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A Chicken in Every Lot: The 2007 Chicken Ordinance in Missoula, Montana

Kate Margaret Sheridan
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A CHICKEN IN EVERY LOT:
THE 2007 CHICKEN ORDINANCE IN MISSOULA, MONTANA

By

KATE MARGARET SHERIDAN

Bachelor of Arts, St.Olaf College, Northfield, Minnesota 2008

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Approved by:

Sandy Ross
Dean of the Graduate School

Neva Hassanein, Chair
Environmental Studies

Jill Belsky
Society and Conservation

Sarah Halvorson
Geography

Sheridan, Kate, M.S., Spring 2013

Environmental Studies

A Chicken in Every Lot: The 2007 Chicken Ordinance in Missoula, Montana

Chairperson: Neva Hassanein

In 2007, in response to the growing practice of urban chicken-keeping, the City Council of Missoula, Montana passed an ordinance allowing six chickens per urban lot. In doing so, the City Council and Mayor of Missoula followed the lead of many other cities seeking to expand urban agriculture and food security opportunities through the keeping of microlivestock. Despite the increasing interest in urban microlivestock, few studies have looked at the perceived benefits for both the household level, and for the city. This paper gives context to the implementation of a specific ordinance by describing the benefits and challenges experienced by twenty chicken-keeping households in Missoula. Recommendations for the Missoula ordinance are also discussed, based on the interviewees' experience and the efficacy of the current permit system.

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CHAPTER ONE

Introduction: Bringing Back Urban Farming

Hazel and I sit around her kitchen table, warming our hands on mugs of green tea. It is a deceptively sunny Saturday in October, with a strong fall chill in the air. The picture window provides a perfect view of the chicken coop, which Hazel gestures to frequently, telling the story of the flock. She points out where a hawk swooped in and took off with pullets, the garden where the chickens get to wreak havoc at the end of the season, and the new fence, which keeps the interference of nosy neighbors to a minimum.

The chicken coop, with its green roof and rustic wood paneling, bridges past and present. It sits in the same spot a chicken coop once stood when the house was built in the 1940's. Hazel's husband's grandparents built the house, which, at that time was outside the Missoula city limits. At just over an acre, the lot was not suitable for farming, but they kept chickens and rabbits on the property to supplement their diet. Two generations and six decades later, Hazel raises chickens, grows vegetables, and keeps honeybees. She's very aware of this history, as she's tells me "we're bringing back the urban farming thing . . . for this exact property."

Hazel loves discussing her chicken flock and her motivations for raising them. Our conversation covers the highs and lows of chicken-keeping: the incredible homegrown eggs, the battles with neighbors, predator problems, and the effect backyard chickens have had on her two young sons. Hazel is adamant that she does not want to be a farmer – she likes the freedom her independent chickens give her to travel or spend an evening away – and besides, the backyard does not give her room to expand into a full-fledged farm. She appreciates being able to carve out a small piece of urban

sustainability, feeding her family the freshest eggs possible and exploring how to live well within the city limits.

Hazel and her family are part of a nationwide movement of new chicken-owners who are raising backyard flocks within the confines of the city. No longer a strictly rural activity, these new chicken-keepers are bringing city and country together – and sometimes, in the case of Hazel’s house, returning to the homesteading activities of previous generations. The phenomenon is reflected in numerous *New York Times* articles, the April 2013 issue of *Martha Stewart Living*, the number of do-it-yourself guides for backyard farming, egg-centric cookbooks, and the reprinting of books from the Victory Garden Era.

City policies are changing in response to this movement for urban agriculture. Nearly one hundred municipalities in the United States and six in Canada allow backyard chicken flocks (Cockrall-King 2012:212). Nutritionally, environmentally, ecologically, and aesthetically, chickens are back in the yard and eggs are on the menu.

Approximately 150 years ago, farm animals were a more common occurrence in the urban landscape (Steinberg 2002). In the 20th century however, the urban environment in North America came to be characterized by its general absence of agriculture. Rural areas supplied the majority of food to cities. In the 21st century, though, our tendency to think of agriculture as an activity strictly reserved for rural areas appears to be shifting. A number of new groups have emerged to promote and support this change, in the form of food policy councils, non-profit organizations, and planners interested in local food systems (Scherb, et al. 2012:2).

Urban agriculture is defined by the Community Food Security Coalition as “the growing, processing, and distribution of food and other products through intensive plant cultivation and animal husbandry in and around cities” and “includes green belts around cities, farming at the city’s edge, vegetable plots in community gardens, and food production in thousands of vacant inner-city lots” (Brown and Carter 2003:1). The concept and practice of urban agriculture is extended to “fish farms, farm animals at public housing sites, municipal compost facilities, schoolyard greenhouses, restaurant-supported salad gardens, backyard orchards, rooftop gardens and beehives, [and] window box gardens” (Brown and Carter 2003:1).

One of the most recent – and perhaps most controversial – changes in the urban landscape is the increase in small animals traditionally raised on farms, or microlivestock. Microlivestock can be raised within the confines of the typical urban lot, due to their small size and limited land requirements. They include: chickens, ducks, turkeys, geese, quail, rabbits, pygmy goats, and bees (Wood et al. 2007:70). Animals present more complex issues than gardens in the urban environment, in terms of regulation, public health, and potential nuisance issues (Bartling 2010, Butler 2011, Salkin 2011, Wooten and Ackerman 2011).

While the literature published contains information on ordinances – what they look like, where they exist – it does not address the effect of policies on the individual level. Accordingly, this research project extends beyond scholarship and practitioner resource by focusing on one city, Missoula, Montana, which is influenced by the national trends in urban agriculture, particularly within the Pacific Northwest region. Here, I describe these national trends and actions and tie it back to how they may (or may not)

play out in this one particular place. I take my research to the individual or household level, to see how chicken-keepers in Missoula are influenced by both national trends and city ordinances.

The primary question in my research is: what are the benefits to keeping chickens in Missoula? Also, what can we learn about why cities adopt policies related to microlivestock, and what are the debates around these policies? The study is grounded in urban agriculture and focuses on the effect of Missoula's chicken ordinance. Why and how did the City of Missoula enact a chicken ordinance, what are the debates surrounding the establishment of the ordinance, and how do the effects of the ordinance play out on the household level?

Significance

In the 19th century, microlivestock was an essential aspect of the urban household economy in America. Small farm animals provided important sources of protein in exchange for kitchen scraps and organic waste. For example, “working class women fed their families with pigs that fattened on city garbage” and dairy cows provided milk (Steinberg 2002:159). This was essential sustenance for working class families, although urban households of all social classes kept animals for food. Manure from microlivestock contributed fertility to the urban environment, and surrounding vegetable farms, which was part of the “regional soil cycle” and a characteristic of the “organic city” (Steinberg 2002:159). The organic city was “a place swarming with pigs and horses and steeped in mountains of manure” which “was dirty, but also had a certain social and environmental logic” (Steinberg 2002:159). However, the presence of microlivestock in the urban environment shifted during the 19th century and, by the beginning of the 20th century,

microlivestock were rarely found in the urban environment in the United States. A combination of factors contributed to this expulsion, including changing perceptions about public health and the urban environment. Scholarship on microlivestock has been done in the areas of policy and planning to examine the reversal of this trend in the 21st century. I use this scholarly work to provide background on animals in urban agriculture, as well as popular literature (newspaper articles, do-it-yourself books) and documentaries.

Part of understanding the return of animals to the city is understanding how the conventional food system moved households away from self-provisioning. A small chicken flock was once an integral aspect of every household. When refrigeration became a more common method of preservation though, refrigeration experts decided that “[p]eople needed to give up the outdated idea that the only good egg was a local and recently laid egg” (Freidberg 2009: 86). Yet, as becomes clear, current chicken-keepers feel that the only good egg is a local (backyard) and recently laid egg, including one in particular who devised a specific definition of what a “good egg” means to her.

To explore these questions, this research took the follow approach:

1. To review existing literature on the rise of urban agriculture in North America, and on microlivestock as an aspect of urban agriculture. This literature includes scholarly work in the disciplines of policy, urban planning, and geography, as well as popular literature such as newspaper articles, do-it-yourself books, and documentaries. This review helps to situate Missoula within the context of a larger movement, as well as demonstrate the importance of a descriptive, in-depth study of chicken-keeping in a particular place.

2. To describe and analyze the policy debates and outcomes regarding the 2007 City of Missoula chicken ordinance. This objective is met through an analysis of the minutes of committee meetings and the public hearing on the proposed ordinance, along with newspaper articles. The analysis of the outcome will also involve looking at the permit system and if it is being utilized.

3. To document and analyze the benefits of keeping chickens has Missoula residents in the five years since the passage of the ordinance, through twenty semi-structured in-depth interviews.

Several studies have mentioned the difficulty of quantifying change in response to a chicken ordinance, either within a city, or nationally. For instance, Cockrall-King interviewed urban farmer Michael Levenston, who discussed the 2010 Vancouver (BC) chicken bylaw, where only seven people registered their chickens with the city.

Levenston's "point was that a wave of new policies are symbolic of change, but did they really amount to change in itself?" (2012:167) I aim to document where and how change has occurred in Missoula and to what extent it has taken place.

CHAPTER TWO

Literature Review: Chick Lit

The term microlivestock was first used to describe urban livestock in the US in a white paper by University of Oregon law professor Mary Wood and her colleagues (2010a). They examined ordinances from a sample of 43 cities, and detailed the nuanced differences and allowances according to type of animal. In addition to the ordinances, the paper draws heavily on instructional manuals such as *The Backyard Homestead* and Novella Carpenter's *Farm City*, which is a personal narrative about growing produce and raising microlivestock in Oakland, California. Wood et al. also published a summary that describes urban homesteading as "part of a worldwide movement known as relocalization, which seeks to build local resilience on several different fronts" and breaking "down distinctions between farm and city life, drawing both individual and community value from productive use of property within city borders" (Wood et al. 2010b:69, 74). The authors recommend that "[r]egulatory changes should be encouraged nationwide to begin the process of building expertise in managing microlivestock in residential neighborhoods" (Wood et al. 2010b:77).

In a similar analysis, William Butler looked at 22 US cities "that recently revised their animal control ordinances to allow urban livestock," identified through news media, legal studies of ordinances (chickens only), and food systems planning literature. In his historical context, he places the blame on the dearth of urban agriculture in the US on industrial food system "virtually extirpating animal husbandry from city limits," although they were not alone, as "[u]rban planners were complicit in this exodus of animals from

the city utilizing land use regulations to push agricultural activities out of the city” (2011:4). Butler focuses on ways to mitigate potential issues beforehand because the “return of animals to the city is a delicate matter as the potential for disease, pestilence, odor, and noise nuisance from husbandry activities has not gone away” (2011:5). He details a brief history, drawing heavily on upon Carolyn Steel’s *Hungry City* to illustrate the way design, planning, and the industrial food system have given rise to the current urban environment.

Butler looks at type prohibitions (e.g. types of animals allowed), district or zone limits (e.g. lot size, setbacks, accessory structure design, and site placement), and site level restrictions. The “regulatory planning tools to mitigate potential nuisance and public health concerns” vary considerably as city policies range from creating restrictive zoning so that urban livestock are only on large lots on the periphery to more flexible rules (Butler 2011:32). The latter allow interpretation by regulatory officials and owners to “take into account the particularities of the animals, site conditions, and surrounding and make a judgment about the appropriateness of animal husbandry on a case by case basis” (Butler 2011:32).

Professional planners have a potentially large role here, but have been reluctant to become involved in food system work because they “perceived the food system to be a rural rather than urban issue, underscoring the false dichotomy between urban and rural food policy” (Mendes et al. 2008:437). This is reiterated in other urban planning literature, as food and livestock production are associated “with rural areas and activities and [urban planning has] defined urban areas as locations explicitly associated with the non-existence of agriculture” (Pinderhuges 2004:198). Furthermore, “[u]rban agriculture

is seen as making a minute contribution to national food stocks” especially compared to industrial agriculture (Pinderhuges 2004:198).

A notable shift is occurring among planners and public health officials however for instance is the Public Health Law and Policy group’s recent publication, *Seeding the City*, contains a section on animals with model ordinances and language, depending on classification of home garden, community garden, or urban farm. The authors note that “[m]any communities have existing laws related to the keeping of poultry and farm animals . . . [s]ome are remnants of earlier times, when it was common to keep a kitchen garden and raise animals at home for food” (Wooten and Ackerman 2011:34). The report focuses on beekeeping and chickens because they are “two of the most common forms of urban livestock” (Ibid.). Land use considerations include “factors specific to the use of land for raising animals without causing nuisances or other negative impacts for neighboring property uses” (Wooten and Ackerman 2011:34). A brief section entitled, “Animal Welfare and Control Laws,” describes the designation in many cities of microlivestock under animal control or welfare within the municipal code, the option to require consent of a majority of neighbors, licensing and permitting, and animal housing requirements. *Seeding the City* provides the tools to construct an effective ordinance while leaving room for nuance, depending on the city’s “environmental density, climate, political will, and natural predators” (Wooten and Ackerman 2011:34). While this study does not delve deeply into urban planning, I explore some of these particular issues in Missoula.

While it is important to understand the overall regulatory structure, keeping chickens is primarily an individual, independent activity, as I found in my interviews.

People who keep animals rely on a variety resources, from how-to manuals to internet sites. As a testament to the rise of microlivestock in cities, older books are being reprinted, such as *Feeding Poultry and Rabbits on Scraps* from World War II and *The Integral Urban House*, initially published in 1971.

New publications have also come onto the scene. *Your Farm in the City* by Lisa Taylor gives an overview of keeping chickens, ducks, rabbits, goats, and bees. The book is useful for the prospective microlivestock owner, giving suggestions for breeds appropriate to the confines of the city and considerations in care and maintenance. *The Backyard Homestead Guide to Raising Animals* gives three different backyard design plans and animal type and number recommendations, depending on lot size. It provides in-depth information on animal care and breed specification.

While Taylor advises her readers to ensure the legality of microlivestock, “[c]heck with land use codes to make sure it is permissible to for you to keep livestock on your property,” the advice ends there (2010:266). *The Backyard Homestead* does not elaborate, noting “[i]f existing zoning laws are not livestock friendly, several websites explain how to get the laws changed” (Damerow 2011:5). These manuals provide excellent advice for people allowed to keep microlivestock. They are also a likely source of inspiration, although they give no direction to bridge the gap to enacting an ordinance. This project does not dispense information on how to properly care for microlivestock, but looks at do-it-yourself manuals as a way people are learning how to care for animals in an urban environment.

Popular literature seems to be an important way information is shared among urban homesteaders. Academic studies report using newspaper and media reports; in

addition, city codes are available online for most municipalities, sites like City Farmer provide a clearinghouse of recent report on urban agriculture, and online forums or communities share information among members. How-to videos and mini-documentaries are common ways to share knowledge. City councils, food policy councils, and health departments also post information for city residents and may include notes from meetings online. Due to the dearth of academic literature on microlivestock, popular literature will prove to be an important source of themes and concepts related to keeping animals in an urban environment.

In these articles, many assumptions are made about why people are keeping microlivestock. A few of the articles address people's motivation to keep animals. Two in particular compare factory farming alongside backyard urban farming (LeVaux 2012, Blecha 2007). Urban farming is seen as an antidote to the inhumane conditions of the industrial system for raising livestock. In addition, motivations for keeping chickens included that participants "express and enact a strong desire to make cities more ecologically sustainable and socially interconnected . . . [t]hey see [sic] to modify the ecologies of their backyards, neighborhoods, and cities as well as develop new sociabilities not based on capitalist relations" (Blecha 2007:268).

Blecha (2007) interviewed eight new urban chicken-keepers (NUCKS) in Seattle and Portland that she reached through personal contacts, Seattle Tilth's 2003 chicken coop tour host sites, and a posting through the City Chicken website. She conducted semi-structured, in-depth interviews with her study participants, and gathered demographic data. She characterizes her group as mainly middle to upper-class, college-educated, white, urban Americans.

While Blecha's work is a good starting point for qualitative research, I found that looking at a broader picture of the food movement provided stronger conceptual structure. The study of microlivestock has relevance in the areas of public policy and urban planning for those looking for tools to implement such policy. It also relates in the following three works about food system design. The following concepts guide my analysis in the role of the chicken-keeper within the food system, and help describe how the activities of chicken-keepers in Missoula may have the potential to effect change.

Carlo Petrini, of the organization Slow Food, has developed tools for empowering consumers, which he christens "co-producers," to create a food system and culture that is "good, clean, and fair." This term gives co-producers an active role that comes with responsibility, rather than the passive connotation of consumer. Urban chicken-keepers can be viewed as co-producers because they still rely on farmers for the majority of their sustenance. As I found in the interviews, keeping chickens for eggs changes their owners' thinking and habits around other aspects of the food system, such as obtaining chicken feed from a local, organic source, or thinking about where the food they were eating with their eggs was coming from. In one of Cockrall-King's (2012:119) case studies, her interviewee was "[c]oncerned about climate change" and "turned to growing food, figuring it would be a low-impact action that might be a nice change because it was about something you *could* do."

In "Coming Into the Foodshed," Kloppenburg, et al. (1996) see the individual as an actor within the foodshed. Analogous to a watershed, a foodshed encompasses the region where a community's foodstuffs emanate; in the article, it is used to "analyze the existing food system, to imagine the shapes an alternative might take, and to guide our

actions” as the concept of foodshed “provides a bridge from thinking to doing, from theory to action” (1996:34). Secession is “withdrawing from and/or creating alternatives to the dominant system” rather than challenging it directly (1996:38). Succession is “slowly moving over” from the conventional food system to the foodshed (1996:38). The two of these concepts “presents people with hundreds of small opportunities to realistically take increasingly important steps away from the global market economy and toward the moral economy, “ which is comprised of the alternative producers and eaters who refuse to submit without contest to the dictates of the globalizing food system” (1996:38). Another essential part of the foodshed is considering the concept of “distancing,” (1996: 35), where consumers are separated both socially and economically from the creation of their food. The foodshed seeks to draw these closer in, and reduce the schism that has developed between the process of growing and distributing food and the eater.

Even though urban residents have limited space, they still have many opportunities in their daily life to move away from the global market, as we shall see. Developing the foodshed is not about becoming isolated. It’s about being “self-reliant rather than self-sufficient” (1996:38). Individuals in the foodshed are decreasing their dependence on food from far away places, while developing and valuing relationships with producers in their foodshed.

These elements of co-producer, foodshed, succession, and secession build on Carolyn Steel’s vision of a sitopia, which is about “dwelling holistically” within the urban environment and not being confined to specific disciplines (2008:305). The concepts of Kloppenborg and Petrini’s work come together in a unified vision, to what a

foodshed with co-producers and their opportunities to eat well/work together might look like. Steel acknowledges that while the environmental crisis is overwhelming to the point of inaction, there are a few entry points. She recognizes that the food system has a profound impact on the environment and the way we use energy, but it also has a lot of potential for good. She invites her readers to consider food more, connecting food to a farmer, meat to an animal, seasonality, and overall, to enjoy food more. Steel wants the design of the city and its political, social, and physical structures to reflect and support these aims.

Sitopia is a way to think about the place and design of food within the city. Like Kloppenburg, Steel sees the “global food system [as] a network in which we are all complicit . . . [i]f we don’t like the way it works, or the world it is creating, it is up to us to change it” (2008: 324). At the same time, it has a great deal of potential for good, for the health of the individual and the health of the community. Sitopia is a paradigm for figuring out the potential of food in urban areas.

Steel queries “what if we used food differently? To recognize that while the atmosphere is what we breathe, the *sitosphere* (from *sitos*, the ancient Greek word for food) what we live in?” (2008:307). Indeed, Cockrall-King (2012:79) agrees: “We are just starting to rethink our cities *deliberately* with our food needs in mind.” In all likelihood, food will be one of the defining issues of this century.

Food also has the potential to bridge the cultural urban-rural divide, which is slowly being realized through activities like chicken-keeping.

Once you begin to recognize that we live in a *sitosphere*, city and country emerge as one continuous territory in which *terroir*, traditionally linked to the soil, is seen to transcend the urban-rural boundary. Locality,

seasonality, identity, variety, tradition, knowledge, trust: all are as important for cities as they are for the countryside (Steel 2008:321)

Steel recognizes that utopia is a troublesome concept, but sitopia would be about incorporating the best ideas for food production in the urban environment and integrating them with the rural environment. In a more playful metaphor for sitopia, one of Cockrall-King's interviewees describes her work in documenting productive fruit trees in the city as "putting on her fruit goggles" (2012:216). They're not the rose-colored glasses of utopia, but instead, a way to view the what urban agriculture can do.

Most profoundly, Steel describes sitopia as a way to "alter power structures" that currently exist in the conventional food system and "use them as a force for good" (2008:307). Giving consumers the new name of co-producer and providing opportunities to set away from the conventional food system turns these power structures around. As we will see, people want the opportunity to have a tangible connection to food, including productive food animals, in their lives, and it important allow these opportunities through urban policy. In the next chapter, this paper describes what sitopia looks like in Missoula, what participants in the ordinance have to say about it, and why it is worthy of discussion in terms of the foodshed and food system.

CHAPTER THREE

Context and Methods: Microlivestock in Missoula

In Missoula, a complaint to Animal Control in the spring of 2007 about chickens began a six-month-long public debate on whether or not chickens should be allowed within the city limits. After subcommittee meetings, articles in the newspaper, letters to the editor, and a public hearing, the City Council voted to pass an ordinance permitting up to six chickens on properties within the city limits. Five years later, chickens in Missoula have become a much more common occurrence in the urban environment. An analysis of the arguments put forth by the proponents of the ordinance provides a useful reference point for understanding what urban chicken-keeping in Missoula looked like after the ordinance since its passage, both for the individual chicken-keepers and in terms of the dialogue around chickens. In Missoula, as in other cities, the question of urban chickens became quite controversial, with proponents glorifying chickens and opponents vilifying chickens. The focus on Missoula allows for an in-depth case study of a specific ordinance. Here, I mean case study as a research strategy, defined by Hesse-Biber and Levy (2011: 256) as “an expansive field within the qualitative paradigm” wherein the researcher attains a “holistic understanding of a problem, issue, or phenomenon within its social context.”

Missoula's Chicken Ordinance

The impetus for a chicken ordinance for Missoula came when Taylor and Morgan Valliant were reported to Animal Control by a neighbor, and asked to remove their flock from the city. *The Missoulian*, Missoula's daily newspaper, reported the incident, which sparked a conversation among city officials, residents, and hopefuls chicken-owners about whether or not chickens should be incorporated into the urban environment.

According to Mayor Engen, "in many cases, folks we were already raising chickens, so I think this was an acknowledgment that raising chickens is a practice in our community." In Missoula, like many other urban areas, "there is a trend toward local agriculture [and] this is a manifestation of that trend on the ground in our community." Good policy allows participants to take part in an activity, while simultaneously allowing others to not be bothered by such activities. Mayor Engen summarized this as "if we're marching down this path to make sure we do this in a way that allows folks to not only have had some greater role in food production, but keep their neighbors from wanting to kill them, because of chicken noises" or other nuisances.

The following month, the City Council appointed a subcommittee to revise the city ordinance on urban chickens. The subcommittee worked for several months to develop an amendment. The process included a lively public hearing in August, and research on chicken ordinances in towns of comparable sizes by Paul Hubbard, who was an intern at the Community Food and Agriculture Coalition (CFAC) at the time.

At the public hearing in August, the Urban Fowl Subcommittee presented their research and proposed ordinance. Missoula residents were invited to comment. Of the

twenty-five people who spoke, twenty-one were in favor of the ordinance, and four were against the ordinance.

Mayor Engen asked that those commenting on the proposed ordinance avoid redundancy, so it is difficult to analyze the purported benefits and feared outcomes in the same way that I was able to tally the frequency of occurrences of topics in my interviews (e.g. all proponents may have thought eggs were an important benefit, but they were encouraged to develop breadth, rather than depth of topics, for the purpose of the public hearing). The in-depth interviews then provided an opportunity to further explore these ideas. The public comments are still valuable, however, to get a glimpse of what Missoulians thought chicken-keeping might look like before the ordinance was implemented, and serve as a point of comparison for what has resulted in the intervening years.

The most frequently-cited arguments (meaning more than two people talked about these in their comments) in favor of chickens were: education of children, agroecological benefits, knowing the source of food (and therefore feeling it was safe to eat) and fresh eggs. Two spoke of the way chicken-keeping would build community within neighborhoods. For one respondent and his family, in their previous experience keeping chickens in Atlanta, “we were able to share excess eggs with all of our neighbors, develop relationships that didn’t exist previously” and found that “it’s just a great way to build community” (City of Missoula 2007:11). Two comments were made about chickens as a way to save on food cost and provide food security. This was for both the low-income population in Missoula in general, and for households who felt that chickens “would help defray some of the costs of our food budget since the cost of food has been

climbing significantly in the past year or two” (City of Missoula 2007:12). Other arguments in favor of chicken-keeping included: reduction of organic waste, preservation of agricultural heritage, the right to grow food for ourselves, and the opportunity to engage in an alternative food system, rather than support large-scale commercial egg operations. Finally, in regard to the issue of chicken-keeping as a strictly rural activity, one point was raised that “restricting chicken ownership to only those that live outside of city limits . . . restricts those that are able to afford raising chickens because of property values” (City of Missoula 2007:12). This comment speaks to the power issues inherent around urban residents being self-reliant for food.

After a few changes, the chicken ordinance was finally approved by the city council in December, allowing six chickens per lot, with stipulations to acquire a permit, and to prevent wildlife interactions. The first permit was procured in February 2008. There are eight stipulations that make up the Missoula Chicken Ordinance, which are listed below. For the original language, please refer to Appendix A.

Table 1: Missoula Chicken Ordinance Summary

Missoula Chicken Ordinance Summary
1. Six chickens per property
2. Annual permit required, for \$15
3. Chicken coop provides protection from the elements and predators, is well-ventilated and properly maintained by chicken-owner
4. Chicken coop must be more than 20 feet away from a neighbor’s building or structure
5. Chickens kept inside coop from sunset to sunrise
6. Chickens have access to shelter during the day, and are adequately protected from predators
7. Feed must be kept in a rodent and predator-proof container
8. Nuisances – odor and noise – are not allowed

Mayor Engen pointed out “typically what’s proposed is never as good as what it’s purported to be, and what’s proposed will never be as bad as opponents suggest it will be.” As a result, “we don’t fix the food system by raising chickens in backyards in Missoula” but “we also don’t destroy neighborhoods and people’s quality of life by raising chickens.” In his role as mediator, he sees the important part is to work through the concerns and ideas around the issue, and “try to craft legislation that makes sense for the community.”

This research paper seeks to evaluate what has happened in the five years since the ordinance was passed and discover what benefits backyard chickens provide to Missoula residents. This paper will also describe the challenges that have been encountered since the implementation of the ordinance, and whether the crafted ordinance makes sense for Missoula.

Participant Selection

I drew the majority of my participants from the Missoula County chicken permit records. My initial group of interviews, conducted in the spring of 2012, were gathered through snowball sampling. For my fall interviews, I needed a more substantial group to draw from and a selection method that was more random and replicable and replicable; the method could be utilized by anyone else in an urban area with a permit system. I was initially interested in talking to people who were keeping chickens without a permit, despite the ordinance, although finding enough subjects utilizing a replicable method would have been challenging.

The city has kept a paper copy of every permit at the county Animal Control office. The binder is organized in reverse chronological order, with the newest permits at

the beginning. The permits are considered public record, so I contacted Mayor John Engen to request permission to look through the permits and contact a selection of permit-holders. Mayor Engen responded promptly, saying that while they “are typically precluded from assembling names and addresses for purposes of mailing lists and solicitation.” His office checked with the city and county attorneys to ensure it was an appropriate action to take in the case of university research (personal communication, September 10, 2012).

I received permission from the city and county lawyers because the subjects would remain confidential. All identifying information - audio recordings, contact list, transcriptions - will be destroyed at the completion of the research project. Of these 133 permits currently in the book, I randomly selected 35 potential subjects to contact. I then entered their names, addresses, and phone numbers into an Excel spreadsheet and randomly selected permit-holders to call. Some of the contact information on the older permits was outdated, and phone numbers had been disconnected or changed. As I quickly realized, the lack of updated permits meant that not all of the contacts who had initially gotten a permit continued to renew their permit.

Of the people I spoke to, everyone was both gracious and enthusiastic about volunteering to participate. No one refused to participate in my study. I did leave a number of messages that were not never returned, although this could be attributed to the outdated county records.

Description of Participants

All the interviewees were either current residents of Missoula, or had been a resident during the past four years. I conducted interviews with twenty households and

spoke with a total of twenty-two participants. Eighteen of the participants were female and four were male. The age of the chicken-keepers generally ranged from 20s to 60s. The youngest chicken-keeper was 12 years old, and she participated in her mother's interview.

When I called the potential participants, I described my study, linking my work with the University of Montana graduate program and the approval of city and county attorneys. Some participants initially expressed concern when I explained that I had received their name and number from Animal Control. "Oh, they know us well – they've been by to visit several times," they said, "our neighbors called them repeatedly at the beginning to report us." I explained where I obtained their contact information and, most importantly, that their participation in the study would remain confidential. I also refrained from discussing the identifying details of my subjects with anyone outside the study.

In all the interviews, I was able to speak with the person whose name was on the permit. In nearly all cases, the permit-holder was female, which is why the majority of my respondents were women. In every household of more than one person, the permit-holder was female. On several occasions, multiple family members joined the interview or gave input, but the formal interview was conducted with the permit-holder.

Food is a very personal issue for many and conversations occasionally turned toward philosophies and politics, as well as personal health issues. Also, several subjects had intensely negative relationships with their neighbors, of which the chickens were emblematic, and providing confidentiality – and turning the recorder off when necessary – provided a secure space to describe as much as they wanted.

I conducted all but two of my interviews at the chicken-keepers' homes. I had suggested meeting with them at their homes, as I could see their chickens and coop, and that it would be a comfortable place for them. We talked at kitchen tables or, on days when the weather was nice, we sat outside and watched the chickens during our conversation. One interviewee no longer lived in Missoula but was willing to be interviewed during a weekend visit, so we spoke at a coffee shop. Another person had to leave town for work, and in this case we spoke over the phone and I visited his chicken flock after the interview.

Interviews lasted between twenty minutes and one hour, with the average interview just over thirty minutes. They were recorded with a digital audio recorder and later transcribed for accuracy, and coded for major themes. I also spent time touring the chicken coops, where conversation continued (sometimes more freely, in the absence of the recorder), beyond my predetermined set of fifteen questions. The semi-structured interview guide, which can be found in the appendix, covered the following topic areas: participant's history of chicken-keeping, interactions with neighbors, city policy, and the food system in general. I developed it based on major themes present in the transcript from the public hearing, and expanded it to explore other topic areas in the literature on urban chicken-keeping.

Participants represented a variety of neighborhoods throughout Missoula, which provided geographical diversity, as well as demonstrated how certain problems, whether it was particular predators, or neighbors' perceptions, were more apparent in certain parts of the city than others. I was able to interview people in the following neighborhoods: University, Northside, Westside, Rattlesnake, Rose Park, Franklin-to-the-Fort, Moose

Can Gully, Lewis and Clark, South 39th Street, and Southgate Triangle. The interview in the South 39th Street neighborhood allowed me to learn about the perspectives around chicken-keeping on the edge of town, in an area that had been more recently incorporated into the city limits. The only area I was not able to contact someone was in the Upper Rattlesnake. The Upper Rattlesnake is located near the Rattlesnake Wilderness, and I would have been interested to learn about the frequency of predator interactions there, as subjects in both the Lower Rattlesnake and University District mentioned concerns with large predators such as bears.

Strengths and Limitations of Methodology

I chose semi-structured, in-depth interviews as my primary methodology because it would allow me to speak with chicken-owners about their motivations and challenges in a meaningful way. Qualitative research allows for greater flexibility in the interviews; I could ask participants' clarifying questions or, if I had touched upon a topic they were particularly passionate about, could explore that particular idea further. The structure of the interview ensured that I would be covering the same general topics in each interview, leading to consistency in the data collection. The openness of the interview allowed ideas to emerge and "room for the conversation to go in unexpected directions," because my participants "often have information or knowledge that may not have been thought of in advance" when I devised the interview guide (Hesse-Biber and Leavy 2011:102).

One area where this was particularly useful was the question of economic importance in chicken-keeping: "Does keeping chickens save you money?" This issue came up repeatedly in the literature and was often assumed as a benefit, in both the DIY books and in the city's public hearing. I received diverse answers to this question, which

gave me more insight into why the subjects kept chickens than whether it was a cost-saving measure. The consensus was no, that a flock of only six chickens did not reach the economy of scale to be cost-effective. Some respondents that were either dividing costs among several housemates, or who kept more than six chickens felt like it saved them money. Otherwise, responses relating to food security, the importance of knowing where food came from – and what one’s food was eating, and pleasure derived from keeping a flock of chickens further illustrated the benefits and motivations for chicken-keeping.

Analysis of Data

I transcribed all my interviews and coded them for major themes and concepts. First, I open-coded the transcriptions, noting all concepts, whether or not they were a part of the interview guide. Next, I organized the concepts under the major themes outlined in my interview guide: benefits, challenges, interactions with neighbors, the role of the city, the permit system, urban and rural interactions, and the food system. I also counted occurrences for the initial questions in the interview, including how many chickens each subject kept and how long they had been keeping chickens.

CHAPTER FOUR

Results: Chickens and Eggs

Keeping chickens can be a vital aspect of an urban household. In this section, I will discuss the importance of urban chicken flocks on the household level, and what it means for individuals and their families. In the following section, I look at what chicken keeping does on a larger scale, for the city and what it may do for the food system as a whole.

First of all, the chicken ordinance allows urban residents to obtain a fresh source of protein. Second, the ordinance gives people the opportunity to engage in urban sustainability.. Finally, as a result of this, they have an increased sense of self-efficacy and control over the choices in their lives pertaining to food in particular and sustainability in general.

Benefits

Which came first, the chicken or the egg? It's an age-old conundrum that's stymied us in discussions around evolution. It's also applicable to public policy. Why do people keep chickens in the city? Whether they're after a "good egg," or the pastoral pleasure of having a small flock of chickens in the backyard, the chicken-keepers I spoke with found their endeavor quickly became more than a means to an end.

Table 2: Benefits to Keeping Chickens:

Benefits to Keeping Chickens
• Eggs
• Eggs with high nutritional content
• Enjoyment
• Can control what goes into eggs
• Better value for eggs
• Agroecological services
• Have excess eggs for trading or sharing
• Education
• Know source of food

Every single person I interviewed named eggs as a benefit. It was foremost on their minds and foremost on the list of benefits their flock provided. Even Lauries’s household that kept only one chicken treasured the single egg she provided daily, and saw it as an important piece of their local diet. Chicken-keepers waxed poetic about the taste and merit of their eggs. Krysty said “the eggs are phenomenal, they're delicious, there's nothing that compares.” They often compared their homegrown eggs to ones bought at the store (especially the expensive ones) and how disappointed they were, when they had to buy eggs during the winter or when their chickens were molting. Krysty talked about splurging on a carton of this eggs, hoping to find something close to what they had become accustomed to. Instead, “my husband cracks one of them the other morning to make breakfast and he's like, these eggs just aren't the same . . . the integrity of the egg itself is not the same.”

In addition to the egg itself, the chicken-keepers placed varying levels of value on their harvest. Six respondents said that the eggs they raised were more nutritious eggs than those available at the grocery store. This was either because they added a supplement to their feed, like flax, gave them organic feed and vegetable scraps, or let

them occasionally roam the backyard, where they could graze from a smorgasbord of grass, bugs, and the leftovers in the vegetable garden.

Fresh eggs also had an aesthetic component, and chicken-keepers were proud of how dark orange the yolks of their chicken eggs became, which they used to gauge the nutrient content and freshness of their eggs. Luella noted that store-bought eggs “don’t even come close to tasting the same as the fresh eggs I have here and I just know I’m getting better nutrients with having fresh eggs like that.” Interviewees enjoyed the full sensory experience involved in raising chickens.

For three chicken-keepers, being able to control what their chickens ate was extremely important for their own dietary needs. Luella had been diagnosed with Lyme disease and of her treatment was to eat a vegan diet, “diet is a huge part of taking care of my health and part of that is knowing where my food comes from, how clean it is, how healthy it is.” In addition, the “quality of life those creatures have is really important to me as well.” The one source of animal protein she could consume was eggs from her chickens, since she could ensure they were eating a “clean” diet, as she fed them a combination of feed and vegetables from her garden.

For Chelsea, a vegetarian, chicken eggs were her primary source of protein. She was opposed to the growing methods of soy and concerned about the political implications of her diet. As a naturalist, well-versed in the habits of animals, she was annoyed with the “Vegetarian-Fed” label on egg cartons at the grocery store, because chickens did not naturally eat a strictly vegetarian diet. These all tie into Chelsea’s idea of “good eggs,” which she named as a benefit to raising her own chickens. She defined good eggs as not only being to source chicken feed well, but to ensure they were being treated

properly and doing what birds are naturally supposed to do, such as take dust baths, spend time outside, and eat bugs.

Every person I spoke with drew enjoyment from watching their chickens engage in these activities. They used a variety of adjectives to describe these feelings, from happiness, to amusement, humor, and for Keith and Catrina, “it’s brought really nothing but joy for us.” Luella began to tear up during our interview, when she described how happy her flock of chickens had made her over the past two years, “I definitely notice the happiness they’ve brought to our home . . . I kind of glow whenever I talk about my chickens.” She was inspired to get them because Catrina had them, and “I was just blown away by the energy and presence they brought to her home . . . I noticed it had such a positive effect on her family.”

Chickens are beneficial for households with children, for both the Holly’s daughter, Renae, was especially drawn to the chickens. According to Michelle, when Renae “gets upset, she goes to the chicken coop and goes and pets them and hangs out with them, so it’s her safe place to go.” In Mary’s family, she said she liked “knowing where our food comes from” as well as teaching her young boys how to prepare it, “I have a six year old who’s known how to flip an egg since he was four.”

Sharing excess eggs was another way to connect with others. Nine chicken-keepers named having extra eggs to share with family, friends, and neighbors was a benefit, and Luella felt that the chickens then “provide community as well, so it’s more far-reaching than saving money.” Margaret said “it’s nice to have that community within a community, like bartering food goods.”

Ten chicken-keepers appreciated the agroecological benefits chickens provide. Manure was considered a benefit, especially when they had been purchasing and hauling manure from elsewhere. Several chicken-keepers had set-ups where the chickens had access to their compost pile, where they helped to turn and aerate the compost pile, while searching for scraps and bugs. Chickens kept pests down and could be utilized to help clear unwanted weeds, like the quackgrass that was endemic to Helen's house when she first moved in with her roommates.

One of the arguments raised at the public hearing in favor of chickens was that it saved money. This was an incredibly difficult question to answer, and the responses from the interviews were not conclusive. Only Eddy admitted to having reservations about the economics of raising chickens, to the point he was recommending his housemates abandon the project. Everyone else had different views on the economics of keeping chickens, depending on the resources they had invested in the coop initially, the type of feed they purchased, whether or not they supplemented the feed with vegetables, and if the chickens had incurred any costs from injuries. In Harriet's collective house, she found that "it's really cost-efficient, especially because we have such a large household" where roommates have the option to pay into the shared chicken-keeping expenses of feed and annual permit renewal.

Margaret and Holly's households kept spreadsheets. Margaret's household was able to save money by having chickens, and Holly's household broke even. The rest felt that chicken-keeping was worth it, despite the costs, particularly those that had larger lots and were able to keep more than six chickens. Outside the interviews, I did speak with a few chicken-keepers who had stopped keeping chickens because the predator pressures

were too great on their place in Pattee Canyon, especially since they were spending a premium on local, organic feed from Montana Flour and Grains, and buying heritage breed pullets from a small farm in the Orchard Homes area. Predators proved to be the single largest challenge for chicken-keepers in Missoula.

Challenges

Chicken-keeping isn't all fuzzy chicks and three-egg omelets for breakfast. There are several challenges that need to be considered with keeping chickens. Missoula's ordinance addresses some of these, and has structures in place to help prevent predator conflict, for example.

As a group, the chicken-keepers in Missoula were all very good problem-solvers. The type of person who takes on chicken-keeping in an urban environment also has a penchant for problem-solving, as evidenced by the people I interviewed. I initially expected to uncover a network of resources, both written and people in Missoula, who advised chicken-keepers on what to do and how. Instead, most chicken-keepers problem-solved on their own, Googling queries and surveying blogs and websites to figure out what might be wrong with their chickens. Most chicken-keepers had a reference book on hand, or had at least studied up on chickens by getting a collection of books out of the library. One chicken-keeper had called the county extension agent about a sick chicken, and three chicken-keepers had taken their sick chickens to one of the veterinarians at Pruyne Veterinary Clinic. Seven chicken-keepers dealt with serious illness in their flock, several of which ended in death.

The main challenge that nearly everyone experienced first-hand was the threat of predators, both wild and domestic, either killing or injuring their flock. The city limits of Missoula are precariously close to wilderness areas and urban wildlife conflict is a common occurrence. Raccoons were the most frequently cited predator. Hawks and foxes were also mentioned, and bears were a concern for the household I spoke with in the Lower Rattlesnake neighborhood, located south of the Rattlesnake Wilderness Area. Two interviewees told stories about taking action against the raccoons who killed their chickens, to prevent further fatalities.

The ordinance requires chicken-keepers to provide a “covered, predator-proof chicken house” and that the “chickens shall be shut into the chicken house at night, from sunset to sunrise” (City of Missoula 2011). The outside area, where chickens spend the day, must be “adequately fenced to contain the chickens and to prevent access to the chickens by dogs and other predators” (Missoula Chicken Ordinance). Neighborhood dogs were also reported to be a problem, either killing chickens or injuring them to the point that they required vet attention.

The vulnerability of chickens also brought up an important point about whether chickens are pets or livestock? Traditionally a farm animal and considered microlivestock here, they also contain the attributes of a pet. Having a small number of chickens – up to six in Missoula – allows chicken-keepers to get to their chickens in on an individual basis. Some chicken-keepers even raised them as days-old chicks from the hatchery. Harriet’s household made a point of handling their chickens frequently so that if they did escape, they would be easy to retrieve. This attachment made it all the more difficult when they succumbed to illness, got picked off by a predator, or were eaten by a

neighbor's dog. Laurie made a conscientious decision not to handle her second batch of chickens – as a result they were less friendly, but she needed to protect herself from becoming attached to something that could be so easily lost. Mary said her second batch of chickens are “not as pet-like and we didn't name them this time, no, it was pretty devastating when the raccoons got the last of them” that they had raised as chicks.

Holly refers to her family's flock as “pets with a purpose, because you actually get eggs from them” which is an apt description for urban chickens. The small flock size and the attention they receive in an urban setting makes them more like a pet. When Hazel's chicken got attacked by a hawk, and she spent one hundred dollars on it at the vet, one of her friends asked why the family did not just eat the chicken. They do produce food (which cannot be said of other animals we keep as pets), and they are traditionally farm animals, which means that special considerations need to be made to successfully integrate them into an urban landscape.

Keeping chickens has become a popular activity, nationwide, to the point that kitchen supply store Williams-Sonoma has an Agrarian line, which includes nine different chicken coop designs. What the catalogue does not show in its beautifully landscaped yards is that chickens can be very destructive. Four chicken-keepers complained of destruction, to the point of it being financially challenging because of the amount of damage they incurred on landscaped plants. And despite its value as an agroecological input, chicken manure quickly became a challenge for free-ranging flocks, as mentioned by four chicken-keepers, especially for those with young children who were crawling in the yard.

The Missoula Ordinance forbids roosters primarily for the noise they would create. No one I interviewed was opposed to this, but they found getting rid of chicks that turned into roosters to be a challenge. The easiest way to dispatch a rooster was through a post on craigslist, although the fate of the rooster could not always be guaranteed. Some chicken-owners looked specifically for a farm in the country for their rooster, whereas others, like Mary had some people show up who “looked really hungry.” When his neighbors began to complain about his rooster’s crowing, Kent wrung his neck, and left him near a fox den in the North Hills. Margaret and her housemates discussed their rooster predicament for several weeks (with increasing pressure from neighbors) before butchering him and making stew. She was one of two respondents who named being able to use roosters as stew as a benefit to keeping chickens.

Finally, the harsh winter weather and below-freezing temperatures of Montana were a challenge, and required some extra planning for chicken coops. Margaret found that having at least two chickens helped them keep each other warm; most chicken-keepers also provided a heat lamp.

Chelsea specifically chose several heritage breed chickens that were known for their cold-hardiness. Several other chicken-keepers chose breeds, such as Cochins, known for their feathered-feet, to further guarantee success in chicken-keeping. This involved a little more research and planning on behalf of the chicken-keeper; there were also some concerns about the sourcing of chickens from places like Murdoch’s and Cenex; several chicken-keepers felt that the chicks they originally got from there were not as healthy in the long-term as the chickens they got from Murray McMurray.

Neighborhood Relations

The difficult neighbor relations are not to be minimized or disregarded. Two respondents encountered challenges specifically because of their chickens. In these relationships, the presence of chickens triggered a series of negative interactions. Laurie's elderly neighbor had previous experience keeping chickens and was initially enthusiastic about helping Laurie and her daughter take care of their chicken. As relations deteriorated between Laurie and her neighbor – disagreements over proper care and struggles over control – Laurie finally relinquished ownership to the neighbor. In Hazel's case, the disagreement was less personal and more about the presence of a chicken flock in a suburban neighborhood of Missoua. Hazel and her husband got chickens before the ordinance was passed, but thought they were ok, as their property had been annexed into the city relatively recently, had a history of keeping microlivestock, and was a larger-than-usual lot. Her neighbors complained that the chickens lowered their property values and a conflict ensued between the two, which resulted in frequent visits from Animal Control and finally, a consultation with a city attorney. The issue coincided with actual passage of the city ordinance, and although Hazel thinks she may have been able to campaign to keep a flock larger than six (due to lot size and history of use), she settled for the compromise of following the newly crafted city ordinance.

Hazel's story illustrates the importance of having a city policy, so that there are clear deadlines, and the city is not called in to mediate many individual situations. For both of these situations, where chickens sparked a conflict, I would suggest that there was more going on than the chickens themselves, including, but not limited to beliefs about urban and rural areas. This will be discussed further in the following section, along with a

more in-depth discussion of the role of the city in setting the parameters for microlivestock.

Three chicken-keepers had poor relations with their neighbors before chickens arrived. Each of these respondents described their interactions as hostile, from neighbors calling the police on each other, to conflicts over other pets, and environmental issues, such as pesticide use.

For all of the chicken-keepers who had negative experiences with their neighbors, the scenarios provide an opportunity for improved communication among fellow urban residents. In light of environmental challenges, it will only become more important for urban residents to work together, support each other, and learn how to communicate. I was impressed with the chicken-keepers who were proactive and went to their neighbors *après de chicks*, to ensure that there would not be any major issues. This allowed neighbors to express any concerns they had, and to open the lines of communication in the event of possible problems. When Margaret and her roommates spoke to their neighbors, they were initially reluctant to see chickens on the block. After Margaret and her roommates prepared a plan of action for their chickens, including coop construction, containment, and care, along with a basket of baked goods for the neighbors in question, they were able to talk about the real issue at hand. The neighbors had recently acquired a new puppy, and they were afraid that it might prey upon the chicken flock. The only major problem they encountered since then was the brief existence of a rooster, before it was butchered. Now, though, Margaret is happy to report that opening the lines of communication worked in the end, and “they have chickens now, too” she said with a laugh. Luella’s approach was less systematic, but also worked to keep communication

open. She was pleasantly surprised to find fellow supporters, including a neighbor whose daughter kept chickens, and a neighborhood of enthusiastic kids who visit the chickens on a nearly-daily basis. Luella says “I like to feel I’ve presented myself as an approachable person, that if they had a problem with it [her chicken flock] they would come tell me.”

Despite the severity of some of the negative interactions, the majority of chicken-keepers either had neutral or positive relations. Seven reported neutral relations and said their neighbors did not seem to care either way about the chickens. Six reported positive relations – their neighbors had either commented on the chickens, they exchanged care for each other’s chickens while out of town, or they shared eggs with their neighbors. Giving away excess eggs seemed to be the quickest way to form good relations and were always appreciated (the literature for new chicken-owners encourages such exchanges, especially if neighbors seem reluctant about poultry next-door).

Without overstating the significance of these interactions, they are certainly an attribute to neighborhood dynamics, encouraging neighbors to meet each other, interact, and perhaps share some of what they have. Laurie’s neighbors had a young daughter who loved watching the chickens through the fence so much that Laurie’s husband had made plans to cut a special chicken-viewing hole in the fence for her. Beverly’s neighbors followed her lead in getting chickens, and now they look after the other household’s flock when they are out of town. Over the course of our conversation, Keith and Catrina talked about how they seek out as many neighbors as possible to share eggs with, from the mechanics at the shop behind their house, to the elderly woman who treats their place as

grocery store, shopping for eggs when she is baking. In their small way, these interactions build community in Missoula.

Melissa and her husband no longer had children at home (their children were grown), but “we have a lot of moms and kids in strollers stop by and talk to the chickens . . .the education part for the neighbor is important to me.” Luella’s neighbors’ kids came over nearly every day to visit the chickens.

Sometimes neighbors were surprisingly supportive of chickens, when approached. Michelle initially thought one of her neighbors would have a problem with their flock, and instead he was happy and said “it’s great when you have kids that you know where your eggs come from.” The final word on neighbor interactions: “Honey, it’s your land, you damn well do what you want” Melissa paraphrasing her “old farmer” neighbor, when she told him she was getting chickens, and to please let her know if there were any problems.

Now that the benefits of chicken-keeping for households have been outlined I will discuss why a city government might want to implement an ordinance for keeping microlivestock. I asked my research participants questions about Missoula’s permit system, the role of the city in regulating microlivestock, the distinctions between rural and urban areas, and what keeping chickens means in light of the larger food system.

Through the interviews, it was evident that the respondents valued the opportunity the city ordinance gave them to raise chickens for eggs. The city, through policy and urban planning, be working to provide such opportunities for self-sufficiency and agency. Overall, chicken-keepers wanted the role of the city to be minimal, mainly to ensure

animals were treated humanely, public health was not threatened, and neighbors were not adversely affected.

Role of the City

Chicken-keepers wanted the role of the city to be as minimal as possible. They felt that it was important for the city to establish ground rules. First, the coop site and nuisance management are important to keep good relations with neighbors. Those that want to keep chickens should be able to do so, but those who do not want to participate should not be bothered by it. Harriet said that the city's role should be establishing "basic boundaries that ensure . . . respect amongst neighbors so you don't really infringe upon other folks, while being able to pursue a different lifestyle" and provide a reference point for neighbors to work things out together, first, before going to the city. Making sure that the coop is far enough away from property lines and that nuisances are managed to prevent smells and rodents is also important for respecting neighbors.

Second, nuisances are not only a concern for next-door neighbors, but for all urban residents. These include not keeping roosters, cleaning the coop regularly to prevent smells and rodent infestation, and proper manure disposal. Third, interviewees were concerned humane treatment of animals, ensuring they have proper food and water, protection from the elements, sufficient space and regular care. Setting these parameters defines the place of animals in the city, while giving urban residents the responsibility to follow these rules. Margaret felt that "they [the city] have a right to say what kind of livestock you can have within parameters . . . other than that, I don't think they need to be involved, like there's no support they can really offer." Mary had "a pretty open feeling

as to livestock in town, I think it's more restrictive than it needs to be . . . but I think having chickens is a good step in the right direction" toward sustainability.

The chicken-keepers had varying degrees of knowledge about the actual requirements of the ordinance, but named the same criteria that should be established within an urban area. The Missoula ordinance addresses these issues, but is not actively enforced. Instead, it is more dependent on neighbor enforcement when a problem arises. None of the chicken-keepers wanted more involvement from the city with their personal flock, but several expressed concerns about coops they had seen that needed better protection from the elements. For Melissa, "the health of the animal would come first in my mind" for criteria. When putting together a tour of coops (like those done in Portland, Seattle, and Austin) "there were a couple of coops we looked at that were really unhealthy, the chickens didn't have enough protection, they didn't have access to water at all times."

When I initially began my research, I thought that chicken-keeping would be a community effort and I would uncover a network of resources and connections. Melissa is well-connected through her non-profit work, and suggested that "it would be valuable for the city to possibly send out information for that fifteen dollars you spend." [was she the only one who felt this way?] Instead, the research participants were independent enough to want to problem solve on their own, without intervention. Nearly everyone had predator-related problems and that is one area where it seems like people could use assistance. It is in the city's best interest to prevent urban wildlife interactions, so perhaps an inspection of coops to ensure that they are predator proof would be helpful, or the city could provide resources on how to better protect their flock, particularly from raccoons.

People were excited about other types of microlivestock in the city, including other poultry, rabbits, pigs, and goats. In addition to chickens, participants had kept other types of poultry in Missoula, including geese, turkeys, and ducks. There was some concern about the regulation of the larger animals, and that was a point where interviewees felt that the role of the city should be increased and additional regulation was needed. Nearly everyone liked the idea of bee-keeping, which is regulated by the state, and will not be discussed here.

Permit System

The permit system was devised to cover costs incurred to the city for chicken-keeping, to ensure compliance with the rules of the ordinance, protect neighbors from nuisances and to keep track of urban flocks in the event of a public health problem. Melissa agreed with this, “I think it’s wise to keep track of the health of the animals . . . as well as the populace.” The idea of a permit is still relevant, although it is difficult to enforce and it does not have full participation of urban chicken-keepers. The majority of the chicken-keepers I spoke to held permits at one time, and half of them expressed positive sentiments about the system.

It turns out the permit system is difficult and expensive to enforce, which has made it an optional system. Seven of the chicken-keepers felt that the permit fee was “very reasonably priced as far as I’m concerned”, like Harriet, and they were happy to contribute toward something that went – somewhat ambiguously – to the greater good of the community. I did draw the majority of my participants from the city’s record book of permits, which increased the likelihood that they would be supportive of the permit

system. It is important, though, that the list I drew from included everyone who has ever taken out a permit, but they were not necessarily current permit-holders.

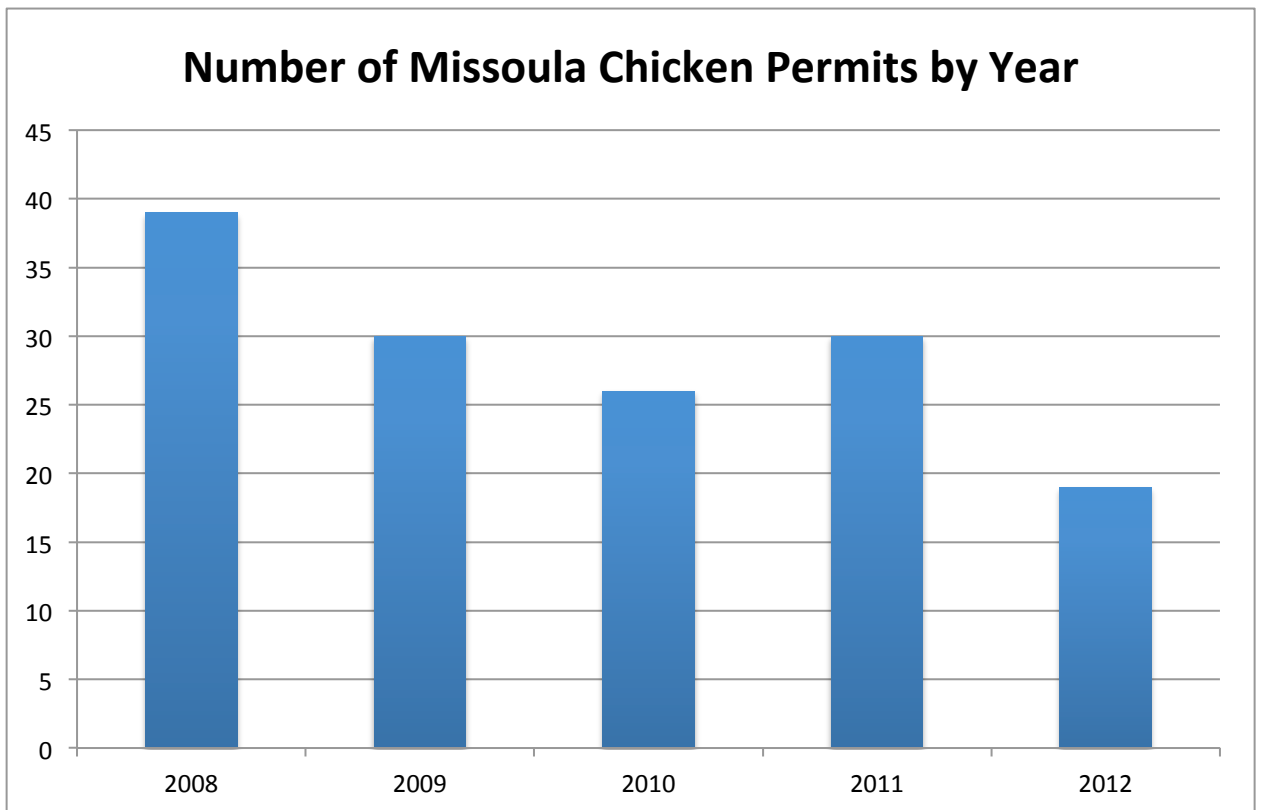
For example, three of the households said they initially got permits because they did not want to take away anyone else's opportunity for chicken-keeping. Mary and her husband "were super excited when they passed [the ordinance] and wanted . . . to not really jeopardize the chickens for anyone else. But now we've loosened up a bit." Once they realized that no one was knocking on their door to check on the permit, and that the neighbors were fine with having chickens around, they tended to loosen up. I also spoke to several chicken-keepers not on the permit list, who never obtained a permit because they were unaware of the ordinance, did not want to be tracked by the city government, or felt it was too expensive, along the lines of a tax. Although Margaret's household had originally gotten a permit to appease their skeptical neighbors, she was one of the most outspoken interviewees against the permit, saying "we're having to pay money to get food, like paying a tax on food acquisition."

The permit system has incurred an actual tax for people who have kept up their registration. Two permit-keepers received paperwork from the state of Montana, asking for taxes on their livestock. For chickens, the tax is five cents per bird, but the state requires a minimum payment of five dollars. B. went ahead and paid his tax, while Melissa put up more of a fight with the revenue office, telling them "I'm not sending this back for two stupid chickens, this is ridiculous" (at the time, Melissa only had two chickens because the neighbor's dog had eaten her other chickens).

Keeping track of urban chickens does have merit. If a registration system of any kind is to be effective, then people need a reason to participate. Some chicken-keepers

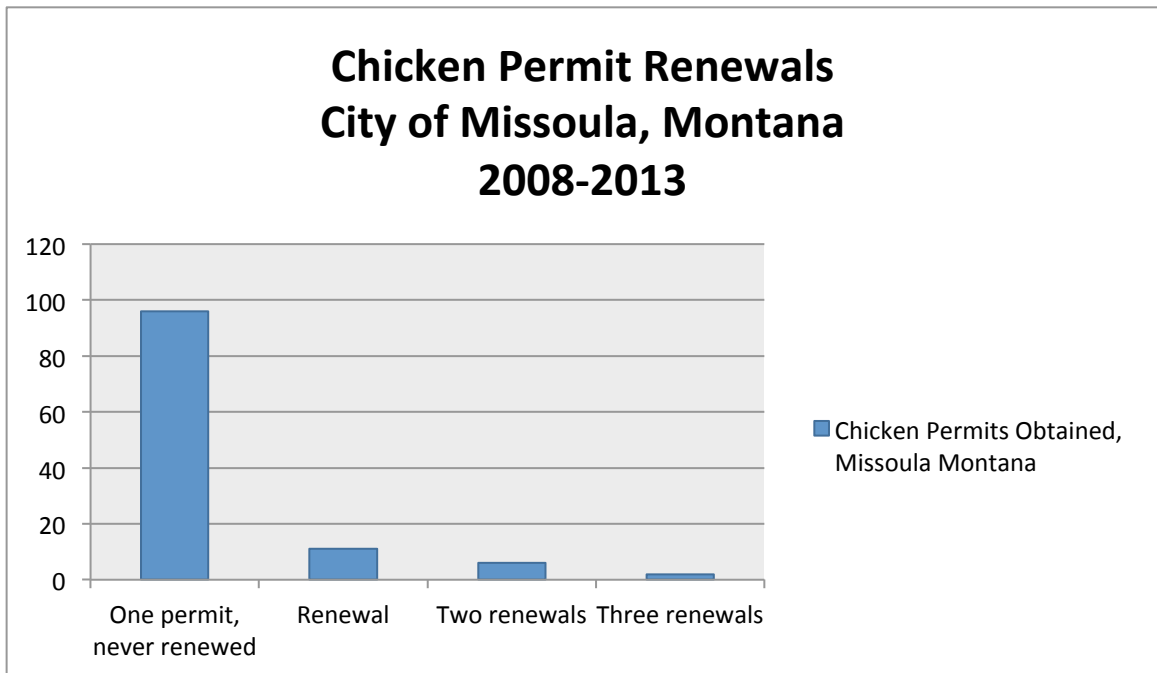
were around when the ordinance was implemented, so they felt compelled to follow the rules, or to recognize the efforts of the people who put the ordinance together. Several permit-holders said they did it as a precaution, either because of potential neighbor problems, or that they did not want to get in trouble. Although Chelsea had yet to get a permit for her three-week-old chicks, she valued the process as a civic duty, as important as registering to vote.

Figure 1: Missoula Chicken Permits by Year



After talking to the chicken-keepers about permits, I returned to Animal Control to evaluate how many permits were being obtained each year. The first figure shows how many permits were taken out during each calendar year of the ordinance. The first year, 2008, had the highest number of permits, as Missoula residents were motivated to get permits in the year following the passage of the ordinance. The following years did not generate as many permits, although the actual number fluctuated from year to year. I suspect there will not be many permits taken out or renewed for 2013. Data for these graphs was gathered in early March 2013 and therefore complete information for 2013 does not exist.

Figure 2: Chicken Permit Renewals



Of the 115 permits issued since the inception, the overwhelming majority – 96 – were first-time permits, with 11 being renewals, 6 third-year renewals, and 2 being fourth-year renewals. As chicken-keepers discussed, many were getting an initial permit and, once they discovered that it was largely self-regulated, were much less likely to continue to renew their permit.

Rural and urban

In the public hearing, some opponents framed chicken-keeping as an activity that should be confined to the country. To discuss this issue, I quoted one of the city councilman, who described his wife’s comment on the situation, which was “if people want to raise chickens, they should move to the country” and asked how they would respond to that comment. The chicken-keepers did not consider keeping a small flock of backyard chickens to be a strictly rural activity. Of the twenty households, only Keith and Catrina aimed to purchase land someday outside the city (their current chicken-keeping endeavor was a precursor to that lifestyle). No one aspired to be a farmer, which was something I thought might occur within the group. The rest of the chicken-keepers were committed urban residents, and were only looking for ways to improve their quality of life – particularly in the area of sustainability.

Nearly all of the chicken-keepers were originally from urban areas, like Krysty, who grew up in Detroit and Atlanta. It wasn’t until the chicken ordinance debate began in Missoula that she realized microlivestock could be part of the urban environment, “it was a paradigm shift to be able to think oh wow, we could actually have chickens in our yard.”

Three chicken-keepers remarked on the difficulty urban residents have connecting to the natural world, even in Missoula, and that chickens help remedy that. Margaret said “cities in general have a hard time with connecting to the natural world . . . [it’s] a nice way to reconnect ourselves to nature.” Chickens can serve as an environmental education tool, more so than domestic pets, and there’s still some wildness to them, which Chelsea mentioned, as an amateur naturalist.

Chickens also help connect urban residents to the natural world because they’re forced to be more in touch with the season, as Melissa pointed out. Most chicken-keeping set-ups involved having to let them out each morning and back in again at night. The task of going outside and taking care of an outdoor animal meant that chicken-keepers were made more aware of the seasons, both in their chores, and having to be cognizant of the chickens needs – a heat lamp in winter, at least two chickens to keep each other warm, maybe heritage breeds.

Participants discussed misconceptions about animals in the city, along with the importance of working together in an urban community. Catrina responded “I think it’s one of those things that people kind of have ideas about that maybe aren’t accurate, like this animal is really smelly or dirty . . . it’s cool to integrate more animals, to have them closer and in town.”

Several people talked about the urban-rural divide in terms of sustainability, but more specifically about climate change and how we cannot afford to think in such divisions. The urgency of the environmental crisis is forcing us to break those dichotomies and figure out ways to incorporate food into the urban landscape because the way we’ve been doing things is no longer working.

People expressed concern about the rural-urban schism because, in banishing people who wanted to engage in small-scale, homesteading-type activities to the country, several other issues are created. First, living outside the city limits requires much more driving, whereas in Missoula, you can choose to not drive at all (and rely on cycling, walking, and the bus) or drive minimally . Second, increased pressures on living in rural areas puts pressure on farmland preservation. Carving up large tracts of agricultural land into small five-acre parcels is not a sustainable activity and three people brought up the example of Target Range in a disparaging manner during our interviews, saying they did not want all of Montana to become like that.

Finally, engaging in public dialogue signals an ability to work things out in a community . Margaret was appalled by the city councilman’s wife’s comment because “she’s saying if you don’t like it here, then you can leave and it doesn’t seem like a place that is going to work together collaborate for the greater good.” From her experience growing up amid such divides, Luella said that “people have fear and concern over it when they just don’t have experience.”

Harriet felt that chicken-keeping allowed for “different ways of being, in our urban-rural interface, you know maybe there doesn’t need to be as much of a cultural distinction, and maybe it’s healthy because a lot of people who live a long time in urban areas can feel very isolated from nature or not really have that connection to where their food comes from and I would say it’s good for the general health and well-being of people, I mean not every household needs to keep chickens, but maybe just for that presence to be in an urban area to create more awareness and more of just like small, anecdotal daily connections and um, to those food systems people don’t necessarily have

much exposure to in, um, urban areas, so I think that there's the role to be played to just of kind of ground us" and "it's smart and necessary for people to start reintegrating food systems into the urban areas."

Small flocks of urban chickens could actually become a way of defining the city. They definitely add a certain character to Missoula, as Holly noted, "chickens mix that [rural and urban] up a bit and I think Missoula mixes it up a bit quite often." Luella's Midwestern hometown was very segregated between farmers and non-farmers, but now, she says "I personally get a lot of joy when I'm driving around town and I see the diversity in Missoula." For Melissa and her husband, who relocated around the time the ordinance was established, "the sustainable aspect of Missoula . . . was a big reason we moved here."

Food system

Krysty definitely felt that her chickens were part of the larger picture. She was involved with one of the non-profits that worked to pass the ordinance and got chickens to demonstrate support for their efforts. Backyard chickens "fit into our food philosophy" which was "trying to eat healthier, trying to eat more local, more fresh." A self-described "foodie," Krysty saw chicken-keeping as a complementary activity to canning, gleaning, gardening, and the non-profit food system work she did while in grad school.

Chickens should be allowed in the city because they provide a fresh source of protein, which is otherwise difficult to obtain through gardening. They allow urban residents an option to incorporate sustainability into their lives and to try something new and hands-on without having to completely change their lifestyle, like relocating to the city. As a result, it gives urban residents self-efficacy and opportunities for secession and

sucession. Albeit small, it can be a catalyst for other positive actions, such as housemates sharing meals, Margaret's case, "it definitely encouraged more meals together." Many interviewees offered evidence that supported these positive changes: neighbors interacting because of chickens, teaching children (both their own and their neighbors' about where food comes from) and growing a garden to increase access to fresh produce for salads.

When enveloped in the conventional food system, Harriet felt that she had to "riding that middle line, [where there are] always compromises" buying eggs at the grocery store. Before raising chickens, she was constantly trying to get the best value for money while also finding something that fit within her ethical system. Keeping chickens ameliorates this situation to a degree. For the twenty households I interviewed, they chose to take a step away from the market economy with chicken eggs. They shared their excess eggs with friends, neighbors, and family, thereby drawing more people into the foodshed. They rarely, if ever, purchased eggs through the grocery store, slowly replacing Costco, Albertsons, and the Good Food Store with their backyard provenance. The opportunity to raise their own chicken eggs has opened up other opportunities, like growing a garden. The chicken-keepers are able to incrementally shift more food decisions in a direction they agree with ethically.

Three interviewees explicitly stated that keeping chickens provided food security in the form of eggs. Laurie illustrated this by describing up a program in France and Belgium where the local government gave away laying hens to residents, provided they did not eat the chickens themselves. Laurie's example describes the potential of urban chickens, as well as reinforcing their importance.

Keeping chickens allowed interviewees to investigate their food sourcing on even deeper levels. There were also concerns about sourcing, both Laurie and Catrina had concerns about how Quality Supply (now Murdoch's) sourced and shipped chicks, "they did seem more to pneumonia, so they wound up getting different types of infections" because of the mishandling that occurred when they were shipped to the store. Luella was "a little unsure" about the four chickens she got at Murdoch's, "I really like to know where my food comes from and I just really couldn't gather much information about them."

Even though the subject matter of the interviewees involved a vegetarian source of protein, several stories of eating meat emerged, as chicken-keepers struggled with what to do with roosters. Margaret's household decided to utilize their rooster for food and described the difficult process. She was grateful for it, overall, as "killing your own meat that you're going to eat gives you a better understanding of meat" and "when you go through the butchering process, it's like, wow, this a chicken we've cared for and developed a relationship with, like it's more than two bucks down at KFC, it's a living creature."

I think there is the potential for much more growth in urban landscapes in this area – more people looking into caring about where their food comes from, and also more people feeling like they have control over their diet and control over one tiny piece of the food system – a vote for the local, sustainable, and independent.

CHAPTER FIVE

Conclusion: Chicken Soup

It was a rare, sunny November morning. Heather and I stood outside in the yard over a folding table with two warm, freshly-plucked chicken carcasses. Heather showed me the steps to breaking down a chicken and I copied her deft slices and precise handiwork.

We discussed the findings of my research and Heather's role in Missoula's urban chicken scene. Heather is passionate about reviving heritage breeds of farm animals and as a result, her small farm in the Orchard Homes area on the outskirts of town harbors heritage pigs and a multitude of chickens. Heritage breed preservation has the seemingly contradictory mission of encouraging people to eat endangered breeds in order to increase both consumer demand and the number of farmers raising them. Heather started out with a flock of urban chickens in town and now raises chickens for urban flocks in Missoula.

Heather's homestead is located on a patchwork of county and city land. She has a classic red barn on her property, a slough running along the back edge, and a stand of

beautiful aspen trees. The scene was idyllic, yet it was one that only a handful of my interviewees aspired to participate in directly. As co-producers, they enjoyed supporting the efforts of farmers, while gaining a small amount of first-hand experience.

Heather's husband slaughtered roosters behind us, utilizing the killing cone and a sharp knife; a pot of hot water sat on a propane burner and sent swirls of steam into the morning air. It provided a nice spot to warm ourselves because, despite the sun, it was awfully chilly. Heather and I worked barehanded, acquiring nicks and cuts from the chicken bones and newly-sharpened knives.

Heather raises heritage birds that are dual-purpose, both good layers and good meat birds. They are also cold hardy. These birds have a combination of characteristics that are desirable for chicken-keepers in town, who are looking for dependable layers that can thrive during the winter. In addition to understanding what Missoula chicken-keepers are looking for in their birds, Heather also understands the challenges they encounter. Even though organic, Montana-grown feed is readily available, its expense can make backyard chickens cost-prohibitive. The persistence of predators can be so intense in some parts of town that aspiring chicken-keepers are forced to give up, due to the psychological and financial cost of frequently losing birds.

Heather is an important resource for the chicken-keepers in Missoula. I highlight her experience here to demonstrate a farmer in the foodshed who is supported by the rise of chicken-keepers in Missoula. She, in turn, provides advice and support to chicken-keepers, and connects them to the larger foodshed, if her customers want to purchase local feed. She can also sell them one of her meat birds, part of a heritage pig, or provide first-hand recommendations on other types of food co-producers may be seeking out in

the foodshed. It is a truly reciprocal relationship and one that is essential in order for sitopia to thrive.

Heather is also an example of someone who has shortened the distance of her food, both literally and figuratively. In general, participants in the America food system are set extremely far apart from the production of the food that appears on their plates. The conventional food system creates both economic and social distancing, and small actions such as chicken-keeping are steps toward changing that. Heather has shortened the physical distance of her food in feet, and she sees her animals from the time they are born through to the cutting block. She knows them intimately, as well as their significance as heritage breeds and the political implications of her work. It is not necessary that all my interviewees go to this extent in their microlivestock husbandry, but beginning to explore the question of distancing – in this case through an urban chicken flock – allows chicken-keepers to begin making more informed choices about the food they put in their bodies, and the larger issues at stake in the food system.

* * *

This paper focused on building the sustainable food movement from the individual level, where even a small backyard garden becomes “a small piece of liberated territory in the struggle for a just and sustainable society” (Henderson 2000:187). This speaks to all the aspects that in arose in the interviews. Liberated territory meat that parents could feed and educate their children about good food, people with dietary restrictions could raise food for themselves that was clean and in line with their personal code of ethics, and urban residents with small yard and limited options for food

acquisition could make a small choice about how and where they obtained their chicken eggs.

Despite the increase in interest in food systems and urban agriculture, and scholarly work on aspects such as farmer's markets and community gardens, very little research has been conducted on the phenomenon of urban microlivestock and the resulting benefits. In this research project, I sought to provide context for why urban residents might participate in urban chicken-keeping through the analysis of in-depth interviews and a case study of Missoula's chicken ordinance. The findings suggest that allowing city residents to keep chickens provides meaningful engagement with the alternative food system and empowerment around personal food choices.

The city of Missoula established a chicken ordinance in 2007, in response to an incident where a couple violated the then-ordinance, which did not allow livestock within the city limits. The ensuing debate, both on the public record and through the media, made a plethora of claims on the issue. Through the interviews, I aimed to uncover whether, five years later, chicken-keeping had been as positive – or negative – as it was purported to be.

Chickens are an important aspect of the household economy in Missoula. They do not necessarily provide a direct economic benefit, as is often assumed in the literature promoting microlivestock, and as was argued by at least one commenter in the city council's public hearing on the ordinance. The households in Missoula named a multitude of non-monetary benefits their chicken flocks provided, which enhanced the health and nutrition of their families, provided a medium of exchange with their

neighbors, educated and entertained, and spurred thought around the larger issues within the food system.

The primary benefit to keeping chickens in Missoula is access to fresh, local chicken eggs. Chicken-keepers can also choose whether to take extra steps to improve upon the nutritional quality of the eggs by adding flax, sourcing organic feed, or allowing their chickens to graze free-range and provide agroecological services. These types of eggs are characterized as “good eggs” here, where chickens are living in a way where they are able to act out their natural instincts and are treated humanely. These eggs are the impetus for chicken-keeping in Missoula and what continue to motivate chicken-keepers, despite challenges of neighbors, predators, and financial costs. The chicken-keepers I spoke with felt their backyard chicken eggs were incomparable to any store-bought chicken eggs, even in comparison to the local, organic ones available.

Beyond the eggs themselves, chicken-keepers found being able to control what went into their food to be important, primarily for health reasons, but also because of the political and ethical implications.

Chickens bring enjoyment, entertainment, and humor to households, and provide a connection to both the natural world and the opportunity to connect with others through their chicken flock through the exchange of excess eggs. Interviewees attributed happiness and joy to their chickens and were visibly moved to laughter or tears by them.

Chickens serve as an educational tool for teaching children about where their food comes from and complementary activities, like how to cook and eat eggs, and about the responsibility of taking care of animals.

Predators are the main challenge for chicken-keepers in Missoula. Both wild and domestic predators threaten flocks and nearly all my interviewees had first-hand negative encounters with chicken injury or death. Working with neighbors who have dogs is helpful as a preemptive measure, as is constructing a strong, secure coop, and being vigilant about closing it at night.

Getting rid of roosters was a challenge for chicken-keepers (although trying to manage roosters in the city would be an infinitely larger challenge). While no one disagreed with the prohibition of the ordinance, it was challenging to figure out what to do with roosters and whether it meant rehoming, giving them away, or, one case, butchering. Neighbor interactions were also a challenge. Of those who had negative encounters, most had a history of problems before chickens arrived on the scene. There were also conflicts due to mismanagement of nuisances and differing ideas about what was appropriate for the city.

For all of the chicken-keepers I spoke with, the benefits outweighed the challenges they encountered. People want the opportunity to have agency over their lives. This is especially evident in the city. City government should be open to allowing residents meaningful opportunities through good policy. In Missoula, it makes sense to allow residents to keep a small flock of chickens that allows them to provide food for themselves, without inflicting nuisances on those around them.

A tangible opportunity like this is incredibly rewarding for participants. In an interview with *Lucky Peach* magazine, Michael Pollan contrasts the nature of our daily twenty-first century work with technology and screens with what we're missing out on:

we have a real hunger to recover the use of our hands and our senses . . . [w]hen we cook, when we garden, when we make things with our hands, we're engaging

all of our senses and that has – in ways we don't really know how to quantify – deeply positive effects on our mental and physical health (Meehan 2013).

The opportunities that occur through succession and being a co-producer involve reclaiming these activities that require the use of our hands. Participants in sitopia have the opportunities to cook and to garden. Harriet said something similar during our conversation, “that it makes for the psychological benefits and for the fresh food – it’s better for our health and better for our hearts.” I would also add that even for chicken-keepers like Ronald, for who growing food was not a primary motivation for keeping chickens, drew a great deal of enjoyment from utilizing his wood-working skills to provide a secure, comfortable, functional coop for his chicken flock.

It is imperative for cities to allow such opportunities, through working with local government, public health, and food policy councils. The City of Missoula has developed a policy that significantly benefits its residents, without adversely affecting those who choose not take part. The discussion around chickens should not end with the implementation of the ordinance, however. Five years later, it is important for Missoula to reevaluate and revise the ordinance, specifically the permit system, which is expensive and underutilized. The current permit system operates unfairly, with a minority of chicken-keepers paying their annual dues. Those who are following the stipulations of the ordinance are essentially being penalized with a fee (which, for some, was a significant cost, along with the feed and housing for their chicken flock), while those who choose not to register their chickens do not suffer any consequences. There are many different options the city government could elect in lieu of the annual permit. If they wanted to continue to keep record of chicken flocks, one-time permit or small registration fee could

serve to keep track of chickens in Missoula, without causing Animal Control a significant amount of work. They could also model it on the city dog license, which only needs to be renewed once every three years. An improved system that allows the city to gain a better understanding of where chickens are being kept in Missoula while minimizing paperwork – for both Animal Control and for the chicken-keepers – would be ideal.

Raising microlivestock is an exciting new development within the area of urban agriculture. In Missoula, chickens have certainly helped to build community within neighborhoods, provide access to healthy, fresh food, and provide residents with self-efficacy. Cities, such as Missoula, should continue to evaluate their policies regarding microlivestock to ensure it is continuing to serve their residents well. In the process, they may also discover that, in some areas, the policy is bringing unexpected benefits to the urban environment.

Appendix A

Missoula Chicken Ordinance

6.07.1010 Regulations concerning keeping of livestock and domestic fowl.

D. Special regulations for urban chickens on a parcel of land that is less than one acre in size. The prohibition to keeping chickens in this section does not apply to the keeping of up to six (6) female chickens while the animals are kept in such a manner that the following standards are complied with:

1. The chickens must be kept on a single-family parcel(s), and chickens may be kept on a parcel(s) under one ownership with more than one dwelling if all residents and the owner consent in writing to allowing the chickens on the property. When chickens are kept on a multi-dwelling parcel(s) the owner of the chickens shall keep a copy of the signed approval document for inspection upon request by animal control personnel.
2. The owner must obtain an annual permit from the City Treasurer. The permit shall be \$15.
3. The chickens shall be provided with a covered, predator-proof chicken house that is thoroughly ventilated, of sufficient size to admit free movement of the chickens, designed to be easily accessed, cleaned and maintained by the owners and be at least 2 square feet per chicken in size. The size requirements for the enclosure outlined in [6.07.1010 \(A\) \(1\)](#) do not apply. An enclosure may smaller than one half acre in size
4. No chicken house shall be located closer than 20 feet to any residential structure occupied by someone other than the chicken owner, custodian, or keeper.
5. The chickens shall be shut into the chicken house at night, from sunset to sunrise.
6. During daylight hours the adult chickens shall have access to the chicken house and, weather permitting, shall have access to an outdoor enclosure on the subject property, adequately fenced to contain the chickens and to prevent access to the chickens by dogs and other predators.
7. Stored feed must be kept in a rodent- and predator-proof container
8. It is unlawful for the owner, custodian, or keeper of any chicken to allow the animal(s) to be a nuisance to any neighbors, including but not limited to: noxious odors from the animals or their enclosure; and noise of a loud and persistent and habitual nature. Animal Control will determine whether or not a nuisance exists on a case-by-case basis.

Appendix B

Interview Guide for Chicken-Keepers in Missoula

Introduction

Thanks for talking with me today. I'm doing these interviews as a part of a research project on urban agriculture. In particular, I am looking at why people in Missoula keep farm animals in their backyards. I am interested in your experience and what motivated you to keep animals.

Before we begin, I want to assure you that your identity as a participant in my research will remain confidential. I will not use your name in my final paper or in any presentations.

Do you have any questions or concerns?

If it is ok with you, I'd like to record our conversation. This will allow me to focus on what is said, and ensures that your answers are accurately recorded. Is it all right with you if I turn the recorder on?

[Note: In the guide, I use the general term "animals;" I will replace it with the specific type (or types) of microlivestock the interviewee is keeping. If they have more than one, I will ask separate questions for each type.]

Participant's History

1) First, I am interested in the animals you keep. I am looking specifically at small livestock that were traditionally kept on farms, such as chickens. What types of those animals do you currently own?

Follow-up: How many do you have of each?

2) When did you get your animals? Where did you get your animals?

3) Why did you begin keeping animals?

4) What are the benefits to keeping animals?

Probe: Are there any other benefits to keeping animals?

Probe #2: Before you got (type of animal), how did you get (benefit)?

Does (benefit) save you money? (financial benefits?)

5) Have you personally encountered any challenges to keeping animals?

Interactions with Neighbors/Tensions

6) Please tell me a little about your neighbors' reactions to your having animals.

Probe: Why do you think they may have responded that way?

Knowledge generation and sharing

7) Did you have any experience keeping animals before this? (i.e. growing up, experience on a farm, keeping animals in another city)

Where do you get information about how to take care of your animals?
[e.g. books, internet sites, community in Missoula]

Probe: Are there specific people or resources in Missoula that you go to if you have a question about your animals?

City policy and decision making

8) Are you aware of the Missoula city ordinances that regulate animals?

(If interview has chickens) Do you have a permit for your chickens? Why or why not?

9) What do you think the role of the city should be in regulating small livestock?

10) Chickens are currently the only type of small livestock allowed in Missoula. Do you think there are other types of animals that should be allowed?

11) In the hearing for the chicken ordinance, a city councilman brought up a conversation with his wife, who said that if "people want to raise chickens, they should move to the country." How would you respond to a comment like that?

12) What should the criteria be for allowing animals in Missoula?

13) The Missoula City Council has discussed two changes to their ordinances regarding animals. The first would officially permit and allow bees. The second would allow goats. What are your thoughts on these?

Bigger picture

14) Has keeping animals changed your eating habits?

15) As you may be aware, many cities across the US are making these kinds of changes to allow certain livestock to be kept in the city. I'm wondering what you think about these changes in light of the larger food system.

16) Are there other animals you'd like to keep?

Before we conclude, do you have any other thoughts you'd like to share?

Conclusion

Thank you. I really appreciate you taking the time to talk about your animals. If I have any additional questions, can I contact you?

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