, approximately 27 percent of school food budgets are spent on local food—the highest percentage in the nation.⁶ Schools, with limited budgets and limited ability to prepare fresh foods, offer an interesting procurement challenge.

Chicken is the number one protein served by school districts nationwide. Locally, forward-thinking districts like Portland Public Schools and Beaverton School District, both partners on this project, are committed to supporting regional food systems as much as possible and are seeking to shift some of the dollars they spend on chicken each year to products sourced from within the region and/or raised without antibiotics. In the 2013-24 school year, Portland Public Schools (PPS) provided 1.7 million servings of chicken to their students at a cost of more than half a million dollars.⁷ A detailed breakdown of PPS' chicken purchases can be seen in Table 1 below. Like most districts, PPS works with extremely tight budgets and slim margins. In line with other large metropolitan districts, they also require huge volumes of product to satisfy demand (serving more than 21,000 meals per day). Despite efforts to source and serve differentiated product, only a small fraction of their purchased chicken in SY 2013-14 was regionally procured (3.2%) or consisted of whole muscle with no ingredients of concern (3%).⁸ In 2013, PPS served chicken raised without antibiotics sourced from Oregon and Washington twice, spending \$23,462 to provide two drumsticks with each meal—about one dollar per serving (estimate: two dollars per pound). Procurement staff at Portland Public Schools report that the district prefers to source dark meat, which is harder to overcook and holds well in warmers, and they also prefer drumsticks, which are lower-cost and a convenient means to meeting the required two-ounce protein requirement for school lunch (one drumstick from a three to three-and-a-half pound bird contains approximately one ounce of lean meat). Portland Public says it would consider serving local drumsticks monthly if costs were lower. While thighs are potentially more expensive, they have higher yield, less waste, and can also be used in more menu items. If boneless thighs (whole muscle only) were available at the right price, local chicken could be served weekly.

Beaverton School District (BSD) also shared their demand data with us (see Table 1 below). BSD purchases more than 202,000 pounds of drumsticks, wings, breasts, and thigh meat, as well as processed chicken products. BSD reports that it is not currently sourcing any local, antibiotic-free chicken, but would be keen to feature it on menus two to four times per month depending on affordability. Beaverton officials quoted one dollar per serving (two drumsticks) as the maximum they would consider, saying a price of fifty cents per serving would be ideal.

⁵ *Collaborative Across the Plate: Hatching New Ideas for Chicken*, School Food Focus, (n.d): <http://www.schoolfoodfocus.org/what-we-do/school-food-learning-lab/chicken/>.

⁶ USDA Farm to School Census, 2015: <https://farmtoschoolcensus.fns.usda.gov/>

⁷ School Food Focus National Procurement Initiative, SY 2013-14 Data Report Portland Public Schools, July 2015.

⁸ Ibid.

A case study⁹ published by School Food FOCUS describes procurement of over 500,000 pounds of fresh, local drumsticks by St. Paul and Chicago Public School Districts, with costs quoted as low as twenty cents per serving (estimate: eighty cents per pound). Jeffco Public Schools in Colorado has also reported serving local antibiotic-free drumsticks once a month at a cost of forty-four cents per pound.

Portland Public Schools had an enrollment of about 48,000 students in 2013-14, serves more than 21,000 lunches daily, and provided 11,500 servings of chicken in each of the two lunches in 2013 referenced above. Extrapolating to the 567,000 students enrolled in districts across Oregon suggests 141,750 total servings of chicken would be required each time chicken was served. If local ABF chicken was featured twice per month during the school year, that suggests a need for 2.6 million servings equating to 5.2 million drumsticks (2.6 million birds for drumsticks or about 300,000 for 1.2 million pounds of equivalent).

Local colleges and universities have also expressed a desire for differentiated chicken (the University of Oregon was willing to share some of their purchasing data with us, see Demand from Project Partners section below). Extending the scenario for schools above to the approximately 190,000 students enrolled in Oregon universities and colleges suggests a need for at least another 400,000 pounds of chicken per year.

Demand from Other Institutions

While aggregated data on chicken purchases by other Oregon institutions (e.g., assisted living facilities, jails) is not readily available, we were able to secure data from an assisted living facility, a corporate campus, and a county community justice department for the purposes of this project. Their responses can be viewed in Table 1 below. Similar to hospitals and school districts, chicken is one of their top sourced proteins.

Demand from Project Partners

As referenced above, two large urban school districts (Portland Public Schools and the Beaverton School District) and one large academic health center (Oregon Health & Sciences University) in Oregon asked Ecotrust to help them source more regionally produced chicken raised without antibiotics. Their request was the impetus for this project. Over the course of the project, several other institutional foodservice buyers connected to Ecotrust via its peer-to-peer network of institutional foodservice buyers, the NW Food Buyers Alliance, and agreed to provide poultry demand data. These included Elder Health & Living, Intel's Hillsboro campus, and the Multnomah County Department of Community Justice. All of the institutions we surveyed serve some form of chicken at least once per week, and in many cases, serve chicken daily. Institutions often cater to multiple populations in diverse settings, such as patient meals and cafes in hospitals and many run catering businesses on top of their usual programming, offering ample opportunity to purchase a wide variety of chicken products for use in meals. Whenever

⁹ *Why Can't Schools Simply Cook a Chicken*, School Food Focus, (n.d.): <http://www.schoolfoodfocus.org/wp-content/uploads/2013/04/LFTL-Chicken-LS.pdf>

possible, the institutions that participated in this project noted that they would prefer to purchase chicken that was raised locally (with definitions for “local” varying by institution, usually within a range of 150-400 miles), and with as many of the following specifications as possible: organic, raised without antibiotics or hormones, whole muscle, and no fillers. Purchasing data from the six institutional partners who agreed to provide data for this project is included in Table 1 below. These numbers were collected by Ecotrust in 2015, and represent an average purchasing year as defined by each individual entity (school districts, for example, purchase on a ten month calendar).

Table 1: Chicken Purchases by Institutional Project Partners in an Avg. Purchasing Yr. (2014-15)

** Rates are based on averages and do not directly reflect the actual amounts spent by each institution.*

		Oregon Health and Sciences University	Portland Public Schools	Beaverton School District	Elder Health and Living	Intel - Hillsboro campus	Mult. County Dept. Comm. Justice	TOTALS Total lbs. Average rate* Actual \$ spent
Whole bird	Quantity (lbs)	20,000	0	0	0	15,600	100	35,700
	Rate (avg.)	~\$3/lb	N/A	N/A	0	~\$1.60/lb	~\$2/lb	~\$2.39/lb
	Total (actual)	\$60,000	0	0	0	\$24,960	\$200	\$85,160
Breast meat	Quantity	77,500	0	11,250	3,600	72,800	720	165,870
	Rate	~\$1.95/lb	N/A	~\$1.01/lb	~\$3.00/lb	~\$2.07/lb	~\$3/lb	~\$1.97/lb
	Total	\$151,200	0	\$11,362	\$10,800	\$150,800	\$2,160	\$326,322
Thigh meat	Quantity	16,640	0	6,563	0	118,560	360	142,123
	Rate	~\$1.69/lb	N/A	~\$1.01/lb	0	~\$2.63/lb	~\$3/lb	~\$2.25/lb
	Total	\$28,121.60	0	\$6,628	\$0	\$312,000	\$1,080	\$319,708
Wings	Quantity	0	0	2,188	0	6,240	0	8,428
	Rate	N/A	N/A	~\$1.01/lb	0	~\$1.33/lb	0	~\$1.25/lb
	Total	0	0	\$2,209	\$0	\$8,320	\$0	\$10,529
Drumsticks	Quantity	0	25,900	4,375	0	0	4,800	35,075
	Rate	N/A	~\$1.87/lb	~\$1.01/lb	0	N/A	~\$2/lb	~\$1.78/lb
	Total	0	\$48,521	\$4,419	\$0	\$0	\$9,600	\$62,540

Misc parts (feet, gizzard, organs, etc.)	Quantity	0	0	0	0	0	0	0
	Rate	N/A						
	Total	0	0	0	0	0	0	0
Processed product	Quantity	[minimal]	276,391	178,089	0	6,240	6,240	466,960
	Rate	unknown	~\$1.80/lb	~\$1.09/lb	0	~\$2.92/lb	~\$3/lb	~\$1.71/lb
	Total	[minimal]	\$504,663	\$256,523	\$0	\$18,200	\$18,720	\$798,106
Total	Quantity	114,140	302,291	202,465	3,600	219,440	12,220	854,156
	Rate	~\$2.10/lb	~\$1.83/lb	~\$1.40/lb	~\$3.00/lb	~\$2.34/lb	~\$2.60/lb	\$1.88/lb
	Total	\$239,322	\$553,184	\$281,141	\$10,800	\$514,280	\$31,760	\$1,602,365

The combined demand of these six institutions equals more than 850,000 pounds of poultry each year at a cost of more than \$1.6M. We also collected demand data for this project from one other hospital system as well as one university, both of which have expressed an interest in sourcing more regional and sustainable chicken. Because we weren't able to collect consistent dollar figures by part purchased (breast, wings, etc.), we didn't include this info in the table above. However, we were able to collect some information on total pounds and total dollars spent by each. Our regional contact for Providence Health Systems reported spending \$325,000 on 115,550 pounds of chicken, while the University of Oregon reported spending \$803,000 on poultry annually. Both institutions purchased primarily breast and thigh meat, as well as some wings, whole birds, drumsticks, and processed product. The University of Oregon hopes to find at least one vendor in the NW who can provide local, sustainable, antibiotic-free chicken to them on an ongoing basis. Taken in sum, these findings from project partners suggest that the potential annual demand for differentiated chicken in Oregon may be much bigger than the 2M lb estimate uncovered via our secondary research. However, this potential demand is tempered by factors such as each institution's capacity to accept and/or deal with products in different forms (e.g., whole bird vs cut parts, frozen vs fresh), by a lack of appropriate supply at scale, and most notably, by the high cost of differentiated chicken. A brief overview of some key drivers of institutional demand are outlined in the next section.

Key Drivers of Demand for Differentiated Chicken

Interest in local food is widespread across the restaurant industry. In a 2015 National Restaurant Association survey, locally sourced meats and seafood and locally grown produce were the top trends.¹⁰ Even some fast casual restaurants, such as the regional Burgerville chain, are promoting local ingredients. Institutions are experiencing a similar trend towards local sourcing, as evidenced by the national farm to school movement, with school districts in the US

¹⁰ <https://www.gsrmagazine.com/news/local-foods-sustainability-top-nra-whats-hot-2015-list>.

investing \$789 million in local communities,¹¹ and hundreds of hospitals across the country signing the Healthy Food in Health Care Pledge.¹² As described earlier, members of the NW Food Buyer's Alliance are committed to sourcing local, and many member institutions also prioritize criteria related to sustainability. Some institutions, such as Oregon Health and Sciences University (OHSU) follow established sustainability criteria for the institution's procurement, with positive feedback from customers. OHSU reports that patients and customers have expressed higher levels of satisfaction when organic chicken meat is served and find the meat to be more filling. However, the price difference for conventional and alternative chicken can be significant. While advocates like Health Care Without Harm¹³ and institutional purchasers like Bon Appétit Management Company¹⁴ have promoted or made commitments to purchasing more sustainably produced chicken, and though institutional demand for differentiated local product in Oregon is evident and growing, availability and price remain key challenges for procurement managers. Demand is also tempered by other factors, including:

- *Capacity for dealing with raw product.* The flexibility of institutional food service operations varies greatly by type of institution (school district, hospital, corporate campus, etc.) and by specific site, but most institutions have at least some capacity to handle raw product, either fresh or frozen. Many institutions, including some of those interviewed for this project, do not have the capacity to purchase or break down whole birds. This may be related to the additional labor costs of breaking down product, or may be related to a lack of infrastructure or equipment for preparing raw product. Beaverton School District, for example, notes a lack of frying pans and ranges in their kitchens. As one example of an institution with a greater degree of flexibility, OHSU is able to purchase whole birds, and does so at a rate of 20,000 pounds per year. A full time meat fabricator on staff is able to break down these birds for use in OHSU's menus, and carcasses are used for making broth. The hospital does not currently purchase the accompanying by-products, such as feet and cocks combs, but would like to in the future, since these items are full of nutrients and gelatin for broth (though in general, demand for these by-products appears to be extremely minimal).
- *Increased availability of chicken with differentiated attributes from large suppliers.* Our research for Meyer Memorial Trust¹⁵ indicated that foodservice ingredient costs average 30 percent of the final retail price, but can range lower or much higher depending on the type of establishment. Although fine dining establishments may be comfortable with food costs reaching 40 percent, with the ability to charge consumers a higher price, schools and hospitals may be seeking to keep food costs closer to 20 percent. As such, price remains a major consideration for foodservice in educational settings and healthcare. Although a growing number of institutions have a keen interest in supporting local producers, antibiotic-free chicken is also becoming increasingly available at affordable prices from large, conventional suppliers such as Foster Farms and Perdue. Despite the fact that this chicken may not be ultralocal, it may be perceived as "good enough." The

¹¹ USDA Farm to School Census, 2015: <https://farmtoschoolcensus.fns.usda.gov/>.

¹² <https://noharm-uscanada.org/issues/us-canada/healthy-food-health-care-pledge>.

¹³ https://noharm.org/sites/default/files/lib/downloads/food/Purchas_Sustainable_Poultry.pdf

¹⁴ <http://www.bamco.com/sourcing/animal-welfare/>

¹⁵ *Oregon Food Infrastructure Gap Analysis*, Ecotrust, April 2015.

added value of local products from smaller-farm suppliers may not be perceived as sufficient to justify paying the requisite price premium.

SUPPLY: The Missing Middle in Oregon's Poultry Industry

Having analyzed institutional demand for differentiated local chicken in Oregon and found a burgeoning market (at the right price), we sought to examine our region's capacity to meet this institutional demand with regional supply. Complementary research conducted by Ecotrust, which provided an introduction to the poultry industry and key issues and trends at a national level¹⁶ found that the great majority of broilers produced in the US are raised under contracts with large processing companies, with only a fraction raised and marketed directly by farmers. It described growing concerns about conventional or "industrial" chicken and noted how an increased interest in alternative production models (e.g., pasture-raised, free-range, antibiotic-free, organic, animal welfare certified) has created opportunities for chicken producers to differentiate their products and access potentially profitable niche markets. However, despite higher prices overall for differentiated products, it can be difficult for mid-sized and smaller scale farmers pursuing niche markets to earn a margin that enables profitability due to typically higher per unit production, processing, and marketing costs. Thus, chicken production is primarily segmented into large scale commodity producers/processors on the one hand and small-scale direct market niche producers on the other, with a dearth of midscale operators of a size ideal for supplying institutions interested in sourcing differentiated local chicken. Our research aimed to illuminate whether these patterns repeated themselves in our region. This section combines research from the *Oregon Food Infrastructure Gap Analysis*¹⁷ with information gleaned from primary interviews with local chicken producers and processors. It begins with a look at how much differentiated chicken is available in Oregon and is followed by a summary of the biggest constraints limiting small producers from scaling to meet demand for differentiated local chicken.

How Much Differentiated Chicken is Available in Oregon?

Oregon is not considered a major producer of chicken. The [2012 USDA Census of Agriculture](#) shows there are a total of 578 farms in Oregon raising broilers or other meat type chickens. Of those, a total of 487 Oregon farms reported sales of broilers in 2012, with a combined total of 22,789,036 birds sold. This represents a 7% decline since 2007 – 1.8 million fewer birds sold.

Oregon chicken farms are concentrated in Clackamas (77), Yamhill (57), Marion (45), Linn (39), Lane (34), and Washington (29) counties. These six counties contain 58% of farms reporting sales of broilers. The map below (Figure 1) shows the value of chicken broiler sales by county.

¹⁶ *Oregon Food Infrastructure Gap Analysis*, Ecotrust, April 2015.

¹⁷ *Ibid.*



Figure 1: Value (farmgate sales) of chicken broiler operations by county, 2012

Of all farms reporting sales of broilers, 95% sold fewer than 2,000 birds (463 farms). Most are likely operating under the 1,000 bird processing exemption¹⁸ and so represent fewer than 450,000 birds total (*1.8 million pounds at an average retail weight of 4 pounds per bird or 0.5% of total Oregon poultry consumption*).

Four farms reported sales between 2,000 and 15,999 birds. These operate under the federal 20,000 bird processing exemption¹⁹ and represent fewer than 64,000 birds total (*256,000 pounds or less than 0.1% of Oregon consumption*).

No farms reported sales between 16,000 and 99,999 birds.

Four farms reported sales between 100,000 and 499,999 birds. There were also 16 farms reporting sales over 500,000 birds. These 20 farms can be assumed to be contracted to large regional brands such as Foster Farms, and together produce the remaining ~22.3 million birds raised (*89 million pounds or 27% of total Oregon consumption*). All told, Oregon farmers produce enough broilers to satisfy about 28% of overall chicken consumption in Oregon. However, almost all chickens produced in Oregon are shipped for processing out of state, with a good percentage of final products likely marketed out of state as well.

¹⁸ Read more about the 1,000 and 20,000 bird processing exemptions below in the section on processing.

¹⁹ Ibid.

In examining large-scale producers/processors, a 2005 OSU Oregon Agricultural Commodities study²⁰ characterized the state's poultry industry, noting that most broilers grown in Oregon are processed in Washington as part of vertically integrated private operations. Noted regional brands include Foster Farms (CA, OR, WA), Draper Valley (OR, WA) and Petaluma Poultry (CA). Foster Farms is headquartered in California, operates 13 processing plants²¹ and has annual sales of \$2.4 billion. Foster Farms reports that it sources broilers from 18 independent farmers in Oregon, which are processed primarily in Kelso, WA²². Foster Farms does offer an organic product line, and claims that it does not use antibiotics for growth promotion²³, does not use medically important antibiotics, and that it is committed to expanding antibiotic-free production. Foster Farms is also certified by the American Humane Association. Draper Valley Farms and Petaluma Poultry were purchased in 2011 by Perdue, as part of the acquisition of the Coleman Natural brand. Perdue is the third largest poultry producer in the US, with annual sales of \$3.1 billion. Perdue is also now reportedly the leading producer of organic and no-antibiotics-ever chicken, and recently announced the elimination of antibiotics from its hatcheries. Draper Valley reportedly sources chicken from about 25 Oregon and Washington farmers, which are processed in Washington²⁴. Petaluma's production and processing appears limited to California. Draper Valley and Petaluma both offer organic product lines and antibiotic-free "free-range" lines with birds that have outdoor access. Draper Valley also offers an antibiotic-free "natural" line with birds raised indoors. Both companies make "humanely raised" and "sustainably farmed" claims, but are not third-party certified.

These findings mirror the national trend of segmentation of the broiler industry into very small or very large farms. Oregon simply does not have a mid-sized poultry grower producing between 16,000 and 99,999 birds per year, and the 20 growers producing more than 100,000 birds are contracted out to large regional brands like Foster Farms and Draper Valley, and would likely be defined as Confined Animal Feeding Operations (CAFOs) according to US Environmental Protection Agency standards.²⁵ There exists a dearth of mid-sized farms using humane and environmentally sound production practices – a scale of production captured succinctly by the phrase "local values, wholesale volume" – that have been able to develop a brand and serve local and regional markets. We are specifically interested in this "poultry of the middle" – broadly between the large-scale, vertically integrated industrial chicken model and the small-scale, direct market chicken farmer – because we believe that this scale of production generally lends itself to better natural resource stewardship and growth of social capital, is more likely to be financially viable for a greater number of producers (as compared to industrial size growers or those who grow for extremely small niche markets), and is what is needed to undergird a thriving regional food economy based on a triple bottom line. Our thinking was partially informed by a needs assessment of midsize producers supplying Oregon's foodshed, which included

²⁰ <http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/19831/ec1612-e.pdf>

²¹ http://pages.nxtbook.com/sosland/mp/2013_03_01/offline/mp_2013_03_01.pdf

²² <http://www.fosterfarms.com/all-about-us/our-story/>

²³ <http://www.fosterfarms.com/because-we-care/antibiotic-stewardship/>

²⁴ <http://www.lifesourcenaturalfoods.com/2011/01/01/draper-valley-farm/>

²⁵ In the US, any farm with more than 125,000 chickens is defined as a [Concentrated Animal Feeding Operation](#) (CAFO) by the Environmental Protection Agency.

interviews with eighteen producers in ten different product categories²⁶. It found that midsize producers prioritized care for the environment, animal welfare, and their labor force, sometimes at a cost to near-term profit, and suggested that sustainable producers act on their values in a way that also promotes the long-term welfare of their land and business.

Constraints Preventing Oregon's Chicken Producers and Processors from Scaling

Given the assumptions that midscale poultry production is an ideal fit for institutions seeking locally produced chicken and that it also lends itself to improved economic, social, and environmental impacts for communities (as compared to commodity scale production), and given clear demand for differentiated chicken by institutions in the region in concert with hundreds of small chicken farms with the opportunity to scale, we were interested in understanding constraints to scaling up supply by smaller farmers. A national report on poultry of the middle described the challenges faced by small and medium-sized poultry producers as they grow: in addition to seeking a niche to distinguish themselves, they must also create for themselves the infrastructure needed to get their product to market, including all of the resources that integrated companies own, such as access to hatcheries, feed, processing facilities, distribution, marketing, sales staff and more.²⁷ To illuminate the particularities of these factors in our region, we interviewed and visited small regional producers interested in scaling up, studied cooperative models where supply can be pooled to meet volume demands, and also examined two vertically integrated models - one successful and the other now defunct (see Appendix C for profiles of interviewees).

Hatcheries

The relatively high cost of chicks raised in Oregon is a concern. Many commercial chicks come from hatcheries in the Midwestern and Southern states, where chicken production is centralized. However, Oregon does have a few independently operated hatcheries. Many, such as [Winn's Livestock and Hatchery](#) (Corvallis, OR), appear focused on supplying small numbers of specialty poultry to backyard enthusiasts and for show. However, [Jenk's Hatchery](#) in Tangent, Oregon, is a family-owned company that supplies Cornish Cross and Red Ranger chicks for small farmers. Cornish Cross chicks range from \$1.35 to \$1.15 apiece (for <50 and >100 chicks), with additional price breaks for orders over 350. Red Rangers are \$2.45 to \$2.10 apiece. Poultry producers we interviewed (Lazy B Ranch, Botany Bay Farm) reported buying their chicks from Jenks at a cost of anywhere from 90 cents to \$1.10 per chick, with reduced prices available if producers picked up their own chicks. One producer noted a concern over the costs incurred driving long distances to pick up chicks or to pay to have them delivered. Pacific Foods, an Oregon company that has vertically integrated to ensure supplies for its line of packaged soups and broths, has addressed the issue head on by helping to restart a shuttered hatchery in Oregon to supply chicks for its own farm, and now raises a growing percentage of its own chickens and turkeys.

²⁶ *Organizing to Rebuild Agriculture of the Middle*, prepared by Nellie McAdams for Ecotrust, 2015.

²⁷ http://agofthemiddle.org/papers/poultry_middle.pdf/

Feed

Feed comprises the single largest cost item for differentiated poultry producers, and certified organic or non-GMO feed can be especially cost prohibitive. An economic analysis conducted by Ecotrust²⁸ found that feed costs can comprise 40% - 50% of the total production cost of pastured poultry, and 60% - 70% of on-farm costs (excluding processing). CHS/Kropf operates a feedmill in Harrisburg, Oregon²⁹, which manufactures and distributes bulk and bag conventional and organic feeds. Other local companies include Haystack Farm and Feed³⁰, Cascade Feeds, Union Point Custom Feeds³¹, Rogue Quality Feeds³², and others. Ingredients for feeds from these companies may or may not come from Oregon farms. Some producers we interviewed have begun to direct source and blend their own feeds to have better control over the ingredients at significant cost savings. For example, Lazy B Ranch described purchasing feed in the past (organic, soy-free) from local companies, but found that these sources of feed were expensive (\$1,100-\$1,400/ton) and lower in protein than they wanted. In response, they began mixing their own organic, soy-free feed composed of corn, barley, peas, and fishmeal direct sourced from farms in Oregon, Washington, Montana, and Idaho, and are working towards growing as much of their feed on-farm as possible. They build three different blends for starting, growing, and finishing the birds, and are able to produce this feed at a much lower cost of about \$700/ton. Similar to Lazy B, Botany Bay Farm also experienced difficulty finding feed that met their standards and was affordable, so they decided to make their own, grinding it themselves in an ingeniously designed homemade mill (see Figure 2, below).



Figure 2: Botany Bay's ingenious feed machine.

The machine took less than a month for them to pay off and produces about 250 pounds of feed per batch. They source the ingredients directly from farmers whenever possible, including no spray barley from Toledo, Washington, wheat and camelina meal from Oregon, and corn and

²⁸ *Cascadia Foodshed Financing Project Market Research Synthesis*, Ecotrust, June 2016.

²⁹ <http://www.paybacknutrition.com/organic.html>

³⁰ www.haystackfarmandfeeds.com

³¹ <http://unionpoint.com/products/>

³² <https://shop.grangecoop.com/departments/rogue-feed-691.html>

fishmeal from Pennsylvania. They use a single type of feed for all growing stages, but a different size as they grow. With their machine, they have found that they can produce their own feed at a pretty sizeable cost savings. They estimate that it costs them about \$17-18 to produce a 50 lb. bag of feed.

Processing

Processing capacity is frequently referenced as an infrastructure gap and a barrier to the development of more mid-sized farm and food businesses. Similar to beef and pork, the availability of low-cost processing infrastructure distributed throughout a region such that it is easily accessible to producers is essential for getting a reliable supply of pastured poultry to consumers. While several processors in Oregon have managed to operate profitably under a state license (up to 20,000 birds per year), and one vertically integrated operator has made it work with a federal USDA license, in general processors have faced issues finding adequate labor to staff the plants and sufficient throughput to keep them running.

In terms of the regulatory environment in Oregon, as in every other state, federal law requires that poultry be processed at a federally-inspected facility to be sold as human food. However, there are exemptions that allow processing of birds sold within the state of Oregon under a state license or even without a license:

- *On-farm processing under the 1,000 bird exemption:* Very small producers are allowed to process up to 1,000 of their own birds for sales direct to consumers, at the farm, with minimal facilities and in open-air conditions, without meeting the facilities requirements for a state license.
- *Processing under a state license:* Producers with a state license may process up to 20,000 of their own birds. Within that limit, those with an accompanying “small enterprise exemption” may also buy birds, process them, and sell them back to the original owner for marketing.
- *Mobile slaughter and processing under a state license:* Multiple producers can also share access to a state licensed mobile processing unit, processing up to 20,000 birds per farm per year.

The Oregon Food Infrastructure Gap Analysis report³³ provides more details about on-farm processing under the 1,000 bird exemption as well as the costs of constructing processing facilities at various scales. Here, we are concerned primarily with the capacity of and challenges faced by state and federally licensed facilities, since this is likely what will be needed to provide an ample supply of pastured local chicken to institutions.

2014 licensing data from the Oregon Department of Agriculture showed 18 state-licensed poultry slaughter facilities and one USDA certified processor (Dayton Meats), clustered primarily in the western half of the state adjacent to Interstate-5. Results displayed in Figure 3 below.

³³ *Oregon Food Infrastructure Gap Analysis*, Ecotrust, April 2015.

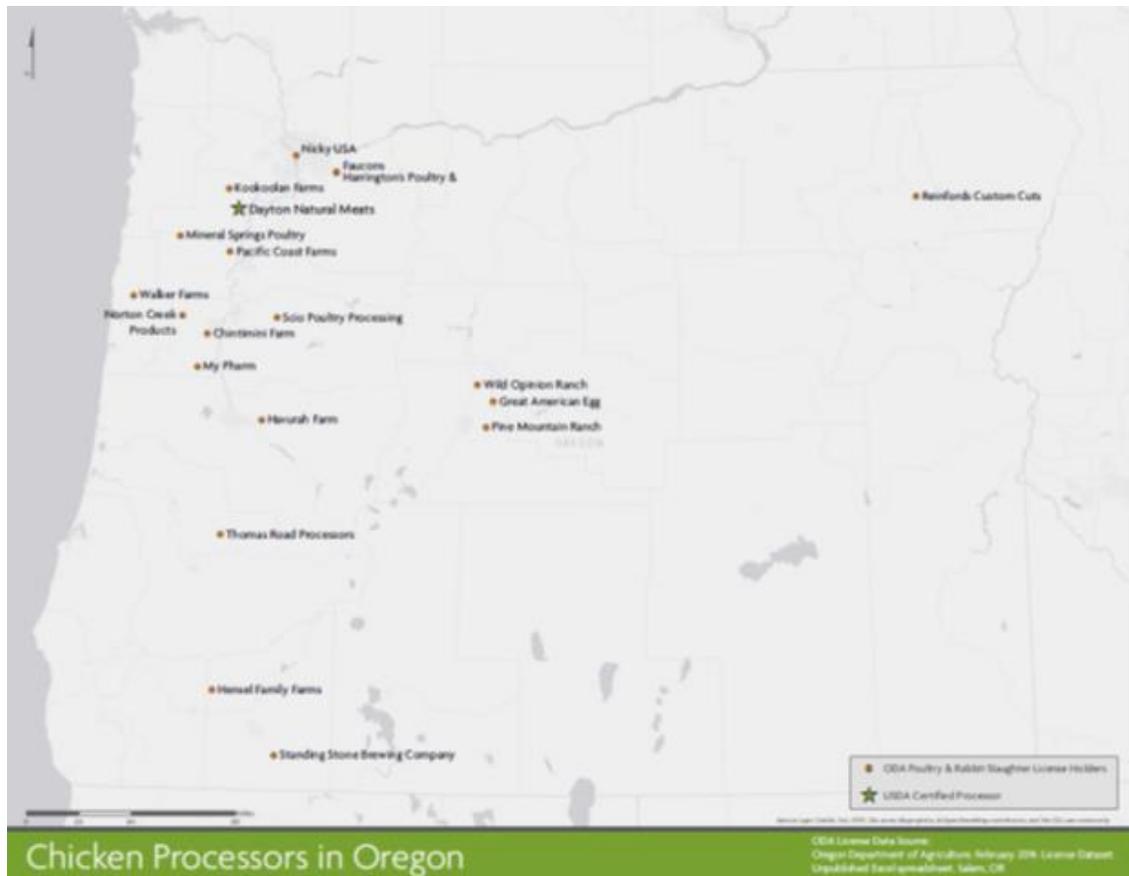


Figure 3: State and Federally Licensed Poultry Slaughter Facilities in Oregon, 2014

If each of the 18 state-licensed facilities operated at full capacity, they could represent the capacity to process 360,000 birds/year, but this still only represents a fraction of the demand from local institutions. However, these include a number of farms operating at less than maximum capacity and processing only their own birds, such as Walker Farms in Siletz (4,000 birds/year) and Kookoolan Farms (9,000 birds/year). Only a handful of state-licensed facilities in Oregon actually offer processing to independent farmers. These include:

- *B&K Natural Farm* near Sutherlin. \$3.50 per chicken.
- *Harrington's Poultry* in Boring. \$3.50 per chicken <5lbs. \$4.50-\$5.50 for larger birds.
- *Mineral Springs Poultry* near Willamina. \$3.48 bagged whole or \$4.08 cut and wrapped on a tray.
- *Scio Poultry Processing* near Scio. \$5.25 per chicken <7lbs. \$5.85 for larger birds.³⁴

We were able to interview three of the above facilities, B&K Natural Farm, Mineral Springs Poultry, and Scio Poultry Processing (for full profiles of each, see Appendix C). While each of these facilities has managed to operate at a profit, they have all faced similar challenges in regards to labor and throughput. With smaller operations such as Walker Farms and Kookoolan, owners and their families likely provide a significant portion of the processing labor required, but as the number of birds processed increases, so too does the need for reliable labor. B&K

³⁴ Processing prices as reported in *Oregon Food Infrastructure Gap Analysis*, Ecotrust, April 2015.

Natural Farm has been a state-licensed processing facility for three years and was able to build their facility for less than \$40,000. Currently they process 200 birds per week over a 20 week period and are maxed out in terms of what 1-2 people can process. They report that their facility could handle up to 200 birds per hour if they were able to secure the necessary labor (8-10 people), but that has proved difficult. Mineral Springs offers custom processing and the amount of poultry that they process weekly varies from about 250-500 birds/day. At their current scale they report that their business is manageable and profitable. To scale, they would be need to convert to a full USDA-licensed facility, but there are many reasons that they are not interested in doing that. As mentioned by others, finding good reliable labor is a major issue. Owner Nels Youngberg notes that processing is a lot of work, it's hard on the body and takes time to do well, and takes a "special kind of person." Youngberg believes that anyone considering setting up their own processing plant should have reliable labor (from family or otherwise) lined up before doing so.

Scio Poultry Processing, with both owners working on the farm and six part-time staff, also reports that finding good labor has been a consistent struggle, but an even bigger challenge for them has been consistent throughput. In 2006, using a combination of bank loans, a private investor, and a large chunk of their own capital, the owners built a poultry processing plant on their property (see Figure 4 below). Initially, they had hoped to start a facility together with other producers/processors, but that opportunity didn't pan out. They built the processing facility primarily because there was no USDA-certified poultry facility in Oregon at that time and they saw a need. They conducted a survey before they built the facility and potential customers told them that they would raise more birds if a processing facility existed. This materialized, to a degree, but never met the total throughput they expected. In addition, they didn't have a positive experience with the USDA inspectors at their plant, finding the process to be cumbersome. As such, Scio Poultry Processing did offer USDA processing briefly, but reverted to a state license in 2011.



Figure 4: Scio Poultry Processing plant

Currently, they operate under the state small enterprise exemption, processing 14,000 - 15,000 birds per year, of which 3,000 - 3,300 are from their own ranch, and the rest are from other producers. Average utilization of their facilities fluctuates greatly, with the highest volume in April through October, though some growers process birds all year round. Scio usually processes birds two days per week. On other days, they do further processing of the meat. If they were

fully staffed at six employees they could do 500 birds per day. They also use the facility to slaughter and process (grind, cut, etc.) their buffalo, which is exempt from inspection. In recent years, Scio Poultry has been able to gross about \$80K per year. They are not interested in expanding their business at this time and don't think they'll ever come close to exceeding the 20,000 bird limit.

At one point, Mineral Springs had considered scaling their operations beyond the state license threshold. They had gone so far as to explore collaboration with other producers who had expressed a desire to form a cooperative that could produce and process up to 100,000 birds per year. The idea was that one participant would grow the birds, one would process, and another would be the retail outlet, but the others lost interest and nothing came of it. After this experience and having watched Scio's brief encounter with USDA processing go south, Mineral Springs expressed similar concerns that if they scaled there would not be enough throughput and therefore it would not be profitable.

These same lessons were echoed by Greener Pastures Poultry (see full profile Appendix C) - a once lauded, but now shuttered Oregon company. Launched in 2001 with a state license, the facility could handle as many as 500 birds per day and sales soon reached 20,000. However, the business was only marginal at that level. Greener Pastures estimated that it would need to process at least 120,000 birds a year to be sustainable, but doing so would require opening a USDA-licensed processing plant. Greener Pastures closed its doors in 2006 when its owner was unable to identify and attract a manager with the skill and experience to operate a USDA plant, and then as a result, could not secure the funding to build it. Similar to other processors, Greener Pastures reported extreme difficulty attracting and retaining employees in the processing plant, especially when operating only seasonally. In addition, Greener Pastures had legitimate concerns about throughput, noting that the gap from twenty thousand birds processed under state license to the number of birds necessary to justify a USDA-licensed facility is very large.

In 2013, Little Farms Inc. (Goldendale, WA) built a new facility that complies with USDA requirements for \$110,000 (not including the cost of the land). That facility is capable of processing 200 birds per day, but is reportedly underutilized. It currently also operates under a state license as owners do not see enough demand for USDA processing.

Dayton Natural Meats is currently the only USDA licensed poultry plant in Oregon and processes 10,000 birds a week – almost exclusively for its parent company, Pacific Foods, which uses a hub and spoke approach to coordinate production of birds by a large number of small, independent farmers. Dayton offers processing to other producers, but some of the producers we interviewed reported that their minimum order size (300 birds) was too high.

Poultry Barns and Cold Storage

One challenge for smaller scale chicken producers is that pastured poultry is a seasonal product, with production and fresh chicken available from April to October. Other times of the year, farmers either sell frozen product or have no inventory. Lazy B Ranch reported a desire to

expand their limited freezer capacity so that they can hold product for their customers with limited storage space of their own.

A 2005 OSU Oregon Agricultural Commodities study³⁵ noted freezing capacity for chicken products in Oregon is quite limited. US Census County Business Patterns³⁶ data shows there were only 21 companies offering refrigerated storage services in Oregon in 2012. Food safety requirements for segregation of products will further limit access to those facilities by poultry farmers. One processor we interviewed noted that storing product is not only costly, but presents a potential liability if the product is damaged in the process. As such, this processor charges high fees once a bird has been on site for more than two days, to make it unaffordable for customers to store birds there.

Costs to build dedicated cold storage facilities may have to be considered. The alternative is construction of climate controlled poultry barns to enable year-round production. This offers benefits for processors, who can then operate throughout the year, and to some end consumers, who may prefer fresh product. However, there may be marketing challenges if the use of poultry barns is perceived as a re-creation of the existing commodity production system.

Cooperation and Organized Production

It has been suggested that having poultry producers pool their supply and share infrastructure such as processing facilities might help them to scale while keeping costs down, but so far organizing production, whether through collaboration by farmers or vertical integration, has proved challenging in Oregon. We talked with Jared Pruch (who was then employed by Berggren Demonstration Farm) in April 2015 about his plans to explore potential for a poultry cooperative with rural farmers in the southern Willamette Valley. At that time, they were looking into shared distribution, cold storage, and marketing, but but felt that producers might not yet be ready to collaborate successfully. They sold to farmer's markets, CSAs, and some restaurant sales, but even collaboratively, the volume that these growers could offer was not very significant (<5,000 total birds). However, Berggren's research with local producers did find an expressed need for a cooperative to help them access markets, spend less on chicks, feed, and supplies, improve bargaining power, and consolidate marketing and distribution functions. In fall of 2015 they received a USDA Local Food Promotion Planning grant to build a poultry cooperative supporting 20-25 producers. The grant lasts through fall of 2017 and aims to put the hard and soft infrastructure in place (processing, cold storage, shared distribution and marketing, strong member relations) to build a sustainable regional poultry distribution node in the southern Willamette Valley that can supply at least 10,000 birds per year.³⁷

Greener Pastures Poultry, referenced earlier, began coordinating with other farmers to supply birds in an attempt to satisfy growing demand for pastured poultry in Oregon, and was studied intensively as a model for new farm businesses, including a report by Washington State

³⁵ <http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/19831/ec1612-e.pdf>

³⁶ <http://censtats.census.gov/cgi-bin/cbpnaic/cbpdetl.pl>

³⁷ Interview with Shelley Bowerman, March 9, 2016.

University.³⁸ However, as a small business owner trying to raise chickens, coordinate production by other farmers, manage processing and packaging, as well as market and deliver product, Greener Pastures Poultry owner Aaron Silverman soon found that he exhausted himself. He needed more ability to delegate parts of the enterprise, but was unable to attract and retain employees to support his efforts.

Chuck Eggert, the owner of Pacific Foods and Dayton Meats, has proposed a different approach to the challenge and has so far managed to build one of the more successful models of organized production by small farmers. Chuck envisions a system more like the 1950s, when a large percentage of chickens were still raised on small family farms. Those farm families might have raised fewer than one thousand birds over the course of a year for their own consumption and for supplemental income. With a distributed network of independent small farms clustered around central processing nodes, which are in turn owned by a processing and marketing company, Chuck believes he can deliver a small, but reliable income to farmers, better quality of life for a growing number of chickens, and a unique, high-quality product in volume for wholesale. Under this system, an independent small farm would allocate land and invest in mobile broiler houses to move with the chickens from pasture to pasture. A second stage investment in small poultry barns could allow production to continue in winter months. Each farm handles its own labor and insurance. The expectation would be that farmers could sell between one thousand and five thousand birds to the central processor in a season. (Estimate: That effort might be expected to generate a profit of \$1,000 to \$2,000 per one thousand–bird unit.) The processor might also provide chicks and feed, and specify production standards (humane treatment, no antibiotics, organic for some markets, etc.). For a plant that processes 120,000 birds per year, if each participating farmer raised 5,000 birds/year, there would need to be 24 growers in the cluster. Production schedules could be established to enable harvest of flocks in units to keep the plant in operation.

Distribution

Smaller local or regional chicken producers are unlikely to see their products carried by large broadline distributors such as Food Services of America or SYSCO. Once some scale is achieved, there may be opportunities to work with associated businesses, such as Fulton Provision Company (owned by SYSCO). However, there are some smaller, specialty distributors that may offer more immediate support. These include companies like SP Provisions, Nicky USA (*which has actually bought land and a USDA-licensed mobile processing unit to be able to raise, process and distribute its own small animals*), Eat Oregon First, and Corfini Gourmet (based in Washington), whom we had a chance to interview (see full profile Appendix C). Launched in 2004 and based out of both Portland and Seattle, Corfini is a mid sized meat distributor focused on sustainable and local meats, including beef, poultry, pork, lamb and game, and seafood. They sell to restaurants, grocers, catering companies, food trucks, corporate food service, healthcare facilities and academic facilities. They source poultry from regional producers as well as others based in the midwest. Corfini reports that one of the

³⁸ “Marketing Quality on Creative Growers’ Farms,” Rural Roots and the University of Idaho Research Team, 2005.

biggest barriers they face is getting into the systems that sell to institutions. From a purely economic standpoint, large distribution companies are more efficient, more affordable, and already set up within the buying groups with which institutions work (e.g., Avendra, FoodBuy). These buying groups generally charge fees that make it prohibitive for smaller distributors to work with them. In addition, the majority of institutional purchasing is done through contracts. While smaller producers and distributors have the option of working within an institution's negotiated off-contract flexibility (generally 10-20% of total), this strategy can be limiting.

Guaranteed Markets

Despite evidence of growing demand for local products from institutional buyers, small producers still cite a lack of guaranteed markets (at the right price) as a critical barrier. Lazy B Ranch has expressed an interest in scaling up production in the next 3-5 years to at least 20-30,000 birds, while maintaining their animal welfare, health, and environmental standards, as well as employing local people.



Figure 5: Phil and Amanda Blankenship next to pastured pens at Lazy B Ranch

The more they can scale, the more they believe they can bring down their costs, including their feed and the costs of processing. But one of the major constraints they have faced in trying to scale up production is identifying guaranteed markets for all parts of their chickens. For example, they explored with Ecotrust what it would take to sell enough drumsticks to Portland Public Schools for a single meal (~40,000 drumsticks). The problem they encountered was that this would not only take them an entire growing season for them to produce, but would leave them with the rest of the chicken to sell at premium prices to offset the lower budget threshold that the district can afford to pay for the drumsticks. Similarly, Kerry Olsen of B&K Farm thinks there is a market for growth. B&K has not yet sold to schools or other institutions. They have reached out in the past, but have been told by school districts that they are not interested unless the facility is federally inspected. They would consider scaling and even having their facility become USDA inspected if they had a guaranteed market.

Competition from Corporate Producers

Even solving for many of the problems outlined above, an important final note regarding supply of differentiated chicken in the Pacific NW is that the market in Oregon is not wide open due to competition from established large regional chicken producers like Foster Farms and Draper Valley (now owned by Perdue). As noted earlier, the 20 largest farms in Oregon can be assumed to be contracted to large brands such as Foster Farms or Tyson, and together comprise the majority of Oregon chicken production. These large commercial entities are already well underway to meet demand for antibiotic-free chicken, and also offer free-range chicken lines, which address at least some of the impulse towards pasture-raised. Though not perfect, this supply may be enough to satisfy much of the need that is currently being expressed by institutional food buyers. And given that there remains a huge gap between the price most institutions are willing to pay (~\$2/lb) and the price that local/regional farmers can accept at their current scale (~\$3-5/lb), many institutions may find these corporate competitors to be an acceptable alternative. This raises the question of whether conventional players ridding their supply systems of antibiotics obviates the need for a more distributed network of family farms. Although Foster Farms and Perdue are both regionally-based brands (CA, OR, WA), they are also huge, with annual sales in the billions of dollars. If the goal is to build resilience in Oregon's food system and move away from a monopolistic meat system, then these corporate models are not enough. A central tenet of Ecotrust's Food & Farms program is that our food system should rely more heavily on a distributed network of socially responsible, family-scale farmers, ranchers, and processors, because these mid-scale producers help to diversify food production, providing the redundancy and geographic diversity to increase resilience. Importantly, though supply from large national and regional entities may satisfy some of the impulse towards differentiated chicken, it doesn't meet all the interests of well informed buyers, particularly when it comes to purchasing from family as opposed to corporate farms, as well as supplying attributes that are difficult to execute on a massive scale, such as pasture-raised.

Thinking Toward Solutions

We started out by asking what are the key gaps to developing a regional, differentiated chicken supply chain that can serve institutions in the Pacific NW and aimed to propose solutions to close those gaps. We also wanted to know what would it take to enable school districts and hospitals in Oregon to serve regionally sourced, chicken raised without antibiotics on a regular basis (at least once/week) by 2017.

After two years of research, which revealed a clear demand from institutions for more pasture-raised chicken sourced within the region, but also numerous constraints preventing smaller producers from scaling to meet that demand, including fierce competition from corporate competitors, the short answer to these questions is that there is no silver bullet. Meeting demand for differentiated, local chicken in our region will necessitate nothing short of a wholesale transformation of our chicken supply chain from one where profit is the single most important underlying motive to one where social and environmental values hold equal sway. A comprehensive strategy will likely involve multiple solutions on a number of fronts, including

investments in key links in the supply chain, support from stakeholders to coordinate institutional demand and secure commitments from buyers, and focusing on a networked approach via regional nodes. Each of these strategies is discussed below.

Investing in Key Links in the Supply Chain

As noted earlier, there remains a huge gap between the price institutions are willing to pay and the price that local/regional farmers can accept. If investments can be made to narrow the pricing gap, there is the potential to convert significant demand on the part of institutions from conventional poultry to pastured poultry. To narrow this gap we will need to re-invent the chicken supply ecosystem. Our research³⁹ suggests that the primary cost factors that make differentiated poultry more expensive to produce are the higher cost of feed, higher land and labor requirements, and scale factors. It is possible that the cost of production for pastured poultry can be reduced by smart interventions in key links of the supply chain, to help make the poultry both a viable product for producers and affordable to institutions. This can happen both through research to address the biggest costs of production as well as investment in promising models.

In terms of further research, a focus on price competitive local feed is recommended since it constitutes 50-60% of the cost of raising chickens. The question of whether a feed produced in the Northwest would prove price competitive with existing commercial feeds requires further research. However, if a locally grown and milled feed could be developed in partnership with farmers and other producers, using quality by-products like rotational grains or spent grains from breweries, and managed to an appropriate nutrient profile and end cost, this alone could help to bring down production costs significantly. In addition, producers could benefit from help defining an appropriate basis for differentiation. With large-scale brands now marketing organic, free-range, and antibiotic-free chicken, smaller scale entrants to the market will increasingly have to differentiate based on other factors including product quality, authenticity (small farm/local story), and other production methods (pasture rearing, non-GMO feeds, higher levels of animal welfare, etc.). Pastured poultry producers often market their products on the basis of local values and connection to place. It remains to be proven what combination of attributes will have sufficient market appeal to justify a premium price.

Recommended investments include:

- Breeding operations. Chicks constitute the second highest cost of production after feed. Pacific Foods solved this problem by breeding their own birds. Investments in scaling or expanding breeding operations could help to supply affordable chicks to a network of local growers .
- Shared infrastructure for multiple farms. It is possible that investing in shared feed milling or poultry processing infrastructure would reduce costs and increase viability for multiple producers. Some of the producers we interviewed (e.g., Lazy B Ranch) expressed an interest in shared processing facilities located close to their farm.

³⁹ Including primary interviews conducted for this project, as well as findings from the *Cascadia Foodshed Financing Project Market Research Synthesis*, Ecotrust, June 2016.

- Scaling existing small-scale poultry operations to support growth to at least 15,000 net birds⁴⁰ per year harvested, with a focus on increasing margins.
- “Intellectual infrastructure”. Software for inventory tracking, shared sales and marketing, brokerages or collaborative buying approaches could increase local poultry’s marketing power.

It should be noted that while some hospital partners have been successful in procuring significant amounts of local pastured poultry for their cafeterias, until investments in the supply chain have helped to drive down the overall costs of production for pastured poultry, attempting to help institutions with the lowest cost budgets (e.g., K-12 schools, corrections) to source and serve local pastured poultry will likely prove challenging, if not impossible. That said, collaborative purchasing by different types of institutions with varying needs and degrees of flexibility may prove useful to changing institutional procurement more broadly.

Support to Coordinate Institutional Demand with Local Supply

Another promising avenue may involve working to coordinate purchasing by multiple institutions, particularly of whole birds. This helps institutions to purchase chickens in the most cost efficient form (that is, whole), while pooling volume to help drive down the price paid by each institution. With many institutions lacking the capacity to pursue this type of coordination, the value of a “benevolent broker” or value-chain facilitator to help facilitate collaboration cannot be overstated. In addition, the complementary needs of different types of institutions may also work to their advantage. For example, while the school districts we interviewed reported a preference for purchasing drumsticks, most of the other institutions we interviewed (hospital, college, etc.) were more interested in breast and thigh meat, as well as wings (items that are generally too expensive and/or labor intensive for school districts to serve).⁴¹ Coordinating purchases of whole birds, with some parts going to certain types of institutional buyers and other parts to other institutional buyers presents an intriguing avenue for exploration. Local meat distributors may be able to help facilitate these whole animal purchases by helping to coordinate institutional supply and demand. Indeed, this is already happening. For example, local meat distributor Corfini Gourmet is already doing this with whole hogs, selling to corporate campuses and local colleges, using a commitment to transparency in pricing to build trust with new buyers. Although Corfini has not yet coordinated purchasing of whole animals where different parts are sold to different buyers, they are enthused by the concept. Given the current challenges to scaling pastured poultry, Corfini has expressed an interest in exploring a whole bird concept as part of a broader collaborative institutional protein purchasing framework that includes hogs, and could also include beef, poultry, etc.

⁴⁰ Places the producer in a range considered Ag of the Middle. See *Cascadia Foodshed Financing Project Market Research Synthesis*, Ecotrust, June 2016.

⁴¹ Drumsticks are an ideal product for schools since one drumstick from a 3-3.5 pound bird equates to approximately one ounce of cooked meat. Schools have a two ounce protein requirement for school lunches, so giving students two drumsticks each is an easy and fast way to meet this requirement. Drumsticks are also easier for students to eat, since short mealtimes and plastic silverware make it difficult for students to eat protein that requires a knife and fork. Dark meat such as drumsticks also holds up better in warming trays, which are commonly used in school cafeterias.

Producers, processors, and distributors we interviewed (e.g., Mineral Springs, Scio Poultry Processing, Corfini Gourmet) expressed a desire for stronger commitment from buyers in terms of pricing and volume, and saw forward contracting as an opportunity to drive real change. Mineral Springs Poultry explained, “Having buyers commit via a down payment or a legal signed contract is a huge assurance that can help the grower feel confident investing his resources. For example, a grower may be willing to up front the processing costs if they know they will get paid for 7-9 weeks of work at once.” If committed institutional buyers band together with one another, it may be possible to give suppliers the confidence they need to commit to scaling, and if they work to pool their purchasing power, it may also be possible to develop a pricing structure where higher budget retailers and corporate cafes or event venues help to bring down the costs for lower budget institutions such as schools.

Networked Approach/Regional Nodes

To satisfy demand for chicken produced regionally using sound production practices, numerous existing small chicken farms will have to show an interest and capability of growing significantly, or we’ll need to see the development of cooperative marketing ventures across the region (groups of smaller farmers banding together, such as the cooperative being facilitated by Berggren in the southern Willamette Valley). Coordination of multiple farms seems likely to be necessary to supply volumes to justify any meaningful investment in processing capacity.

A producer that we interviewed (B&K Farm) envisioned one possible solution for scaling to serve institutions as a structure wherein all the labor comes from other producers raising their own birds. For example, a group of 4-5 farms raising birds could get together for butchering and processing. These producers would have a higher stake in the game than an average hourly worker and this collective processing model could help solve the problem of adequate labor.

Earlier in the report we described Pacific Foods’ successful midscale model of poultry production, processing, and marketing via vertical integration. This model brings with it management experience, and potentially easier access to staff, facilities, and resources. Successful replication of such a model by others in different regions of the state offers one strategy for increasing the amount of local differentiated chicken in our region. However, the revenue to individual farmers in such a model is modest and the profitable growth of the enterprise does not necessarily directly benefit the farmer. A distributed network of regional production and processing nodes presents another interesting alternate or complementary solution to corporate and commodity models. Currently, there is only one USDA-certified slaughter facility operating in Oregon (Dayton Natural Meats operated by Pacific Foods), and one other facility in Scio (Scio Poultry Processing) that was built to USDA specifications. Regional processing nodes can be built fairly affordably (\$20-\$40K), but only a handful of the approximately 20 facilities in operation currently offer processing to independent chicken farmers, and each of these have a 20,000 per year maximum processing volume. This means that even if each was operating at maximum capacity and selling to local markets, we’d still need a number of new state-licensed facilities (or a handful of additional USDA-certified facilities) to service total local demand. The economics of distributed processing (e.g., having

state licensed facilities in different regions across the state working together to coordinate supply to local markets) would necessitate strong support for sales and marketing (branding, website, sales team, and facilitated connections to wholesale buyers), either provided by a cooperative manager or by non-profit partners (value chain facilitators). To be successful, such a networked approach would require recruiting lots of farmers to grow chickens, while avoiding replicating the contract grower industrial model. Growers would need to have the option to sell a portion of their supply at farmers' markets, through CSAs, or at their farm stand if they want to. Developing farmer contracts takes specialized knowledge and the leadership to facilitate bringing them together to become true partners. Organizations like Rogue Farm Corps, which offers farm training programs and hands-on experience on a diverse network of commercial family farms in Oregon, could provide a potential pool of interns with the values, knowledge, and commitment to support growth of such a network in our region.

Final Word

The concept of a distributed network of regional production and processing nodes, driven by investments in key links in the supply chain, with coordinated purchasing by institutions is complex and multifaceted. To achieve success with any of these solutions will require sustained attention and commitment from academic institutions, non-profit partners, impact investors, and enthusiastic entrepreneurs, but it presents an opportunity to truly re-define the food system, and make "local values, wholesale volume" real in our regional chicken supply chain.

Appendix A: List of Interviews

Producers, Processors, and Distributors

1. Jared Pruch, Berggren Demonstration Farm, 4/8/15 (full profile, Appendix C).
2. Zack Agopian, Corfini Gourmet, 7/28/15 (full profile, Appendix C).
3. Nels Youngberg, Mineral Springs Poultry, 7/28/15 (full profile, Appendix C).
4. Joe and Karen Schueller, Rainshadow El Rancho & Scio Poultry, 7/30/2015 (full profile, Appendix C).
5. Amanda and Phil Blankenship, Lazy B Ranch, Chiloquin, Oregon, 8/17/15 (full profile, Appendix C).
6. Heidi and Caleb Sturtevant, Botany Bay Farm, Brush Prairie, Washington, 8/24/15 (full profile, Appendix C).
7. Kerry Olsen, B&K Natural Farm, 10/28/15 (full profile, Appendix C).
8. Stephen Hohenreider, Farmland LP, 12/31/15.
9. Shelley Bowerman, Heart of the Valley Cooperative, 3/9/16 (full profile, Appendix C).

Other Partners

10. Andrew Roybal and Eric Bertrand, University of Oregon Dining Services, 4/29/15.
11. Richard Satnick, Owner of Dick's Kitchen, 7/30/15.
12. Will Fargo, Oregon Department of Agriculture, 9/3/15.
13. Andrew DeCoriolis, Farm Forward, 11/3/15.

Appendix B: Oregon Institutions that Supplied Demand Data

1. Beaverton School District
2. Elder Health and Living
3. Intel Hillsboro campus
4. Multnomah County Department of Community Justice
5. Oregon Health and Sciences University
6. Portland Public Schools
7. Providence Health Services
8. University of Oregon

Appendix C: Profiles from Producers, Processors, Distributors

**The following profiles consist of raw notes summarizing interviews and visits by Ecotrust staff and have not been edited for clarity.*

Lazy B Ranch, Chiloquin, Oregon

In August 2015 we visited and interviewed Lazy B Ranch located in Chiloquin, in southern Oregon, about 30 miles north of Klamath Falls. Lazy B offers both free-range and mobile pen options. As mentioned earlier, in the past Lazy B has used a pastured pen model to raise birds for Standing Stone Brewery in Ashland. They raise Freedom Ranger and Cornish Cross hens (as well as pekin and Muscovy ducks and some turkey), with the Freedom Ranger taking about 2-3 weeks longer to grow out than the Cornish. Their birds are antibiotic free and fed a soy- and chemical-free diet. They actively manage grazing practices on their 170+ acres (20 acres of which are used for poultry) and consider themselves “obsessively humane” when it comes to the treatment of their animals. While their operation is still relatively small, they have ramped up production considerably in the last few years, raising 200 birds in 2013, 2,700 in 2014, and more than 10,000 birds last year. Their poultry operation is seasonal from May to November and birds are produced in batches (~2,400/batch last year), though product is available year round, both fresh and frozen.

At present, owners Amanda and Phil Blankenship work full-time and also hired a family member to support them part-time last year. They have hired additional labor to support the process of transferring birds for processing, but in general expressed that labor has been hard to find. They drive more than three hours each way to pick up chicks from Jenks Hatchery near Corvallis once per month.

The Blankenships have purchased feed in the past (organic, soy-free) from Modesto Milling and Scratch and Peck, but they found that these sources of feed were expensive (\$1,100-\$1,400/ton) and lower in protein than they wanted. In response, they began mixing their own organic, soy-free feed composed of corn, barley, peas, and fishmeal direct sourced from farms in Oregon, Washington, Montana, and Idaho, and are working towards growing as much of their feed on-farm as possible. They build three different blends for starting, growing, and finishing the birds, and are able to produce this feed at a much lower cost of about \$700/ton.

Their birds are processed off farm. In the past, they used a processor down in Yreka, California (just over 2 hours from their farm), but their throughput got too large for the processor. Currently, they have their birds processed at Dayton Natural Meats, the only USDA-certified poultry plant in Oregon (see more below). Costs to slaughter and process the birds have varied wildly over the years ranging from a low of \$3.25/bird to a high of \$7. Lazy B has 5 freezers on site and has also used refrigerated trucks for extra cold storage when needed. The refrigerated truck option is expensive and Lazy B has expressed a desire to expand their cold storage capacity in the future so that they can store frozen product for customers that lack their own storage space. They offer regular delivery throughout Oregon, and sometimes to California and Nevada. Recently, Ecotrust helped them connect with B-Line Sustainable Urban Delivery in

Portland, which has helped expand their cold storage and distribution capacity and opened up new restaurant accounts.

As noted, Lazy B used to sell to Standing Stone Brewery in Ashland. That relationship has ended, but they now sell to a number of restaurants and brew pubs. These sales are the result of a significant investment of time into direct sales (they estimate having made more than 500 calls last year!). Lazy B also sells some poultry through wholesalers like Azure Standard and US Wellness, an online meat supplier, and have tried to get into retail markets in Portland with little success thus far. They are keenly interested in selling to institutions, if they can meet the necessary price point, and recently sold 10 cases of drumsticks to an assisted living facility in Portland, which continues to buy from them.

Lazy B is very interested in scaling up production in the next 3-5 years to at least 20-30,000 birds, while maintaining their animal welfare, health, and environmental standards, as well as employing local people. The more they can scale, the more they believe they can bring down their costs, including their feed and the costs of processing.

One of the major constraints they have faced in trying to scale up production is identifying guaranteed markets for all parts of their chickens. For example, they have explored what it would take to sell enough drumsticks to Portland Public Schools for a single meal (40,000 drumsticks). The problem they encountered was that this would not only take them an entire growing season for them to produce, but would leave them with the rest of the chicken to sell at premium prices to offset the low budget threshold that PPS can afford to pay for the drumsticks. Some other constraints include finding adequate labor to support their production, lack adequate storage space at customer sites (especially restaurants) for frozen product, and competition from regional brand Pacific Foods, which has achieved an economy of scale through vertical integration (see profile later). Lazy B has considered working collaboratively with other poultry growers, but hasn't found much interest from other producers. They would be interested in shared processing facility, especially one located closer to their farm.

Botany Bay Farm, Brush Prairie, Washington

We also visited Botany Bay Farm in August of 2015, which is located on 34 acres in Brush Prairie, Washington, about 20 minutes north of Portland, Oregon. We interviewed brother and sister Caleb and Heidi Sturtevant about their family's poultry operation. Similar to Lazy B, the Sturtevants are new to poultry production, having begun raising chickens in 2013, and having ramped up production rapidly from 1,000 birds in 2013, to 3,000 in 2014, and 6,000 last year. They also produce pork, eggs, beef, rabbit, and lamb, but their broilers account for 40-50% of the farm's total income. They employ a pasture-based rotational grazing model using mobile pens on about 12-15 acres. Their chickens are fed on grass as well as a soy- and GMO-free feed and they avoid hormones and antibiotics as well as chemical fertilizers and pesticides on their land. They solely produce the White Cornish Cross variety, with an 8 week growout period.

The Sturtevants raise birds from May to October, with their biggest batches in spring and fall (about 225-375 birds per week). With 12+ family members working the farm in different ways

and occasional help from friends, the Sturtevents noted that labor is not an issue for them. Like Lazy B, they get their chicks from Jenks, except they have them shipped at a cost of \$1.10. They used to buy feed from Buxton Feed in Oregon at a cost of \$26 per 40 lb. bag, and also used to buy a non-GMO broiler feed from Patriot Feed, but found that it was too low in protein, and so worked with them to create a higher protein blend for \$22 per 50 lb. bag. Similar to Lazy B, Botany Bay's experienced difficulty finding feed that met their standards and was affordable, so they now make their own, grinding it themselves in an ingeniously designed homemade mill built by Caleb, who is a mechanical engineer. The machine took less than a month for them to pay off and produces about 250 pounds of feed per batch. They source the ingredients directly from farmers whenever possible, including no spray barley from Toledo, Washington, wheat and camelina meal from Oregon, and corn and fishmeal from Pennsylvania. They use a single type of feed for all growing stages, but a different size as they grow. With their machine, they have found that they can produce their own feed at a pretty sizeable cost savings. They estimate that it costs them about \$17-18 to produce a 50 lb. bag of feed.

Botany Bay has a state-certified slaughter facility on site where they can process up to 20,000 birds per year. However, they cannot sell across state lines if they slaughter on site, and since they are close to Portland, they have several Oregon buyers. For those accounts, they use Harrington's Poultry in Boring where it costs them \$4/bird all costs inclusive. They have also considered using Dayton Natural Meats, but the minimum order (300 birds) has been a little high for them thus far.

They sell both whole birds as well as cuts and parts and try to sell immediately after slaughter. Although they have two chest freezers if needed, their chicken is mostly pre-sold (the rest is cut up and frozen). They sell whole birds to a local retailer for \$5.29/pound, delivering to their distribution center, and offering occasional in-store demos. They also sell to Chuck's Produce nearby in Washington state and the Clark County Farmer's Market (frozen only), various restaurants, and offer on-farm pick up and local drop site options for direct to consumer sales. They would love to sell to institutions, but have so far found that the price point is challenging for them.

Botany Bay has doubled or more than doubled their production each year and is very interested in scaling up to about 20,000 birds per year (this is their own limit for slaughtering on site, but they could increase their capacity somewhat by bringing additional birds to Oregon to be processed). They like working with their neighbors and have talked about pooling feed orders, but don't feel that collaborating with other producers is a high need currently. The biggest constraint they face is finding an adequate market for their product.

Berggren Demonstration Farm & Heart of the Valley Cooperative

We talked with Jared Pruch (who was then employed by Berggren Demonstration Farm) in April 2015 about his plans to explore a poultry cooperative with rural farmers in the southern Willamette Valley. At that time, they were looking into shared distribution, cold storage, and marketing, but he felt that his producers might not yet be ready to collaborate successfully. Despite Berggren having developed a mobile poultry processing 'kit' (see more details below in

the section on processing), they were still finding processing to be a challenge, with local processor Mineral Springs in Eugene being the most practical choice. They sold to farmer's markets, CSAs, and some restaurant sales, but even collaboratively, the volume that these growers could offer was not very significant (<5,000 total birds). However, Berggren's research with local producers did find an expressed need for a cooperative to help them access markets, spend less on chicks, feed, and supplies, improve bargaining power, and consolidate marketing and distribution functions. In fall of 2015 they received a USDA Local Food Promotion Planning grant to build a poultry cooperative supporting 20-25 producers. Shelley Bowerman was hired to lead the Heart of the Valley Cooperative and filled us in on details. The grant lasts through fall of 2017 and aims to put the hard and soft infrastructure in place (processing, cold storage, shared distribution and marketing, strong member relations) to build a sustainable regional poultry distribution node in the southern Willamette Valley that can supply at least 10,000 birds per year.

Greener Pastures Poultry, Noti

**This profile is adapted from one that first appeared in Ecotrust's Oregon Food Infrastructure Gap Analysis, April 2015*

In spring 2015, Ecotrust hosted [Chicken and Egg](#), a Food Forum attended by more than 120 thought leaders, to initiate community conversation around scaling sustainable meat, with a focus on the production of chicken. The forum featured Aaron Silverman, now the owner of Tails & Trotters in Portland, a pork company dedicated to producing a Northwest-style prosciutto cured from heritage pigs fattened on hazelnuts. Prior to starting Tails & Trotters in 2009, Aaron spent a large part of the previous 15 years deeply involved in pastured-poultry production.

Aaron Silverman started raising chickens as a side business on his twenty acre vegetable farm in Noti, west of Eugene, to help provide both fertility and cash flow. He had relationships with chefs, was already selling produce to restaurants, and was hearing significant demand for pasture-raised chicken. He started with two thousand birds, processing them on-farm. Then in 2001 as the business started to grow, he leased a shuttered 1950s-era, red-meat processing plant, put \$20,000 into renovating the building and \$40,000 into equipment, and launched Greener Pastures Poultry (GPP). The facility was not ideal for poultry processing, but could handle as many as 500 birds a day. Aaron increased his own production to 13,000 birds, and began coordinating with three other farmers to supply birds. He processed two days a week during the field season, stockpiling product and selling frozen chickens in the winter. Sales to restaurants, at a farmers' market, and then to New Seasons Market reached 20,000 birds. However, the business was only marginal at that level. Aaron estimated that GPP needed to be able to process at least 120,000 birds a year to be sustainable, but doing so would require opening a USDA-licensed processing plant. GPP closed its doors in 2006 when Aaron was unable to identify and attract a manager with the skill and experience to operate a USDA plant, and then as a result, could not secure the funding to build it. Before the closure, GPP was studied intensively as a model for new farm businesses, including a report by Washington State University ("Marketing Quality on Creative Growers' Farms," Rural Roots and the University of Idaho Research Team, 2005).

In an interview after the closure, Aaron cited a number of lessons learned from the experience, including the following:

- There is significant demand for pastured poultry in Oregon.
- However, as a small business owner trying to raise chickens, coordinate production by other farmers, manage processing and packaging, as well as market and deliver product, he exhausted himself. He needed more ability to delegate parts of the enterprise.
- It was extremely difficult to attract and retain employees in the processing plant when operating only seasonally. This added recruitment and training costs, and required more constant oversight.
- The gap from twenty thousand birds processed under state license to the number of birds necessary to justify a USDA-licensed facility is very large.

It is also worth noting that with an enterprise of this type, ability to manage manure and processing wastes may also become important. On very small, diversified chicken farms, wastes can be composted, used as fertilizer, and provide an economic benefit. As the number of chickens surpasses the acreage available to absorb nutrients safely, disposal of manure and waste becomes a cost and environmental risk.

Pacific Foods, Tualatin

**This profile first appeared in Ecotrust's Oregon Food Infrastructure Gap Analysis, April 2015*

Chuck Eggert, the owner of Pacific Foods and Dayton Meats, has proposed a different approach to the challenge. Chuck envisions a system more like the 1950s, when a large percentage of chickens were still raised on small family farms. Those farm families might have raised fewer than one thousand birds over the course of a year for their own consumption and for supplemental income. With a distributed network of independent small farms clustered around central processing nodes, which are in turn owned by a processing and marketing company, Chuck believes he can deliver a small, but reliable income to farmers, better quality of life for a growing number of chickens, and a unique, high-quality product in volume for wholesale. Under this system, an independent small farm would allocate land and invest in mobile broiler houses to move with the chickens from pasture to pasture. A second stage investment in small poultry barns could allow production to continue in winter months. Each farm handles its own labor and insurance. The expectation would be that farmers could sell between one thousand and five thousand birds to the central processor in a season. (Estimate: That effort might be expected to generate a profit of \$1,000 to \$2,000 per one thousand-bird unit.) The processor might also provide chicks and feed, and specify production standards (humane treatment, no antibiotics, organic for some markets, etc.). For a plant that processes 120,000 birds per year, if each participating farmer raised 5,000 birds/year, there would need to be 24 growers in the cluster. Production schedules could be established to enable harvest of flocks in units to keep the plant in operation.

B& K Natural Farm, Sutherlin, Oregon

We talked with Kerry Olsen in October 2015, owner of B&K Natural Farms located on 27 acres in Sutherlin, Oregon just off of I-5 about 15 miles north of Roseburg. Both a grower and a processor, B&K has raised and sold birds directly to consumers for over a decade and currently

raises 3-4,000 Cornish Cross each summer (10 week grow out) using a mobile pen model, selling them primarily at farmer's markets and some retail outlets. They don't have the volume to sell to bigger stores that also want year round product (their birds are pastured and seasonal). B&K has not sold to schools or other institutions. They have reached out in the past, but have been told by school districts that they are not interested unless the facility is federally inspected.

They have also been a state-licensed processing facility for three years and were able to build their facility for less than \$40,000. They process their own birds and also offer processing to other producers, but they do not put their farm label on birds from other producers or help to sell them. Currently they process 200 birds per week over a 20 week period and are maxed out in terms of what 1-2 people can process. However, their facility could handle up to 200 birds per hour if they were able to secure the necessary labor (8-10 people). Olsen thinks there is a market for growth. He is willing to grow and even have their facility become USDA inspected if they had a guaranteed market and good, reliable labor. However, he doesn't personally have the capacity to raise any more birds and if he was going to market birds from other farms under his label, he'd want to make sure that those birds were being raised to his standards. Olsen envisioned one possible solution for scaling to serve institutions as a structure wherein all the labor comes from other producers raising their own birds who therefore have a higher stake in the game than an average hourly worker. He could see a group of 4-5 farms raising birds and then getting together for butchering and processing. This collective processing model could solve the problem of adequate labor. Olsen believes that the limiting factor for this concept is the challenge of getting several chicken farmers to cooperate and also emphasized that this type of chicken will never compete with the industrial model.

Mineral Springs Poultry, Willamina, Oregon

The Mineral Springs processing facility has been around since 1979. In July 2015 we talked with Nels Youngberg, son of original owners Howard and Esther, who runs the business and has 30 years' worth of experience farming and processing poultry. Mineral Springs offers custom processing of any type of bird or game. Nels used to raise birds and do some hatching, but in recent years he has focused on processing and they have had plenty of business to keep them busy. They work with a wide range of producers from those raising 50 birds/year to those raising 3,000 bird/year or more. Many of their customers use Mineral Springs for processing, but do all their own marketing through CSAs, farmer's markets, restaurants, and retail. There are also a few folks who bring birds to him and ask him to help sell them. Mineral Springs offers custom processing and the amount of poultry that they process weekly varies from about 250-500 birds/day. Between May and Thanksgiving they are fully booked.

At their current scale, Nels notes that their profit margin works well. Their business is manageable and profitable. To scale, he would need to convert to a full USDA-licensed facility, but there are many reasons that he's not interested in doing this now. These include the fact that his friends at Rainshadow (see below) tried doing this and weren't able to turn a profit, that bringing on a USDA inspector increases processing costs and can slow down operations, and also a concern that the big guys (like Foster Farms) "would already be doing it" if it could be done successfully here. Nels' biggest concerns are that if he scaled there would not be enough

throughput and therefore it would not be profitable. Labor is also a major issue. Nels notes that processing is a lot of work, it's hard on the body and takes time to do well, and takes a "special kind of person." As mentioned by many of the other producers and processors we talked with, finding good reliable labor is challenging. Nels thinks anyone considering setting up their own processing plant should have reliable labor (from family or otherwise) lined up before doing so.

In terms of market opportunity, Nels see this as a time where it's wide open for anyone to get into growing birds and building their own customer base in their own community. He sees this smaller-scale growing and processing as a valuable model. Nels has explored collaboration with other producers. A few years ago, he had several customers who wanted to form a cooperative that could produce and process up to 100,000 birds per year. The idea was that one would grow the birds, one would process, and another would be the retail outlet, but the others lost interest and nothing came of it. Nels does see the value of having producers come together to buy feed in bulk, produce enough birds to serve institutional markets, and share processing costs. However, he thinks a USDA-certified facility is a gigantic investment that would need to process more than one billion birds/year to be profitable. Nels saw forward contracting as an opportunity to really drive change. One of the biggest complaints he hears is about the retail end, the public is fickle. Having buyers commit via a down payment or a legal signed contract is a huge assurance that can help the grower feel confident investing his resources. For example, a grower may be willing to up front the processing costs if they know they will get paid for 7-9 weeks of work at once.

Scio Poultry Processing, Scio, Oregon

In July 2015, we conducted an in-depth interview with Joe and Karen Schueller, owners of Rainshadow El Rancho and Scio Poultry, and visited Joe on the farm in August. Karen and Joe raise chicken and ducks for meat and eggs, as well as bison, rabbits, and some pigs. In 2006, using a combination of bank loans, a private investor, and a large chunk of their own capital, the Schuellers built a poultry processing plant on their property. Initially, they had hoped to start a facility together with other producers/processors, but that opportunity didn't pan out. They built the processing facility primarily because there was no USDA-certified poultry facility in Oregon at that time and they saw a need. Joe and Karen conducted a survey before they built the facility and potential customers told them that they would raise more birds if a processing facility existed. This materialized, to a degree, but never met the total throughput they expected. Joe started the processing facility thinking he could run it like a CSA with upfront investment from growers that would be paid off at each processing, but this didn't work out. In addition, they didn't have a positive experience with the USDA inspectors at their plant, finding the process to be cumbersome. As such, Scio Poultry Processing did offer USDA processing briefly, but reverted to a state license in 2011.

Currently, they operate under the state small enterprise exemption, processing 14,000 - 15,000 birds per year, of which 3,000 - 3,300 are from their own ranch, and the rest are from other producers. They advertise their processing facility in local papers and the Capital Press. Poultry growers licensed by ODA also find them through their lists. All of their customers are small producers. One or two relatively larger producers bring in 300-400 birds twice per year. Average

utilization of their facilities fluctuates greatly, with the highest volume in April through October, though some growers processing birds all year round. Scio usually processes birds two days per week. On other days, they do further processing of the meat. If they were fully staffed at six employees they could do 500 birds per day. They also use the facility to slaughter and process (grind, cut, etc.) their buffalo, which is exempt from inspection. Joe and Karen aren't interested in expanding their business at this time and don't think they'll ever come close to exceeding the 20,000 bird limit.

In setting up and running their facility successfully, the Schuellers have faced many barriers. The biggest challenges they have encountered over the years include consistent volume/throughput, as well as labor. As noted earlier, despite having identified a need for a processing facility via a survey of potential customers, in the end, no other producers raised birds specifically for or put money into the venture. Shortly after they finished their facility, other producers began setting up their own facilities, some of them in response to the 1,000 bird exemption, which cost the Schuellers money. And, use of the facilities has fluctuated wildly over the years. As for labor, Joe works full-time, Karen does the books, and they have six part-time staff who work at the processing plant. As at other plants, finding good labor has been a consistent struggle. The Schuellers' children aren't interested in working on the farm and Joe and Karen have been unsuccessful with succession plans thus far. Other challenges have included the cost of feed, which has increased significantly in the past decade and is extremely variable, as well as buyers who desire fresh birds but are reluctant to commit to regular sales, or who provide little notice and expect unreasonable turnaround time on orders.

On the positive side, the Schuellers have had good experiences and encountered few issues with state inspections, and Joe noted that poultry processing is one of the best businesses he's been in because he gets paid almost immediately. Their processing facility (separate from the ranch) now grosses about \$80-85K per year.

Corfini Gourmet

We talked with Zack Agopian, Director of Sales and Business Development at Corfini Gourmet, in July 2015. Launched in 2004 and based out of both Portland and Seattle, Corfini is a mid sized meat distributor focused on sustainable and local meats, including beef, poultry, pork, lamb and game, and seafood. They are a chef driven company and sell to restaurants, grocers, catering companies, foods trucks, corporate food service, healthcare facilities and academic facilities. Corfini has a USDA-certified portion control room and can produce unique cuts that they process in house. They also do some dry aging. They source their poultry from Draper Valley (NW), Mad Hatcher (WA), GMP (Midwest), Koch (large conventional, Midwest), as well as Just Bare (based in the Midwest, sustainable focus). They sell whole chickens as well as breasts, thighs, wings, and legs.

One of the biggest barriers they face is getting into the systems that sell to institutions. From a purely economic standpoint, large distribution companies are more efficient, more affordable, and already set up within the buying groups that institutions work with (e.g., Avendra, FoodBuy). Corfini could potentially be in these buying groups too but would have to pay a fee and don't

know if they'd be a fit as not big enough to take the slim margins that larger distributors are willing to accept – potentially there would be some buying groups that would be a good fit (e.g., Premier) but they are not totally sure, would need to talk to and find the right person. As one example the local Providence hospital system has 3 locations – it's prohibitive for a single poultry farmer to drop at all these sites due to travel. Corfini could help distribute, but when freight charges for Corfini are added, it becomes too expensive for the buyer. A potential solution to this would be contracts to guarantee pricing and volume (e.g., for a whole contract year), something that currently doesn't exist because meat production is highly competitive, with few barriers to entry.

Processing issues are also a challenge for Corfini. They have had issues where a processor has messed up the processing of a producer's product and Corfini has been unable to purchase the product even though they know the poultry is high quality. Greenwashing is also an issue, with some competitors mislabeling the provenance of birds. Corfini has begun using a whole animal model with some institutions, experimenting first with whole hogs. The retail model of how meat is cut up isn't efficient for institutions - assigning values to different cuts is very market driven. If you buy the whole animal, costs go down significantly. This may be a potential solution for selling to institutions, but barriers include: demands flexibility with menus, added labor/further processing is required, and most notably, chefs must be educated on new cuts as well as how to utilize parts that would formerly be considered waste.

To really change things, Agopian noted the need to address the bulk of business that is done through contracts with institutions (that is, not just working within the 10% off-contract flexibility that many institutions have, but actually changing the primary contracts). Doing this with meat by changing the model from a retail model (cut parts) to foodservice (whole animal) may be one solution.