
Journal of Public and Nonprofit Affairs

Vol. 6, No. 2

The Potential for Coproducing Food Security in Public Housing Communities

Joanna Lucio — Arizona State University

Meg Bruening — Arizona State University

Laura C. Hand — University of North Dakota

The coproduction literature has long acknowledged that citizens are active consumers and producers of public goods. Coproduction tends to be successful when citizens are already engaging in activities that can be enhanced through collaboration with activities of public managers, programs, and agencies. In this article, we investigate the strategies and activities public housing residents engage in to produce consistent access to sufficient nutritious food needed to support a healthy life. That is, we investigate residents' food security. Focus group responses from adults and adolescents in six public housing communities in the Phoenix metropolitan area reveal barriers and opportunities for leveraging communities to attenuate place-based disadvantages associated with low food security. These responses also demonstrate a potential missed opportunity to engage in place-based solutions that use principles of coproduction to produce and maintain residents' food security.

Keywords: Food Security, Public Housing, Coproduction

Introduction

Decades of research on neighborhoods has concluded that low income neighborhoods are detrimental to residents' lives when considering a number of quality of life dimensions (Dreir, Mollenkopf, & Swanstrom, 2004; Ellen & Turner, 1997). At the same time, social capital and a general sense of community in low income communities is thought to mediate some of the negative outcomes associated with living in these neighborhoods (Greenbaum, Hathaway, Rodriguez, Spalding, & Ward, 2008). This suggests, then, that low income communities contain both barriers and opportunities for residents; and, this leads to a situation ripe for coproduction—that is, a situation where both citizens and government contribute to producing a public good or service (Bovaird & Loeffler, 2012; Pestoff, 2012).

The central premise of coproduction is that citizens are not simply consumers of public services, but often they provide resources and time in the development and delivery of services (Alford, 1998). In this article we investigate the barriers residents in public housing communities face in producing their own food security; and, we also examine opportunities for coproduction that reduce or remove some of these impediments.

Relatively little is known about how residents living in public housing contribute to their own food security each month. Nor is much known about the strategies that these individuals use in order to get by every day. Although use of informal networks, where residents help one another, has been explored in general (e.g., Greenbaum et al., 2008), little research has focused on the extent to which these types of networks supplement or replace formal public social services.

In recent years, in the United States (US), there have been extensive cuts to federal assistance programs, such as the Supplemental Nutrition Assistance Program (SNAP). As a result, local governments have struggled to provide public services to their residents. Coproduction, however, may help to enfranchise residents who rely on federal assistance (see Jakobsen, 2012); and, public housing communities likely provide an ideal context for studying this issue.

Public housing developments are a public service that lend themselves to community level coproduction. These developments are communities of shared space that often provide case managers, classes, and other resources for residents. In turn, residents are expected to play an active role in their communities. In theory, these developments have many of the necessary conditions needed for coproductive activities. Whether these activities actually occur, however, is an issue that has been underexplored.

It is important to note that public housing has been consistently dismantled around the country. This has led some scholars to question the benefits of this type of housing (see Goetz, 2003). Still, one potential benefit that has not been explored is the potential for the facilitation of food security in public housing through coproduction.

The purpose of this study, then, is to explore the extent to which residents living in public housing developments produce, and potentially coproduce, food security. Specifically, we focus on families with adolescents in Phoenix, Arizona. We examine the resources and time that these families invest in protecting themselves, their children, and their community against the detrimental effects of living in areas with low food security. The research questions are: 1) What strategies do residents use to produce their own food security? 2) To what extent does place-based coproduction play a role in the strategies that families with adolescents utilize (or suggest utilizing) to increase their food security? And, 3) What are the barriers and possibilities for producing and coproducing food security in the public housing context.

The study of coproduction within a confined community of disadvantaged residents provides a more in-depth look at mechanisms of coproduction that might be more difficult to capture at aggregate scales. It should be noted that this study was inductive. That is, the first general question focused on the production of food security among public housing residents living in housing developments. The results led to the incorporation of coproduction and we explored how coproduction might enhance food production for public housing residents in this setting. The results indicate that residents tend to engage in behaviors that research suggests improves the success of coproduction and outcomes related to food security. These findings have the potential to shed light on the day-to-day contributions that residents make within their own communities and the extent to which they make up for a dearth of formal services. By understanding how coproduction is (or could be) involved in these processes, other communities may be able to use this information to support families in need.

Food Security in Impoverished Neighborhoods

Disparities exist across cities with regard to access to nutritious and healthy food. These disparities are in part to blame for the disproportionate poor health outcomes in low income neighborhoods. Some studies, however, indicate a more complicated relationship between

place and socioeconomic factors. These complications, of course, warrant further research (Larson, Story, & Nelson, 2009).

Most scholars agree that finding a way to increase access to healthy foods should be a top priority (Rose & Richards, 2004). According to a recent United States Department of Agriculture (USDA) report, in 2016, 12.3% of Americans were food insecure and 4.9% had very low food security. It should perhaps be no surprise, then, that food insecurity has increasingly gained focus and attention in recent decades as a measure associated with neighborhood health. Food security or insecurity has replaced the more politically charged notion of “hunger” and incorporates more than merely alleviating hunger.

According to the Committee on World Food Security (2012), “Food security exists when all people, at all times, have physical, social and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (p. 5). Campbell (1991) has suggested that,

It is clear from this definition that the concept of food security is not about mere survival. Rather, it is attuned to health needs, takes individual preferences into account, and incorporates multiple elements of access, including “the assured ability to acquire personally acceptable foods in a socially acceptable way. (408)

Food insecurity has been linked to detrimental health and social outcomes (Olson, 1999), such as type II diabetes (Seligman, Bindman, Vittinghoff, Kanaya, & Kushel, 2007; Seligman, Davis, Schillinger, & Wolf, 2010) and higher stress levels (Fiese, Koester, & Waxman, 2014). Research has also shown that female-headed households, racial minorities, and low income residents are all at greatest risk of food insecurity and associated diseases (Franklin et al., 2012). Although there is some evidence indicating that these populations are more likely to live in public and/or subsidized housing, the extent to which public housing communities can help, or hinder, food security is not well known.

Public Housing Communities

For over 70 years the US government has provided housing assistance in the form of developments. This public housing stock serves as a subsidy that can help reduce food security by freeing up resources that can go toward other needs such as nutrition (Gubits et al., 2016; Waxman, 2017). Over the past several decades public housing has been dismantled across the US in part due to high maintenance costs, poor management, poor outcomes for residents, lack of neighborhood resources (e.g., supermarkets), and an association that these housing developments have with high crime and disadvantage (Cisneros, 2009; Vale, 2002).

Despite these negative aspects associated with public housing, there are also positives aspects. Indeed, some developments engender rich social networks and ties that make up a community of support needed to get through the everyday hardships associated with poverty (Clampet-Lundquist, 2010). These social networks, described as the web of social relations connecting individuals (Smith & Christakis, 2008), may have an important impact on health outcomes (Briggs, 1998; Greenbaum et al., 2008; Keene & Ruel, 2013; Venkatesh, 2000).

Neighborhood studies indicate that social capital can serve as a mediator in impoverished neighborhoods (Aldrich & Meyer, 2014; Putnam, 2000). Derosé and Varda (2009) posit that social capital and the way it contributes to health outcomes are vital to research. For instance, in the US, Hispanic individuals are overrepresented in terms of certain health conditions. However, their strong social and cultural ties might help buffer some of the risks associated

with negative health outcomes, such as isolation and lack of support. This strong social support could help explain part of the “Hispanic Paradox,” which asserts that at times Hispanics have lower mortality rates than non-Hispanics, after controlling for low socioeconomic status (SES) (Finch & Vega, 2003; Franzini, Ribble, & Keddie, 2001; Markides & Coreil, 1986).

Hispanic households, however, are over-represented among the food insecure, with approximately 26% of Hispanic households labeled as food insecure compared to only 11% of white, non-Hispanic households (Coleman-Jensen, Nord, Andrews, & Carlson, 2012). Mexican immigrants, in particular, tend to have higher levels of food insecurity (Sharkey, Dean, & Johnson, 2011). In Phoenix, Arizona where many Hispanic residents have recently emigrated from other countries, this relationship is especially concerning. Thus, although public housing developments might appear to, in theory, provide a buffer against food insecurity, their location and the ability that residents have to access food in these developments could be difficult barriers to overcome.

Food Access: Barriers to Food Security

Research on food access has typically been neighborhood based, focusing on multiple dimensions of access to capture its complicated nature. These dimensions include proximity to stores, types of stores, variety of food available within stores, and the affordability of food. These dimensions are linked to specific health outcomes such as obesity and dietary intake (Rose, Bodor, Hutchinson, & Swalm, 2010). Rose and colleagues (2010) point out that there is often a lack of price consideration with regard to food access. That is, residents who are able physically get to a store that has fresh fruits and vegetables might be discouraged or unable to purchase these items due to their high cost (Cohen & Garrett, 2010). Indeed, research has shown that low income individuals from under-represented racial backgrounds tend to consume fewer fruits and vegetables than recommended. This is problematic due to the association of this type of diet with increased risk for diseases such as diabetes, cardiovascular disease, and cancer (Hendrickson, Smith, & Eikenberry, 2006).

Even when access to fruits and vegetables is not be a problem, if these foods are viewed as unaffordable compared to less healthy and more filling food options families may choose not to purchase them (Bruening, MacLehose, Loth, Story, & Neumark-Sztainer, 2012; Koh & Caples, 1979). Many families make food purchasing decisions based on what can last longest and some may even choose to purchase food that lasts well beyond date of quality. Fresh foods are also, at times, more expensive and of lower quality in some low income neighborhoods (Hendrickson et al., 2006).

Coproduction: The Constructive Role of Citizens in Service Delivery

The concept of coproduction, most often credited to Elinor Ostrom (1978), considers the public’s role in public service provision. Coproduction has a particular focus on how recipients of public services contribute to the production of those services through individual and collaborative efforts. This view of service delivery recognizes that many public services cannot be oversimplified as commodities, which tend to end at the point of delivery. Rather, public services either require or benefit from contributions by the recipients of the service (Osborne, Radnor, & Nasi, 2013; Whitaker, 1980).

Although coproduction has been a concept of scholarly interest for nearly three decades, it does not have a universally agreed upon definition. Therefore, much of the recent work on the topic has focused on definition refinement and establishing conceptual boundaries (see, for instance, Brandsen & Honingh, 2016; Nabatchi, Sancino, & Sicilia, 2017). However, the

foundation of coproduction is the idea that recipients of public services are not simply consuming public goods, but often they actively contribute and collaborate “to achieve better outcomes or improved efficiency” (Bovaird & Loeffler, 2012, p. 1121).

This concern with the micro level processes of service delivery makes three primary assumptions: 1) recipients of public services are often not passive participants in the delivery of public services but actively participate in behaviors that enhance the production of the services in terms of quality, quantity, or desired outcomes (Bovaird & Loeffler, 2012; Needham, 2007), 2) many public services are difficult to produce or outcomes are impossible to achieve without contributions from the recipients of those services (Alford, 1998; Alford, 2009; Whitaker, 1980), and 3) incorporating relevant members of the public into service delivery will potentially lead to more efficient delivery of public services (Bovaird, Van Ryzin, Loeffler, & Parrado, 2015; Ostrom, Parks, Whitaker, & Percy, 1978; Parks et al., 1981).

For the purposes of this research, we focus on two concepts of coproduction found in the literature, individual and collective coproduction. Individual coproduction refers to behaviors and activities by individuals to help produce public services that tend to benefit only the individual involved in the activity (although there could be societal benefits in the aggregate). In these situations, the relevant public services “have as their primary objective the transformation of the consumer” (Whitaker 1980, p. 240). In other words, these types of services cannot achieve their objectives without some effort. Often this requires a change in behavior by the recipient. Thus, contributing to the production of that public service by producing desired outcomes (Bovaird & Loeffler, 2012). An example of individual coproduction is skills training for the unemployed. The desired outcome of employment cannot be achieved without actions taken by the individual to actively search for and keep a job using the skills learned in training (Alford, 1998).

Collective coproduction refers to efforts that incorporate some form of coordination of activities between individuals or groups and provides benefits to people beyond those that are actively participating in coproductive activities. A common example of collective coproduction is a neighborhood watch program. Activities by watchful neighbors enhance the safety of the entire neighborhood. Thus, these activities extend the reach and effectiveness of the traditional public service provision by police (Brudney & England, 1983). Collective coproduction harnesses the power of the group and “has potential to amplify the value added by the contributions of individuals” (Bovaird et al., 2015, p. 51). In addition, participating in collective coproduction is expected to promote and develop social capital for participants (Pestoff, 2012). Both forms of coproduction demonstrate the interdependent aspect of many public services, especially those intended to increase the welfare of vulnerable populations (Needham, 2007).

When it comes to actions related to food security, the connection to coproduction might appear tenuous, especially because the pursuit of survival is not considered optional. People must find enough food for their families regardless of their participation in related public services. Although recent work by Nabatchi et al. (2017) as well as by Brandsen and Honingh (2016) asserts that coerced or obligatory behaviors do not count as coproduction, Alford (2009) makes the assumption that “coproduction is essentially voluntary, but that it can form part of compliance, even where some compulsion is present” (p. 23). Survival, then, can be considered compulsory but achieving food security is not quite the same.

Food security is not simply a consistent rate of subsistence. It goes further by meeting nutritional and health needs for “an active and healthy life,” not just survival (Committee on World Food Security, 2012, p. 5). Thus, although activities necessary for survival would not be considered coproduction, the activities related to producing food security have the potential for individual and collective coproduction especially for those participating in public services such as SNAP and public housing.

In this study, then, we explore multiple views of coproduction as it relates to food security. First, we explore the role that residents play in producing food security beyond the implementation of a service (e.g., purchasing food with SNAP or following nutrition-related guidelines and advice provided by frontline service providers). We do so to better understand the barriers that may exist. Since all of the households in this study utilized SNAP, which provides supplemental nutrition benefits, they did not completely achieve food security by design. SNAP participants must engage in extra activities, whether by using other funds or finding alternate sources of food in order to complete their food security.

Second, we investigate the role of residents as individual coproducers of food security. To do so, we consider whether public agencies are able to develop formal community arrangements for food provision—i.e., what we refer to as collective coproduction.

Methods

This research was part of a larger project that examined the risk and protective factors around food insecurity among public housing families with adolescents. This study draws on data from focus groups with parents and their adolescent children. Participants were primarily from low income, racial minority families. They joined the study in pairs. That is, there was one adolescent (aged between 11–18 years) and a primary parent/caregiver.

In the spring and summer of 2014, residents of six public housing complexes received informational flyers in the mail about the study. Investigators also went door-to-door to recruit. Participation in this part of the project included separate focus groups with adults and adolescents. To participate, eligible participants were required to come to one of six community centers located at each housing facility. Participants provided consent (made available in Spanish).

There was a total of 11 focus groups conducted. This included five adult and six adolescent groups. On average, four participants attended the adult focus groups and six participants attended the adolescent focus groups.

Participants received community service hours and a \$10 gift card for their participation. The investigators facilitated the focus groups with the support of research assistants who took notes and managed the audio recordings. Focus group sessions lasted between 90 and 120 minutes.

The focus group questions for the parents and adolescents differed to some extent. We began the adult focus groups with an ice breaker. Specifically, we asked them about their favorite traditions involving food. We then asked a series of guiding questions pertaining to:

- where they received information and messages about food,
- what pressures they felt,
- how attainable certain foods were,
- what foods they wished they had access to,
- how problematic they perceived hunger in their community,
- where they went for help if they needed assistance,
- what ideas they had for their community with regard to reducing hunger,
- their thoughts about their community and their housing development in general,
- their experiences with community gardens and farmers markets,
- their hopes for their children, and
- the policies or programs that they would develop, if allowed, to make sure all families had enough food.

For the adolescent focus groups, although we began with an icebreaker (about their favorite foods) and we asked about the messages and pressures that they experienced concerning food, what foods they wished they had access to, and what programs and policies they would develop to fight hunger (similar to in the adult focus groups), we also asked adolescents about their level of involvement in food shopping and preparation, where they saw people go for assistance, and how lack of food affected kids that they knew.

The six locations for the focus groups were all in public housing developments near downtown Phoenix, Arizona. At all of the sites, residents had case managers and there was a community center that offered nutrition classes and opportunities and events for recreation. In terms of the surrounding community characteristics, all of the sites were located in relatively low income neighborhoods; and, while nuances across sites are certainly important, we grouped responses across sites since the number of participants at each site was relatively small. Still, any differences that emerged across sites were kept in mind during the interpretation of the data.

The focus groups were recorded, and research assistants transcribed the conversations verbatim. Following the focus groups, members of the research team compared field notes and debriefed on observations regarding the setting of each site, interactions with staff members, and the processes required to assess data quality and triangulate field notes and memos. The analysis of transcripts began with line-by-line coding. This coding was conducted by two members of the research team. After discussion of the data, we agreed on an initial code bank and began clustering codes around themes. We used Atlas.ti. software to organize and analyze the data.

It is important to point out that this study has several limitations that should be kept in mind. Although the housing sites were all located in low income Phoenix, Arizona neighborhoods, there were differences between these communities. However, the relatively small sample sizes of each focus group do not allow us to adequately parse out these differences.

Also, although residents had access to public transportation, the extent to which this auto-centric setting is able to be compared with sites in other cities that may have stronger public infrastructure is likely limited. Nonetheless, while these findings may not be generalizable to other sites, there is theoretical generalizability in the application of coproduction to other contexts in the study food production. Finally, it is important to note that although participants were diverse across ethnicities, the focus groups were conducted in English. As such, Spanish-only speaking residents are not represented.

Results

There were three overarching themes that emerged from residents' discussions about hunger and nutrition in their communities. These themes were: barriers to food security, strategies for producing food security, and individual and community solutions.

Barriers to Food Security

There are stereotypes and assumptions about low income residents' preference for unhealthy food. Primarily, these assumptions and stereotypes focus on a belief that residents are not aware of what they should be eating; and, therefore they are unable to contribute to food security. This is particularly important with regard to coproduction assumptions about any behavior transformations that might take place after receiving a message from a doctor or taking a class. The data revealed that parents and adolescents demonstrated understanding of nutrition-related messages about food from family and friends, the internet, school, and doctors. The following example illustrates how one participant understood her doctor's

healthy eating recommendations, but other factors came into play in her decision to engage in healthy eating behaviors.

I was talking to my doctor and he told me to stop eating pasta and rice and it's like but that is really the only thing...It's kind of like a staple food, because you know you get your grains, and you know it's starchy...

Some residents felt that advice to stop eating certain foods was not doable without access to a substitute. Even when they were making comparably better decisions, some participants highlighted that certain foods were not the best choice for their family.

I cook every meal by myself; we don't eat fast food at all. And not only that but it makes a difference, your kids are happier, they are healthier. I am sure that the pasta and rice is probably not the best for them, but it is almost like you get more sense of family.

The adults in the focus groups did not discuss messages from the media. However, the adolescents in the focus groups did. For example, one teen said, “Well, like on TV you usually see more commercials about fast food restaurants than you would, like a farmers market or somewhere more organic where you can get organic food from.”

Another teen mentioned the marketing that appeared to be directed toward them, “All these food and advertising, kids don't even think about that they just all want to eat fast food. They got LeBron James going in a McDonald's commercial.”

According to the adolescents, these messages went beyond the food choices they made. The messages contributed to a culture where youth made choices to eat out rather than cook and where being overweight was more acceptable. One adolescent described his perception saying, “Well kids nowadays take it the easy way out. Like, oh let's eat out instead of cooking something healthy. Let's be fat.”

More evidence that residents received information about what they should be eating emerged when residents discussed the foods they wished they had access to. In general, both, parents and adolescents said that they wished they had greater access to fruits, vegetables, and fresher meats. As one parent said,

But yeah, I wish there was more fruit or snap peas and things like that, I wish that were more accessible. Not just for myself but also for your family so you can show them that this is how you make things, and this is how you, you know, kind of teach them in a way.

Parents indicated that they felt bad when their children asked for food that was not easy to obtain. “That's probably the one thing that I don't buy enough of, and with my daughter um, she is the one that always complains. ‘Oh, mom we don't have any bananas. Mom we don't have any oranges.’”

The adolescents also mentioned wanting consistent access to fruits and vegetables. In sum, residents were well aware of the foods they *should* be eating; and, some had even heard messages from their healthcare providers. Yet, many of the residents were unable to transform this knowledge into coproducing behaviors due to other barriers.

The public housing developments in this study were located in low income neighborhoods with poor access to grocery stores that had fresh foods. There were also physical barriers related to actually getting to stores and markets. Much more accessible were fast food and gas station markets.

There was not a single reason for this lack of access. Indeed, although both parents and adolescents felt that the cost of fruits and vegetables limited their access to these foods, physical barriers were not always a problem. Some residents, for instance, indicated that they had no difficulty getting to grocery stores and farmers markets. Once there, however, the price of these foods made them unattainable.

And, you know, we all try to eat healthy, but it is kind of hard to do that when you go to the store and two dollars for a bell pepper. You have to pay so much money to get a pound of tomatoes or something. They are always telling us to eat healthy, this is where you can go. Then you go there, and it is like 'what's the point'? We are all supposed to eat healthy and want to eat healthy, but sometimes it is too expensive.

Adolescents had similar perceptions about their access to certain foods. “Fruits are very expensive, and they don’t last long so when you do buy them it’s a luxury to have. Vegetables are cheap in comparison, same with meats but they’re just hard to get a hold of.”

Another dimension of access was the quality of the food that was available. Residents noted that the quality of food at the stores that they had access to sometimes deterred them from buying fresh produce.

Sometimes when I go to certain stores, it’s like the fruits and vegetables they don’t look right. They just don’t look right, and you have to pick through them to find the fresh ones...they sometimes have flies on them, you know they are not fresh. Sometimes it gets to the point to where I do not buy fruit unless it is in a can. I know that it is in a can and it has syrup, but I don’t have to worry about ‘Oh I have to eat this within five minutes’ before it spoils.

Stores were not the only places that contributed to the poor access problem. Emergency food assistance programs, such as food banks, also did not have the options that residents needed or wanted. Interestingly, while residents did not mention physical distance when it came to accessing grocery stores, this did come up when it came to accessing food banks. One parent explained,

That’s the reason why I don’t use the food bank is because I walk...You can’t take it on a bus because the bus is packed...If you’re going to get on with a bunch of boxes, it’s just really cumbersome.

Food quality was also an issue associated with food banks. Residents spoke of a decline in quality and quantity over the years. For instance, one resident provided the following response,

See, back in the day they gave you a food box...They gave you two boxes of actual cereal, oatmeal, cream of wheat, block of cheese, the canned pork, canned beef, canned

chicken, I mean they gave you food. Then all of a sudden they cut it short.

Several residents spoke of similar changes with food pantries. All of the sites had access to some of these charitable organizations; and, across the different housing developments residents used different options. Part of the barrier, however, was a lack of awareness of the available food pantries. Thus, some residents communicated that they would like to have a better understanding of what was available and when.

Getting through the “In-Between Times”: Ad Hoc Support

Overwhelmingly, residents relied on food banks and other charitable organizations to make ends meet each month. Residents heard from their case workers and/or their neighbors who knew where they could go for assistance. In other cases, charitable organizations provided outreach to help residents learn about their services.

For the most part, residents’ strategies for producing food security involved piecing together assistance from different places (whether from food banks, family, church, or other assistance programs). For example, one parent said,

Yeah I go, I can’t remember the name of it, but there’s a church I go to. But you can only get a food box every 3 months. It’s big, but it’s not enough to last you 3 months. And I’ll go there and there’s another place that will give you a little food box once per week and I have been going there more than I’ve ever had to go before.

In addition to seeking out ad hoc support, residents spent considerable amounts of time making ends meet in other ways. One way was standing in line to price match. *“Especially Wal-Mart they have the price match for coupons. If their price is lower than theirs then they will price match. Even though it is a headache when we stand in line and people do that.”*

Some residents also spent additional effort looking for ways to get discounted goods. As one respondent stated, *“Also, like if you see places where you can buy cans and the cans may be a little dented or something and you can buy them all cheap.”* This is a strategy, however, that may be time intensive and unstable.

Stretching Staples

Another strategy that residents had for extending the assistance they received was food preservation. Residents at most of the focus groups discussed their techniques for making food last longer. One resident said, *“Well like when we make boiled chicken or something like that we save the broth so that we can make gravy or something like that with it.”* Similarly, another resident said,

Like you said, my mother taught me when you cook a meal (if you are working or not) you will come to those days where you do not feel like cooking. So, you might as well cook a big meal, serve half to your family and then freeze the rest of it.

Another resident noted *“...how nice it is to get pancakes out of the freezer and stick them in the toaster and ‘voila’ they are just like egos to go. It saves a lot of money.”* Within each focus group residents shared these strategies; and, they seemed to agree that this was an essential part of being able to get through each month.

As an additional strategy, the residents mentioned buying certain foods that were more versatile or that could last a long time. One resident said *“I do it by managing what I buy, you know? I’ll buy a bag of potatoes; you can do thousands of things with those. You can buy beans; my God, you can do millions of things with beans.”* Others mentioned that pasta and noodles helped to make meals heartier.

In some cases, adolescents saw themselves as instrumental in making food last longer and eating healthier. One adolescent described the process at her house.

Well, let’s say my mom she’ll buy a lot of meat, so I’ll buy a lot of vegetables to even it out. So, then I’ll cook my meals for the week because I know if she cooks or her boyfriend cooks or my boyfriend cooks there won’t be no more food by the end of the week. So, I’ll cut the meat into portions, I cook the vegetables into portions, and I make sure this goes with this meal and that goes with that meal.

It was clear that adolescents viewed themselves as an important contributor to food security in their family. They discussed how their friends would get part-time jobs in order to help their families make ends meet. They also discussed how some friends would steal from local stores to help feed themselves. One adolescent mentioned that kids would sometimes collect and sell cans to help their families get food.

Getting through the “In-Between Times”: Social Network Support

Relying on community was another theme that came up with regard to getting by each month. Residents were mixed on whether they felt there was a sense of community at their housing development. One resident described how this dynamic had changed.

People used to see people struggling for food and would invite them over. But nowadays, people are so wishy-washy. People are so hard to judge. That is part of the reason why I stay in my home. You are afraid to go out. Afraid of other people—mostly here.

Most of the participants mentioned assistance from family, friends, or neighbors. One resident said,

Yeah like within my family, a lot of times I’ll eat at my sister’s house you know I’ll bring something like maybe beans or something like that. My brother too, we’ll all three of us will eat. We will do it at my house, then we will do it at his house, and that’s how we make it go around for all three of our families.

Only a few adults mentioned that they received support from other residents in their housing development. Interestingly, it was the adolescents who spoke more about relying on friends and their community for support. They discussed how they helped friends who needed food, how their parents brought extra food to neighbors, and the practice of selling and/or sharing food stamps in the community. One teen described the stress teens felt when helping their families saying,

I mean I’ve had a couple of friends that have come up to me and asked can you help me and just very emotional and stressed out and it was all on them. All the weight was on

their shoulders and they were responsible for bringing food for the whole household.

Resident-Driven and Community Based Solutions: Changes to Existing Policies

It was difficult for the adult participants to articulate new policy changes that they would have liked to see. Instead, they often discussed expanding current programs, such as SNAP, or mentioned providing better access to food banks. Given the importance of food box and pantry programs, residents spent much of their time discussing ways to improve them. Overwhelmingly, residents felt that their communities needed better access to these services, and they had ideas for co-designing them. As one adult mentioned,

It would be nice if there were a pantry here started. I'm sure they can get donations from different places and they should start one here. For the people who don't have a car, they could get food when they need it.

Adolescents talked about having community food drives and getting people to donate more by educating them about their community's needs. Some residents also discussed changing the distribution process of food boxes. As stated,

They need to do it off of quantity in the family so a family with four or five people gets a bigger box. The place that I was going to it didn't matter how many were in your family. Sometimes it is unfair because it is first come first serve basically. Unfortunately, they run out.

As mentioned in the second theme, residents were divided over the extent to which they felt connected to their community. Yet, many of the solutions they discussed were communal in nature. Indeed, they relied on residents who worked with housing staff to organize solutions and make them available to everyone. For instance, a couple of residents suggested a coupon sharing program on-site and they discussed having a process for exchanging coupons at the community centers.

Another idea that excited participants was putting together a resource guide of food banks that contained different items so that residents could have an easier time navigating the assistance programs that were available to them. One group of adolescents also discussed having a social network site for their community to help communicate community needs and bring the residents together.

Other suggestions involved leveraging the structure of the public housing sites and bringing solutions to them. For instance, residents suggested that there should be classes geared toward food preservation. They felt that by participating in the focus groups they had learned strategies from one another, and that these lessons should continue. Some of the residents even had ideas for the content of these courses and wanted to have an active role in their creation and implementation. Several of the residents felt they could discuss the techniques that they had mentioned, such as food preservation strategies.

The participants also discussed how some people did not know how to make their food stamps last throughout the month. Some even mentioned that residents did not know how to cook, or they spent too much money on fast food. Indeed, one resident mentioned that,

Some of these young girls, I'm sorry but they can't even cook noodles. They just throw something in the microwave or go to the Jack in the Box and that's it. I see some girls

have two or three kids and they have a happy meal. That's only going to last a kid, what, like 15 minutes. So, it would be good to have cooking classes for young mothers and fathers.

Other participants had suggestions about what they would like to see in these courses. For instance, one resident said,

I would like to have nutrition classes. That would be awesome. How to put healthy meals together and what ways we can make things healthy...A lot of us probably heard it, but it doesn't stay with us, such as how many servings of fruits and vegetables we should have per day. We aren't aware of it or maybe we just forget."

Adolescents were also interested in community-based solutions to healthy eating. As one said, "I think doing it with other kids would help not only for the health, but you would be able to meet new people." The adolescents also had specific ideas for the class content. Specifically,

When it says amount per serving it means that's for one serving and a lot people don't know that. So, people should learn about calorie counting...Some of the things you think are healthy are not very healthy at all. Like, remember Nutella? Mom said it was so healthy. It turns out it had a lot of sugar. They should, people should be more aware of that because the more calories you eat the more weight you gain and the more unhealthy you get.

Five of the six sites had community gardens, but very few residents were aware of them. In fact, several residents suggested community gardens as a solution without realizing that they already had one. Adolescents were divided over whether community gardens would bring older adolescents together due to other problems in the community, such as drug use.

Discussion

This research explored ways in which families living in public housing produce their food security through coping mechanisms, help within their community, and help from external organizations. In many ways, the story that was revealed was not unique or surprising. Residents put considerable time, thought, and effort into producing their food security each month. Indeed, they often made meals with whatever food they found in their cabinets, froze food to make it last longer, use SNAP benefits, and visited food banks.

The participants in this study described some communal production of food security, such as sharing meals with family, friends, and neighbors. They also demonstrated their nutrition knowledge and expressed that health was a consideration in their buying decisions. They were, however, faced with a number of barriers to meeting their stated preferences for healthy food. This finding contradicts much of the rhetoric surrounding food security that attributes poor diet to a lack of knowledge or desire to eat healthy. Barriers that residents in this study perceived included time, awareness, cost, and access. Adolescents pointed out that messages and social pressures also contributed to poor nutritional choices. Moreover, similar to findings by Christaldi and Castellanos (2014), residents in this study discussed solutions related to increases in public assistance and food banks. However, they were also interested in community-based solutions for producing food security.

Findings from the study also suggest that there is potential for both individual and collective coproduction of food security for residents in public housing. It is important to note that up to this point in the study, we have referred to residents' efforts to provide for their food security as "production" rather than "coproduction" because there is little evidence of collaboration with providers of the relevant public services beyond necessary activities related to receiving and using SNAP. This, however, may be a missed opportunity since coproduction research finds that collaborative efforts with public service providers may enhance individual and community outcomes. In this case, resident food security (Alford, 2002; Jakobsen, 2013; Thomsen, 2017).

Many of the activities described by the residents demonstrate individual attributes that coproduction studies have found have a positive relationship with participation in coproductive activities. For instance, knowledge, salience, and relevant skills are commonly considered as necessary factors for both individual and collective coproduction (Alford, 2002; Jakobsen, 2013; Thomsen, 2017; Van Eijk & Steen, 2016). These factors are also related to self-efficacy, which is an attitude that the individual is capable of performing the task at hand. It is clear from the focus groups that many residents are knowledgeable about how to eat healthy and they have a desire to feed their families healthy meals. Indeed, several residents described the skills needed for healthy meal preparation.

In a study of individual coproduction, Thomsen (2017) found that perceived self-efficacy was more important for predicting sustained coproduction than knowledge related to coproduction activities. This suggests that increasing relevant knowledge and enhancing self-efficacy is necessary for meeting objectives. Thus, the finding that residents are knowledgeable, have relevant skills, and have feelings of self-efficacy related to producing their own food security suggests that introducing an element of coproduction through interactions and related activities with service providers may enhance individual food security.

Although research has not provided much guidance as to whether individual and collective coproduction requires different factors, collective coproduction is theorized to require the factors mentioned above along with two additional factors, community-based motivation and the existence of a feedback loop. This feedback loop allows individuals to see the results of their coproductive efforts toward their community (Van Eijk & Steen 2016).

By and large, it is clear that residents played an active role in producing their food security. It is also clear that the addition of coproduction has the potential to reshape these piecemeal and variable efforts into reliable coproductive activities that can have individual and collective benefits. Still, a crucial piece is missing—that is, active interactions and coordination with public service providers.

Normann (1984) discussed the enabling nature of service providers where they allow clients to expand their ability to provide services for themselves. This can create a community of residents able to assist governments to meet efficiency, effectiveness, and resident satisfaction objectives. However, in order for community coproduction to occur residents need to have social cohesion and a system in place for social capital exchanges. Although the social and community support in the housing developments provided residents with some support for producing food security, the extent to these factors impact their current strategies for coproducing food security is unknown. The potential is there, and residents recognize it, but the lack of institutional support seems to make exchanges limited and ad hoc.

Recent research has illustrated how management can implement institutional support in order to leverage the actions of elderly residents living in public housing (Lucio & McFadden 2015). In this same vein, results of the current study can be used to guide policy or program suggestions that leverage both the actions and the community structure of public housing developments.

First and foremost, the type and extent of possible coproduction must be considered carefully and should include discussions with residents. In this study, the focus groups provided residents with a forum where they could share ideas with one another and come up with solutions. These types of forums can be institutionalized as regular meetings facilitated by case managers. Some of the suggestions that residents made were even amenable to community coproduction, including having residents lead the development of nutrition classes in their communities or organize coupon sharing initiatives.

Residents also suggested developing resource guides for other residents and consolidating information that they received from various sources. Housing managers, they felt, could work with residents to develop a resource center on-site that also served as a way for residents to sign up for meal-sharing and ride-sharing. Residents also discussed concrete ways to improve the implementation of food banks and they had ideas that involved working with service providers to make the process better for residents.

In particular, residents were interested in community gardens, but they were not connected to existing gardens. Residents had not received information about the gardens already in their community; and, some felt that they lacked the time and energy to care for a garden. Coproducing gardens to provide healthy food for residents requires a significant investment of city staff and/or volunteers. These staff and/or volunteers could work to train residents on proper garden management and they could also disseminate information regarding harvests.

It was clear that residents felt a shift in the amount of support that they received from formal institutions, including the reduction of SNAP and the lower quality in food bank options. With cuts in these programs combined with increases in demand, alternative approaches might help to meet some of the residents' needs. However, it is important that these strategies not place a burden on residents who are already struggling in the face of numerous other barriers.

Inherently, all health-related work is related to coproduction. Since residents need to play an active role in community solutions, it may prove beneficial to bring them into the formal process in ways they are already contributing. Results from a study conducted in Indiana indicate that SNAP-Ed, an educational program, helped to increase food security in households with children. This additional educational component might be an important addition for the coproduction of food security (Rivera, Eicher-Miller, Maulding, Abbott, & Wang, 2016). Indeed, the findings from that study indicate that additional work with recipients in a coproduction mechanism might provide even more benefits.

As the trend toward dismantling public housing continues across the US (Goetz, 2003), development-based interventions might get lost in the shuffle. However, given the potential for coproduction to be more sustainable and cost-effective for low-income residents, more research is certainly needed in this area to help support policy decisions.

References

- Aldrich, D. P., & Meyer, M. A. (2014). Social capital and community resilience. *American Behavioral Scientist*, 59, 254-269. <https://doi.org/10.1177/0002764214550299>
- Alford, J. (1998). A public management road less travelled: Clients as co-producers of public services. *Australian Journal of Public Administration*, 57, 128-137. <https://doi.org/10.1111/j.1467-8500.1998.tb01568.x>
- Alford, J. (2002). Why do public-sector clients coproduce? Towards a contingency theory. *Administration & Society*, 34, 32-56. <https://doi.org/10.1177/0095399702034001004>
- Alford, J. (2009). *Engaging public sector clients: From service-delivery to co-production*. Basingstoke, England: Palgrave Macmillan.

- Bovaird, T., Van Ryzin, G. G., Loeffler, E., & Parrado, S. (2015). Activating citizens to participate in collective co-production of public services. *Journal of Social Policy*, 44, 1-23. <https://doi.org/10.1017/S0047279414000567>
- Bovaird, T., & Loeffler, E. (2012). From engagement to coproduction: The contribution of users and communities to outcomes and public value. *International Journal of Voluntary and Nonprofit Organizations*, 23, 1119-1138. <https://doi.org/10.1007/s11266-012-9309-6>
- Brandsen, T., & Honingh, M. (2016). Distinguishing different types of coproduction: A conceptual analysis based on the classical definitions. *Public Administration Review*, 76, 427-435. <https://doi.org/10.1111/puar.12465>
- Briggs, X. (1998). Brown kids in white suburbs: Housing mobility and the many faces of social capital. *Housing Policy Debate*, 9, 177-221. <https://doi.org/10.1080/10511482.1998.9521290>
- Brudney, J. L., & England, R. E. (1983). Toward a definition of the coproduction concept. *Public Administration Review*, 43(1), 59-65.
- Bruening, M., MacLehose, R., Loth, K., Story, M., & Neumark-Sztainer, D. (2012). Feeding a family in a recession: Food insecurity among Minnesota parents. *American Journal of Public Health*, 102, 520-526. <https://doi.org/10.2105/AJPH.2011.300390>
- Campbell, C. C. (1991). Food insecurity: A nutritional outcome or a predictor variable? *The Journal of Nutrition*, 121, 408-415. <https://doi.org/10.1093/jn/121.3.408>
- Christaldi, J., & Castellanos, D. C. (2014). Identifying factors, barriers, and solutions related to food insecurity in Lackawanna County, Pennsylvania. *Journal of Hunger & Environmental Nutrition*, 9, 170-182. <https://doi.org/10.1080/19320248.2014.898177>
- Cisneros, H. (2009). A new moment for people and cities. In H. Cisneros, & L. Engdahl (Eds.), *From despair to hope: Hope VI and the new promise of public housing in America's cities* (pp. 3-14). Washington DC: Brookings Institution Press
- Clampet-Lundquist, S. (2010). "Everyone had your back": Social ties, perceived safety, and public housing relocation. *City & Community*, 9, 87-108. <https://doi.org/10.1111/j.1540-6040.2009.01304.x>
- Cohen, M. J., & Garrett, J. L. (2010). The food price crisis and urban food (in)security. *Environment and Urbanization*, 22, 467-482. <https://doi.org/10.1177/0956247810380375>
- Coleman-Jensen, A., Nord, M., Andrews, M., & Carlson, S. (2012). Household food security in the United States in 2011 (September). Retrieved from <http://www.ers.usda.gov/media/884525/err141.pdf>
- Committee on World Food Security (2012). Coming to terms with terminology: Food security, nutrition security, food security and nutrition, food and nutrition security. Retrieved from <http://www.fao.org/docrep/meeting/026/MD776E.pdf>
- Deroose, K. P., & Varda, D. M. (2009). Social capital and health care access: A systematic review. *Medical Care Research and Review*, 66, 272-306. <https://doi.org/10.1177/1077558708330428>
- Dreier, P., Mollenkopf, J., & Swanstrom, T. (2004). Place matters: Metropolitcs for the twenty-first century. Lawrence, KS: University of Kansas Press.
- Ellen, I. G., & Turner, M. A. (1997). Does neighborhood matter? Assessing recent evidence. *Housing Policy Debate*, 8, 833-866. <https://doi.org/10.1080/10511482.1997.9521280>
- Fiese, B. H., Koester, B. D., & Waxman, E. (2014). Balancing household needs: The non-food needs of food pantry clients and their implications for program planning. *Journal of Family and Economic Issues*, 35, 423-431. <https://doi.org/10.1007/s10834-013-9381-0>
- Finch, B. K., & Vega, W. A. (2003). Acculturation stress, social support, and self-rated health among Latinos in California. *Journal of Immigrant Health*, 5, 109-117. <https://doi.org/10.1023/A:1023987717921>

- Franklin, B., Jones, A., Love, D., Puckett, S., Macklin, J., & White-Means, S. (2012). Exploring mediators of food insecurity and obesity: A review of recent literature. *Journal of Community Health, 37*, 253-264. <https://doi.org/10.1007/s10900-011-9420-4>
- Franzini, L., Ribble, J. C., & Keddle, A. M. (2001). Understanding the Hispanic paradox. *Ethnicity & Disease, 11*, 496-518. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/11572416>
- Goetz, E. G. (2003). Clearing the way: Deconcentrating the poor in urban America. Washington, DC: Urban Institute Press. Retrieved from <http://webarchive.urban.org/publications/210782.html>
- Greenbaum, S., Hathaway, W., Rodriguez, C., Spalding, A., & Ward, B. (2008). Deconcentration and social capital: Contradictions of a poverty alleviation policy. *Journal of Poverty, 12*, 201-228. <https://doi.org/10.1080/10875540801973609>
- Gubits, D., Shinn, M., Wood, M., Bell, S., Dastrup, S., Solari, C. D., McInnis, D., McCall, T., & Kattel, U. (2016). Family options study: 3-year impacts of housing and services interventions for homeless families. Washington, DC: Government Publishing Office; U.S. Department of Housing and Urban Development. <https://doi.org/10.2139/ssrn.3055295>
- Hendrickson, D., Smith, C., & Eikenberry, N. (2006). Fruit and vegetable access in four low-income food deserts communities in Minnesota. *Agriculture and Human Values, 23*, 371-383. <https://doi.org/10.1007/s10460-006-9002-8>
- Jakobsen, M. (2012). Can government initiatives increase citizen coproduction? Results of a randomized field experiment. *Journal of Public Administration Research and Theory, 23*, 27-54. <https://doi.org/10.1093/jopart/mus036>
- Keene, D. E., & Ruel, E. (2013). "Everyone called me grandma": Public housing demolition and relocation among older adults in Atlanta. *Cities, 35*, 359-364. <https://doi.org/10.1016/j.cities.2012.10.011>
- Koh, E. T., & Caples, V. (1979). Frequency of selection of food groups by low-income families in southwestern Mississippi. *Journal of the American Dietetic Association, 74*, 660-664. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/447971>
- Larson, N. I., Story, M. T., & Nelson, M. C. (2009). Neighborhood environments: Disparities in access to healthy foods in the US. *American Journal of Preventive Medicine, 36*, 74-81. <https://doi.org/10.1016/j.amepre.2008.09.025>
- Lucio, J., & McFadden, E. (2015). Leveraging resilience: Evidence from the management of senior low-income housing. *The American Review of Public Administration, 47*, 661-671. <https://doi.org/10.1177/0275074015616868>
- Markides, K. S., & Coreil, J. (1986). The health of Hispanics in the southwestern United States: An epidemiologic paradox. *Public Health Reports, 101*, 253-265. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1477704/>
- Nabatchi, T., Sancino, A., & Sicilia, M. (2017). Varieties of participation in public services: The who, when, and what of coproduction. *Public Administration Review, 77*, 766-776. <https://doi.org/10.1111/puar.12765>
- Needham, C. (2007). Local government: The customer in the community. In *The reform of public services under New Labour* (pp. 140-166). London, UK: Palgrave Macmillan.
- Normann, R. (1984). Service management. New York, NY: John Wiley & Sons.
- Olson, C. M. (1999). Nutrition and health outcomes associated with food insecurity and hunger. *The Journal of Nutrition, 129*, 521S-524S. <https://doi.org/10.1093/jn/129.2.521S>
- Osborne, S. P., Radnor, Z., & Nasi, G. (2013). A new theory for public service management? Toward a (public) service-dominant approach. *The American Review of Public Administration, 43*, 135-158. <https://doi.org/10.1177/0275074012466935>
- Ostrom, E., Parks, R. B., Whitaker, G. P., & Percy, S. L. (1978). The public service production process: A framework for analyzing police services. *Policy Studies Journal, 7*, 381-389. <https://doi.org/10.1111/j.1541-0072.1978.tb01782.x>

- Parks, R. B., Baker, P. C., Kiser, L., Oakerson, R., Ostrom, E., Ostrom, V., & Wilson, R. (1981). Consumers as coproducers of public services: Some economic and institutional considerations. *Policy Studies Journal*, 9, 1001-1011. <https://doi.org/10.1111/j.1541-0072.1981.tb01208.x>
- Pestoff, V. (2012). Co-production and third sector social services in Europe: Some concepts and evidence. *Voluntas: International Journal of Voluntary & Nonprofit Organizations*, 23, 1102-1118. <https://doi.org/10.1007/s11266-012-9308-7>
- Putnam, R. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon & Schuster.
- Rivera, R., Eicher-Miller, H. A., Maulding, M. K., Abbott, A. R., & Wang, Q. (2016). SNAP-Ed improves long-term household food security despite participation in SNAP or WIC at recruitment. *Journal of Nutrition Education and Behavior*, 48, S100. <https://doi.org/10.1016/j.jneb.2016.04.265>
- Rose, D., Bodor, J. N., Hutchinson, P. L., & Swalm, C. M. (2010). The importance of a multi-dimensional approach for studying the links between food access and consumption. *The Journal of nutrition*, 140, 1170-1174. <https://doi.org/10.3945/jn.109.113159>
- Rose, D., & Richards, R. (2004). Food store access and household fruit and vegetable use among participants in the US Food Stamp Program. *Public Health Nutrition*, 7, 1081-1088. <https://doi.org/10.1079/PHN2004648>
- Seligman, H. K., Bindman, A. B., Vittinghoff, E., Kanaya, A. M., & Kushel, M. B. (2007). Food insecurity is associated with diabetes mellitus: Results from the National Health Examination and Nutrition Examination Survey (NHANES) 1999–2002. *Journal of General Internal Medicine*, 22, 1018-1023. <https://doi.org/10.1007/s11606-007-0192-6>
- Seligman, H. K., Davis, T. C., Schillinger, D., & Wolf, M. S. (2010). Food insecurity is associated with hypoglycemia and poor diabetes self-management in a low-income sample with diabetes. *Journal of Health Care for the Poor and Underserved*, 21, 1227-1233. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/21099074>
- Sharkey, J. R., Dean, W. R., & Johnson, C. M. (2011). Association of household and community characteristics with adult and child food insecurity among Mexican-origin households in colonias along the Texas-Mexico border. *International Journal for Equity in Health*, 10, 19-32. <https://doi.org/10.1186/1475-9276-10-19>
- Smith, K. P., & Christakis, N. A. (2008). Social networks and health. *Annual Review of Sociology*, 34, 405-429. <https://doi.org/10.1146/annurev.soc.34.040507.134601>
- Thomsen, M. K. (2017). Citizen coproduction: The influence of self-efficacy perception and knowledge of how to coproduce. *The American Review of Public Administration*, 47, 340-353. <https://doi.org/10.1177/0275074015611744>
- Vale, L. (2002). *Reclaiming public housing: A half century of struggle in three public neighborhoods*. Cambridge, MA: Harvard University Press.
- Van Eijk, C., & Steen, T. (2016). Why engage in co-production of public services? Mixing theory and empirical evidence. *International Review of Administrative Sciences*, 82, 28-46. <https://doi.org/10.1177/0020852314566007>
- Venkatesh, S. (2000). *American project: The rise and fall of a modern American ghetto*. Cambridge, MA: Harvard University Press. Retrieved from <https://www.hup.harvard.edu/catalog.php?isbn=9780674008304>
- Waxman, E. (2017). US commentary: The family options study and food security. *Cityscape*, 19(3), 235-243.
- Whitaker, G. P. (1980). Coproduction: Citizen participation in service delivery. *Public Administration Review*, 40, 240-246. <https://doi.org/10.2307/975377>

Author Biographies

Joanna Lucio is an Associate Professor in the School of Public Affairs at Arizona State University. Her research explores how urban governance, planning, and policy impact diverse groups in society. She works to advance the rights of disenfranchised residents through the evaluation and analysis of housing and neighborhood policies and programs, particularly for low-income residents.

Meg Bruening is an Associate Professor in the College of Health Solutions at Arizona State University. Her research focuses on studying and intervening on eating behaviors of vulnerable youth and families.

Laura C. Hand is an Assistant Professor with a joint appointment between the Political Science & Public Administration department and the Master of Public Health program at the University of North Dakota. She received her Ph.D. in Public Administration and Policy from Arizona State University. Her research focuses on how public administrators, especially street-level bureaucrats, interact with the people they serve. She is especially interested in how characteristics of interpersonal interactions affect outcomes for both administrators and citizens.