ASSESSING THE PREVALENCE, PARTICIPANTS, AND PREDICTORS OF COPRODUCTION: THE CASE OF ATLANTA, GEORGIA

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by

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ASSESSING THE PREVALENCE, PARTICIPANTS, AND PREDICTORS OF COPRODUCTION: THE CASE OF ATLANTA, GEORGIA

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To Engr. Kester and Dr. Nmaobi Uzochukwu
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SUMMARY

In municipalities across the globe, traditional forms of governance are being supplemented by collaborative arrangements between governments and their constituencies toward jointly produced public services. Since the late 1970s, this phenomenon known as coproduction has been utilized in efforts to survive severe budget cuts, improve performance, increase accountability, and welcome traditionally silenced voices. However, no study to date has undergone a citywide assessment of coproduction to determine its breadth and depth in a city. Additionally, there is practically no empirical study that examines what citizen characteristics and perceptions are associated with participation in coproduction. The present study represents a first attempt to begin to fill these gaps in the literature. Specifically, this dissertation analyses: (1) How prevalent is coproduction? (2) Who engages in coproduction? and (3) What motivates coproducers? I employ a mixed-method case study of Atlanta, Georgia via its Neighborhood Planning Unit system, using focus groups, citizen questionnaires, census and GIS data, and direct observations. Overall, the coproduction classifications developed in this dissertation enable more systematic research on coproduction. The dissertation findings also contribute to our understanding of (1) how much this service delivery strategy is being utilized in an urban municipality, (2) which forms are most utilized, (3) what triggers participation in each form, and (4) who utilizes coproduction the most – even challenging the longstanding perception that African Americans and low-income groups do not participate in such activities. Lastly, study findings suggest a need to reconceptualize the current theory of coproduction as a public service delivery strategy.

Keywords: coproduction, public services, community development, urban planning
CHAPTER 1
INTRODUCTION

COPRODUCTION is a type of public participation that allows citizens to directly engage in the delivery of their public services. This phenomenon emerged in the late 1970s, a period known as the post-urban renewal era in the United States. Prior to the late 1970s, entire inner-city neighborhoods were being demolished to build highways and other infrastructure that connected central cities to newly developed suburbs. As a result of this suburbanization or “white flight” movement, there was much disinvestment in central cities, which ultimately led to the urban blight that we still see in many cities today. The emergence of coproduction is therefore widely attributed to two factors: (1) the declining fiscal capacity of central cities; and (2) a push for more inclusive processes than what existed during that time. In fact, coproduction is utilized – and in some cases, even adopted into law – in efforts to survive severe budget cuts, welcome citizen input, and meet the public’s ever-growing service needs (Alford, 2009; Brudney & England, 1983; Ferris, 1984; Mattson, 1986; Norris et al, 1993; Ostrom, 1996; Ostrom et al, 1978; Thomas, 1987, 2012; Whitaker, 1980). Today, coproduction is still recognized as a strategy for public service delivery.

Because coproduction has been researched nearly as long as it has been practiced, its vast literature is able to offer insights into the types of services that can be coproduced (e.g., Percy et al, 1980; Thomas, 1987, 2012; Whitaker, 1980); the motivations for coproducing (e.g., Alford, 2009; Levine, 1984; Pestoff, 2009); and the impacts of coproduction (e.g., Alford, 2009; Bovaird, 2007; Lovan et al, 2004; Ostrom, 1996; Pestoff, 2006; Roberts, 2008; Thomas, 1987). Unfortunately, the use of differing definitions of coproduction has made it difficult to compare these data across studies and truly understand the breadth and depth of this phenomenon (Brandsen et al, 2010). For
example, what forms of coproduction are most prevalent in public service delivery? What motivates certain types of coproduction? And who participates in specific coproduction activities? For more than thirty years, these questions have been generally overlooked by scholars. These are precisely the questions I explore in this study. I do so by conducting a focus group interview and administering a closed-ended questionnaire of Atlanta residents. The research questions driving this study are as follows:

Q1. How prevalent are specific forms of coproduction?
Q2. Who engages in each form of coproduction?
Q3. What motivates specific forms of coproduction?

The present study explores how residents interact with their local governments toward public service delivery, how often they do so, and what motivates certain types of people and specific types of interactions. Considering that coproduction emerged from the post-urban renewal push for greater citizen involvement and influence in the decisions that affect their lives, and that this push primarily came from the marginalized, urban remnants of the white flight/suburbanization movement, this study also explores whether coproduction is being utilized more by these same demographic groups who initiated such efforts long ago.

This study has important implications for future coproduction research and practice. For one, study findings suggest a need to reconceptualize the current theory of coproduction as a public service delivery strategy. Secondly, the coproduction typology developed in this study enables more systematic future research of this phenomenon. Thirdly, by ascertaining which motivations are associated with specific coproduction activities, this study enables practitioners to be more strategic about the incentives they deploy when recruiting coproducers. As well, by identifying which types of coproduction are more appealing to certain demographic groups, particularly the more vulnerable populations, practitioners might begin to explore ways to increase opportunities for those types of coproduction.
1.1 Coproduction Overview

Coproduction is studied across the globe, but scholars have differing opinions about what constitutes coproduction. And much of this disagreement seems to be rooted in their understandings of what coproduction represents, ranging from the basic citizen cooperation needed to produce a public service to the pursuit of enhanced public services by empowering citizens, to other reasons within this spectrum. Despite the lack of a consensual definition of coproduction, five criteria are widely used when defining this concept: (1) Coproduction must be a conjoint effort between government and a nongovernmental entity (typically citizens); (2) Coproduction actions must be at least partly voluntary; (3) Coproducers must be actively (versus passively) engaged; (4) Coproducers must be constructively (versus destructively) engaged so as to create public and private value; and (5) Coproduction can occur intentionally or unintentionally. (Alford, 2009; Brudney & England, 1983; Levine, 1984; Rich, 1981; Thomas, 2012). These criteria are discussed in Section 2.1.1.

Beyond these five points of consensus, disagreement persists. Specifically, there are differences of opinion about how the “conjoint” and “voluntary” criteria are interpreted. How much interaction or coordination is required between citizens and government to constitute a conjoint effort? Does compliance allow for voluntary participation? Some coproductive activities may possess no citizen-government interaction, and others may even be government-imposed, but some scholars assert that coproduction is taking place (e.g. Sharp, 1980). In the loosest interpretation of these criteria, coproduction is essentially everywhere! However, in stricter interpretations of these criteria, coproduction only occurs when citizens and government interact and when participation is fully voluntary (Brudney & England, 1983; Whitaker, 1980). And even stricter interpretations require that these voluntary interactions allow citizens to share in government’s decision-making roles (e.g., Pestoff, 2009; Weaver, 2011).
While these five criteria help establish some definitional parameters, they leave a lot of room for interpretation. Therefore, I develop a fourfold typology of coproduction based on these two most contentious criteria: *conjointness* and *voluntariness*. Scholars might agree that coproduction must be a conjoint effort between citizens and government, but deciding on the level of *conjointness* – interaction or coordination between citizens and their local governments – that constitutes coproduction is a point of contention. Likewise, the *voluntariness* of citizen coproduction is also a point of contention among scholars. Voluntariness can be compliance-based thus partially voluntary; or it can be fully voluntary.

Type I has low levels of conjointness and voluntariness. It is the essence of the phrase *government of the people*, as citizens acquiesce to being governed. The main function of Type I coproduction is to maintain societal order so as to not stall/prevent delivery of public services (e.g., obeying traffic laws, serving jury duty, and filing tax returns). Type II has higher levels of voluntariness but still low conjointness. Citizens may engage in Type II activities if they feel that their municipal services are lacking. For this or any other reason, citizens attempt to meet their public service needs via nongovernmental means (e.g., installing house and car alarms, hiring private tutors for children). Type III has low voluntariness and higher levels of conjointness. These activities have been described as *captured coproduction* because citizens participate in customer-like activities or risk either reducing the quality of their service or losing the service altogether (Brudney & England, 1983) (e.g., curbside trash pickup, food stamps). And Type IV has high levels of conjointness and voluntariness, such that citizens are actively engaged in public service delivery. Type IV coproducers report service deficiencies (potholes, etc.), propose service strategies, and even offer up the labor needed to produce the service (park clean up). Type IV is this study’s coproduction of interest, but each coproduction type is described in greater detail in Section 2.1.2.
1.2 Study Overview

1.2.1 Study Variables

As aforementioned, this study examines three research questions. Research Question 1 asks *how prevalent is coproduction*. I examine coproduction in terms of the stages of public service production – co-planning, co-implementation, co-monitoring. These are the three dependent variable categories of this study.

To understand the demographic composition of coproducers, Research Question 2 asks *who engages in coproduction*. Homeownership and having children under age 18 living in the household are included as additional predictors of coproduction participation, as well as this study’s control variables. The study also includes other control variables, such as age, race, and income.

As aforementioned, the literature offers general insights about coproduction motivations, but this study is interested in what motivates citizen involvement in specific forms of coproduction. Therefore, Research Question 3 asks *what motivates citizens to co-plan, co-implement, and co-monitor their public services*. While many scholars have written about coproduction, only a few of them have helped lay a clear framework for this concept (Alford, 2009; Marschall, 2004; Jakobsen, 2012; Parrado et al, 2013; Powers & Thompson, 1994; Thomas & Melkers; 1999). From this literature, five factors are believed to motivate citizens to coproduce, and are therefore the independent variables of this study. Citizens have material and nonmaterial motivations. Material motivations are related to their public service needs: (1) *service quantity* – citizens’ desire to retain or begin receiving a public service; and (2) *service quality* – citizens’ desire for higher quality of the service they are currently receiving. The nonmaterial motivations are: (3) *self-efficacy* – citizens’ desire to feel competent or engaged and/or citizens’ belief in their ability to be effective; (4) *citizenship* – citizens’ belief that it is their duty as a member of society or their community; and (5) *sociality* – citizens desire for a sense of belonging.
1.2.2 Study Design

This study is a case study analysis of coproduction in Atlanta, Georgia via its Neighborhood Planning Unit (NPU) system. I employed a mixed-method design, using (1) focus group interviews, (2) paper questionnaires, (3) direct observation, and (4) secondary data such as City records, U.S. Census, and GIS data. I conducted and audio-recorded one focus group interview with the eight of the 25 NPU leaders. The focus group interview and my direct observations of NPU meetings helped inform the content of the citizen questionnaire. The closed-ended questionnaire was distributed to NPU members to capture the characteristics and motivations of citizen coproducers, as well as their level and type of engagement in coproduction. These data will undergo descriptive and relational analyses, as well as bivariate and multivariate logistic regression analyses.

1.3 Significance

Public participation is the cornerstone of democracy; without it, democracy loses its most essential attribute: government by the people (Denhardt & Denhardt, 2007; Roberts, 2004). Thus, enabling citizens to participate in the public processes that affect their lives enhances democratic values (i.e., liberty, equality, and the common good). Alas, the minimal roles in governance that are customarily offered to citizens result in cynicism toward government, loss of trust in government, and feelings of alienation from government. This erosion of public support can subsequently lead to a decline in citizen participation (e.g., Arnstein, 1969; Cooper & Kathi, 2005; Levine, 1984; Thomas, 1995). Fortunately, with the resurfing interest in more meaningful participatory arrangements like coproduction, the attainment of enhanced democratic values seems possible and probable (Alford, 2009; Pammer, 1992; Roberts, 2004).

With scholars affirming the potential benefits of coproduction, this study’s findings could offer practical and theoretical contributions to a variety of disciplines, including public policy, public administration, urban planning, political science, and
sociology. Specifically, findings could reveal how much this service delivery strategy is being utilized in an urban municipality, which forms are most utilized, who utilizes each form the most, and what triggers utilization.

The ability to link motivations of coproduction to specific coproduction activities would be useful to public managers seeking to increase citizens’ participation in coproduction, particularly among traditional nonparticipants. Study findings would enable practitioners to be more strategic about how they recruit citizen coproducers for specific coproduction activities. Moreover, this study would enable more systematic research on Type IV coproduction in future studies. Finally, this study is important in understanding the state of democracy in municipalities.

1.4 Structure of Manuscript

This dissertation consists of five chapters. Chapter 2 presents the theoretical framework for understanding the prevalence, participants, and predictors of coproduction. Chapter 3 provides the empirical framework, detailing the study context, research design, data collection, and statistical analyses that will be used to carry out this study. Study findings are presented in Chapter 4, and Chapter 5 summarizes the findings and discusses the policy implications, limitations of this study, and directions for future research.
CHAPTER 2
LITERATURE REVIEW

Coproduction is not a new concept, as it has been recognized in academic and practitioner circles since the 1970s. During this post-urban renewal era, urban blight had devastated many central cities, and local governments were financially constrained in their ability to deliver public services (Brudney & England, 1983; Ferris, 1984; Kerner, 1988; Mattson, 1986; Levine, 1984; Whitaker, 1980). Concurrently, citizens were demanding greater involvement and influence in the community development decisions that affected their lives (Alford, 2009; Checkoway, 1994; Davidoff, 1965; Jacobs, 1961; Krumholz, 1982; Roberts, 2004; Thomas 2012). Hence, to help insure quality of life, promote democratic values, and meet the needs of bureaucracies, the idea of citizen coproducers became both appealing and necessary (Pammer, 1992).

Thus, while there are fewer debates about whether to engage citizens in planning and developing public services, discussions about how to do so have intensified. For instance, should citizens be involved in the planning and design phase, in the production and delivery phase, or throughout (Alford, 2009; Bryson & Crosby, 1992; Cooper & Kathi, 2005; Lovan et al, 2004; Mattson, 1986)? Should citizens be engaged individually or collectively (Bovaird, 2007; Brudney & England, 1983; Cooper & Kathi, 2005; Pestoff, 2009; Roberts, 2004; Thomas, 1995; Weaver, 2011)? And how much power should citizens actually have in the process (Arnstein, 1969; Brandsen & Pestoff, 2006; Cooper & Kathi, 2005; Ewert and Evers, 2012; Fung, 2004; Glaser & Denhardt, 2010; Musso et al, 2007; Ostrom, 2000; Pestoff, 2012; Pestoff & Brandsen, 2010; Quick & Feldman, 2011; Roberts, 2004)?

Coproduction’s popularity subsided in the 1990s, but in recent years, it has reemerged in both practice and theory. And although it is studied across the globe,
scholars have differing opinions about what constitutes coproduction. For this reason, Chapter 2 begins by defining coproduction. With coproduction defined, the subsequent sections survey the literature to understand how much coproduction occurs in municipalities, who coproduces, and why they do so. Given the importance of and need for coproduction, it is imperative that we understand the extent to which this phenomenon is being utilized in delivering local public services, as well as what factors trigger participation.

2.1 What is Coproduction?

Scholars may not agree on any one definition of coproduction, but five criteria help shape how they define the concept (For summary publications on coproduction, see Alford, 2009; Brudney & England, 1983; Levine, 1984; Rich, 1981; Thomas, 2012). Section 2.1.1 describes each of these criteria and offers a preliminary definition of coproduction for this study. Section 2.1.2 establishes a coproduction typology and specifies this study’s coproduction of interest. In Subsection 2.1.3, coproduction’s municipal prevalence is discussed.

2.1.1 Definitional Components

First, coproduction must be a conjoint effort of a traditional and nontraditional service provider, in which some of the inputs (time, money, etc.) used to produce the service are also contributed by the nontraditional provider. For example, with government being the traditional provider of public services, contributions from nongovernmental entities (e.g., citizens, nonprofits, etc.) introduce a new dynamic to the production of public services, which recognizes citizens as resources and not just recipients. Coproduction acknowledges the inadequacy of the traditional conception of service production, where the traditional provider is the sole provider (Alford, 2009; Sharp, 1980; Whitaker, 1980). Through conjoint efforts, nontraditional providers (i.e.,
consumers) supply the vital ingredients of the service that allow the service to be effective (Boyle & Harris, 2009; Whitaker, 1980). For example, the extent to which emergency assistance (fire, police, medical) is effective depends on the extent to which citizens (service users) request the service. If services are needed but are not requested, the likelihood of its effectiveness is rather slim. And because these collaborations activate new service inputs, they can potentially generate different service outputs and outcomes (Ostrom et al, 1978).

Conjoint efforts exist in the public and private sectors. Alford (2009) highlights some of the literature on conjoint efforts between businesses and customers. In the private sector, the “prosumer” (Toffler, 1980) helps to produce and consume private services. However, the coproduction phenomenon is most commonly discussed in the public sector context, where the coproducer contributes to public service delivery. Conjoint efforts between government and businesses are typically understood to be public-private partnerships or outsourcing, a product of the New Public Management of the 1990s, and are not considered coproduction. The conjoint efforts typically linked to public sector coproduction are between government and citizens or citizen groups (e.g., Marschall, 2004 and Thomas, 1987) or between government and formal nonprofits (e.g., Pestoff et al, 2006). Citizens and citizen groups are the nontraditional entities of interest in this study because of the study’s primary concern with how citizens interact with their local governments to produce public services.

Second, coproduction must be at least partly voluntary. Whitaker (1980) explains that “with the continued weakening of the family and small group relationships through which people used to work for common goals,” citizen cooperation with public agents in pursuit of a common objective (public service delivery) is especially important (p. 243). He further explains that while cooperation may sometimes be based on compliance, ultimately, it is still a voluntary act, as people decide whether or not to withhold their
cooperation. Unfortunately, it is difficult to delineate where freewill ends and compliance starts (Alford, 2009; Whitaker, 1980).

Because government’s ability to force citizen cooperation is finite, voluntary participation is necessary in coproduction. For one, all government requests are not punishable. Government can request citizen cooperation in developing or improving a public service, but they cannot require citizens to cooperate (e.g., auxiliary police officer and voting). Secondly, government can threaten to apply sanctions; but this too may not guarantee cooperation (e.g., jury duty and income tax returns). And while sanctions motivate some voluntary actions, positive incentives may be more effective in promoting citizen cooperation than negative consequences (Alford, 2002, 2009). As such, it is imperative that coproduction be at least partly voluntary.

By definition, voluntary acts are performed under one’s own free will and without compensation (Merriam-Webster.com, 2013). In the United States, appearing for jury duty is compulsory and participation is slightly compensated. Likewise, submitting annual income tax returns is also compulsory and may or may not be compensated. In both cases, sanctions, such as fines or arrests, are in place to limit noncompliance; but sanctions do not automatically elicit coproduction (Alford, 2002). But because these compulsory activities, once engaged in, require one’s willingness to make careful, complex, and ethically correct decisions in the process of being a juror or preparing tax returns, scholars agree that these and other such activities are partly voluntary and thus constitute coproduction.

But take as another example the case of prisoners. Indeed, this is a compulsory activity, but unlike jurors and tax return filers, prisoners’ willingness in being incarcerated is in no way taken into consideration (outside of appeal processes and such). Prisoners have no say in the matter, therefore they are not coproducers. Scholars also agree that citizen coproducers can receive some recompense, but they cannot be wholly reimbursed for their participation; otherwise, by definition, it is no longer a voluntary act.
For example, volunteer jurors receive a small stipend that does not equal the time and efforts they expend.

Third, coproducers must be *actively engaged*. Some cooperative behaviors may seem coproductive, but they require no action. Passive behaviors, such as refraining from stealing, littering, or defacing property, do not qualify as coproduction, as “it is difficult to conceive of doing nothing as a form of production” (Alford, 2009, 21). Conversely, some active behaviors may not seem coproductive, but they are. Examples of such active behaviors can be found in civic duties (e.g., reporting crimes, serving as a juror, obeying traffic laws), lifestyle choices (e.g., getting immunization shots, eating healthy foods, exercising), or habitual behaviors (e.g., properly discarding household refuse via curbside pickup or picking up street litter). Although civic duties, lifestyle choices, and habitual behaviors may be perceived as conventional practices or social norms, because citizens are actively engaged in the delivery or improvement of a public service, coproduction is taking place. This point links directly to another definitional component of coproduction.

Fourth, coproducers must be *constructively engaged*; that is, they must create public value. A purpose of the public sector is to address societal needs that thereby create socially valuable results. As such, three types of public value that might be coproduced are: “1) guaranteeing the conditions for the functioning of civil society and the market through provision of personal security, protection of property rights, and enforcing of contracts; 2) remedying market failures, for example through provision of public goods, countering negative externalities, or regulating natural monopolies; and 3) promoting or upholding procedural and/or distributional equity” (Alford, 2009, p. 11; see also Joshi & Moore, 2004).

Being that production is the act of creating, destructive acts, such as littering or stealing, naturally do not qualify as coproduction. Thusly, citizen coproduction is the act of generating tangible or intangible products that are of value to the public. Tangible products – or outputs – are the manifestations of citizen-government efforts; outputs can
be public policies, public goods, or public services. Intangible products – or outcomes – are the impacts of these outputs on attitudes, behaviors, and living conditions (i.e., environment, financial, intellectual, social). Given the tangibility of outputs, they are easier to measure than outcomes. Take, for example, neighborhood watch groups. One could quickly determine the output of these watch groups by identifying measures such as the number of reported burglaries or arrests. However, one would employ a more complex methodology to identify objective outcomes such as the community’s crime rate or subjective outcomes such as residents’ sense of security or sense of empowerment (Ostrom et al, 1978).

Notice that all of the coproductive behaviors mentioned thus far create public value. By obeying traffic laws, serving as a juror, or alerting authorities when a crime is witnessed, citizens are coproducing law and order. By getting immunization shots and using protective measures for everyday activities, citizens help prevent diseases and are thereby coproducing public health. And by completing income tax returns or decennial census surveys, citizens enhance government’s ability to more effectively plan and deliver public services.

Also notice that coproduction can create private value. By installing house and car alarms, citizens are coproducing their own personal safety. By exercising and maintaining a healthy diet, and taking other preventative measures, citizens are coproducing their own personal health. And by helping government plan and deliver effective public services (by providing feedback and such), citizens personally reap those service benefits. So while coproducers may have altruistic motivations to improve the quality of public services for their communities, they also anticipate personally reaping the benefits of those services (Alford, 2002, 2009).

Like pure volunteerism (e.g., disaster relief, food bank, and soup kitchen volunteers), coproduction is a form of civic engagement. Unlike pure volunteerism, service coproducers are also the service users. Instead of benefiting from their service
inputs and contributions, pure volunteers benefit from engaging in the service act itself (the act of helping others). But this type of benefit is intrinsic to any civic engagement, including coproduction. So while pure volunteers do not partake of their service output, coproducers are unique in that they reap the benefit of their efforts.

Finally, coproduction can be intentional or unintentional. From the examples provided thus far, one can see that the factors motivating these coproductive behaviors can vary. One coproducer may fear negative consequences. Another coproducer may act based on personal convictions or an altruistic orientation. Still another may perform these coproductive acts in a thoughtless and habitual manner. Yet, regardless of what catalyzes these behaviors, coproduction is taking place as long as the other four criteria (conjoint, etc.) are met. Intentionality does not dictate whether an act is coproductive.

To summarize, citizen coproduction can intentionally or unintentionally occur when there is a conjoint, voluntary, active, and constructive effort between government and citizens toward the provision of public services or, more generally, the creation of public and private value. The conception of coproduction provided in this section should lead the reader to an important observation: Coproduction is everywhere! In fact, there are few public services that do not require some level of citizen assistance. For example, public education services are unlikely to be effective without students’ willingness to engage in the learning process (e.g., listening, taking notes, completing assignments, etc.), parents’ cooperation with the school, or parents’ active involvement in their child’s schoolwork. Likewise, public safety services are heavily reliant on coproduction, as police and firefighters look to citizens to report emergencies, provide witness statements, or act as auxiliary law enforcers via neighborhood watch groups. Given this broad use of citizen coproduction, it is fair to say that it is indeed everywhere. Without it, many government functions would be difficult or nearly impossible to achieve.

This section presented five definitional components of coproduction along with classic examples of government’s dependence on citizen coproducers. While these
components help establish some basic parameters, they still leave quite a bit of room for interpretation. Thus, in the next section, I develop a coproduction typology to establish this study’s scope of interest at last.

2.1.2 Typology

There are critical differences in scholars’ interpretations of coproduction’s definitional components. For instance, should activities that involve no citizen-government interaction or coordination be considered *conjoint* (e.g., vigilante actions or privately engaging in neighborhood cleanup)? Should nondiscretionary activities or civic duties qualify as *voluntary* (e.g., reporting crimes or obeying laws)? Furthermore, should activities that do not largely benefit the public be labeled coproduction (e.g., exercising and maintaining a healthy diet)? In the strictest interpretation of these components, coproduction occurs only when government and citizens have intentional interactions with one another; participation is fully voluntary; and both public and private value is created (Brudney & England, 1983; Whitaker, 1980). In their loosest interpretation, coproduction occurs whenever citizens’ actions substitute or supplement typical government tasks – regardless of whether citizens and government interact; or whether actions are partially coerced; or whether they generate only private or only public value.

While scholars agree that coproduction must be a conjoint effort between citizens and government, deciding on the level of *conjointness* – interaction/coordination between citizens and their local governments – that constitutes coproduction is a point of contention. Likewise, the *voluntariness* of citizen coproduction (compliance-based vs. fully voluntary) is also a point of contention among scholars. Therefore, toward a more organized and meaningful assessment of coproduction, I develop a coproduction typology based on the most contentious of the five components: *conjointness* and *voluntariness* (See Table 2.1).
### Table 2.1 Coproduction Typology

<table>
<thead>
<tr>
<th>Conjointness</th>
<th>Voluntariness</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low</td>
<td>TYPE I</td>
<td>Maintaining societal order (obeying laws, jury duty, etc.)</td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td>TYPE II</td>
<td>Private service production (self-provisioning, seeking nonprofit or for-profit service)</td>
</tr>
<tr>
<td>High</td>
<td>Low</td>
<td>TYPE III</td>
<td>Adhering to service requirements (curbside trash pickup, food stamps, etc.)</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
<td>TYPE IV</td>
<td>Requesting services Reporting service deficiencies Proposing service strategies Providing service labor</td>
</tr>
</tbody>
</table>

Source: Author’s original contribution.

**Type I**

Type I coproduction has low levels of conjointness and voluntariness. Consider the activities that citizens perform as a function of being good, law-abiding citizens, such as obeying traffic laws, serving jury duty, and filing tax returns. These activities are built into society to help maintain a sense of order. They embody the phrase *government of the people*, as citizens acquiesce to being governed and submitting to a rule of law. Because citizens are tasked with adhering to established government procedures, participation in these activities is partly voluntary. Additionally, these activities are marginally conjoint, as they require no substantive interaction between citizens and their local government besides the undesirable citizen-government interactions resulting from noncompliance (e.g., jail time or issuance of speeding tickets). In fact, all of society’s activities must possess this marginal level of conjointness with government, lest they give rise to dysfunction and chaos. Since such activities should be prevalent and pervasive in any properly functioning society, Type I coproduction does not offer a useful perspective
from which to analyze how citizens interact with their local government toward public service delivery.

**Type II**

The public service production process consists of inputs, outputs, and outcomes. Early coproduction scholars described inputs as service-producing activities supplied by public agencies, citizens, as well as other nongovernmental entities (Ostrom et al, 1978; Percy, Kiser, & Parks, 1980). With the shrinking municipal budgets and rising constituent needs of that time (and today), coproduction aimed to reduce the amount of government inputs required to produce a public service by introducing nongovernmental entities to the production function. Toward an end goal of retaining or improving service levels, these scholars understood coproduction as a function of all inputs, regardless of the type of input supplier. Type II coproduction epitomizes these early and ongoing interpretations.

Local governments may fall short in their ability to provide services as effectively or sufficiently as desired by their constituents. For this or any other reason, citizens engage in Type II coproduction as an attempt to meet their public service needs. Type II activities include: (1) purchasing from private entities, (2) seeking help from nonprofit entities, or (3) self-servicing (Ferris, 1984; Linders, 2012; Mizrahi, 2012; Pestoff, 2012). For example, citizens may hire tutors for their children or send them to a private school; they may utilize a nonprofit’s tutoring or workforce development training; or they may purchase home security systems or install swimming pools in their backyards. However, in so doing, they are engaged in private service production. Although some scholars classify these activities as coproduction (Alford, 2009; Brudney & England, 1983; Ferris, 1984; Levine, 1984; Ostrom et al, 1978; Parrado, et al., 2013; Percy, 1987; Percy et al, 1980), others resolve that the more fitting label is parallel production or self-provisioning.
Type II coproduction has higher levels of voluntariness than Type I but still low levels of conjointness. Type II activities are financed with the private resources of citizens, nonprofits, or for-profits, and citizens engage in these activities at their own volition and by their own initiative. Requiring them to participate would be to unlawfully require them to expend their private resources for services they may or may not want or use. In fact, the only types of expenditures required from citizens are taxes, fees (payment for services), and fines (payment for noncompliance) – the premise of Type I coproduction. As such, products of Type II activities are not typically available for public consumption (Brudney & England, 1983; Percy et al, 1980).

Type II coproduction plays a vital role in society because citizens are able to exercise more control or autonomy in how they plan, produce, and manage their, albeit private, services. Dissatisfied citizens can offset their insufficient bureaucratic or political power with their purchasing power. Via nonprofit, for-profit, or self-provisioning measures, Type II activities have the potential to loosen citizens’ dependence on government by empowering them with options and conditioning them to help themselves.

Even so, a major part of coproduction’s appeal is the notion of citizens collaborating with their government toward service production, where each party makes substantial resources contributions (time, money, etc.). And as these Type II examples illustrate, apart from basic compliance of established government laws and procedures, no other government-citizen interaction likely exists. Furthermore, monetary contributions from government are minimal (e.g., using government voucher for private school) or nonexistent (Alford, 2009). Thus, while these activities are of great value in society and may contribute to the overall improvement of citizens’ service satisfaction,
they are not central to our understanding of how residents *interact* with their local
governments in service delivery.

**Type III**

Described by Brudney and England (1983) as *captured coproduction*, Type III coproduction cannot be forgone without disrupting public service levels. “Captured” coproducers are central players in service delivery in that when citizens do not participate in Type III coproduction, they risk reducing the quality of their service or losing the service altogether (e.g., curbside trash pick-up, food vouchers) (Brudney & England, 1983; Linders, 2012; Rosentraub & Warren, 1987; Sharp, 1980). For effective service delivery, such actions are vital but are not necessarily voluntary. Sharp (1980) contends that compliance is a necessary part of coproduction, as “[it] is one means by which citizens help to set ‘service conditions’ – the social and physical environment of service delivery” (Brudney & England, 1983, p. 62). Taking a different position, Whitaker (1980) determines that compliance represents forced or habituated cooperation in accordance with public service goals, while coproduction represents voluntary and conscious cooperation to assist government in service delivery. Nevertheless, both Sharp and Whitaker recognize that captured (or compliance-based) activities are important in public service production; otherwise, many public services would be impossible to produce.

Type III coproduction has higher levels of conjointness than Type II, as citizens work with service-providing agencies to not only set service conditions but to also adhere to them. However, with lower levels of voluntariness than Type II, Type III resembles Type I coproduction because citizens can experience negative reinforcements for their lack of participation in Type I or III. Unlike Type I, nonparticipation in Type III coproduction is not to the detriment of society (dysfunction and chaos); rather the non-coproducing individuals or households bear the consequences. As Brudney and England
(1983) assert, “service effectiveness is defined by the interaction between citizens and public officials” (p.63). Like the other forms of coproduction, Type III adds much value to the proper functioning of society and thus public service delivery. However, its low level of voluntariness makes it less appealing for this study. This study is particularly interested in activities that are highly conjoint and fully voluntary. By examining these types of activities (Type IV coproduction), we are able to understand not only how citizens interact with their local governments/public service providers but also why they do so. For example, examining “why citizens interact with government” is essentially irrelevant for Type II activities whereby citizens seek to minimize or circumvent government interactions. Furthermore, with Types I and III being only partly voluntary, participation in these activities is in large part based on compliance.

**Type IV**

Consider the activities that citizens perform as a function of expressing their public service needs, such as requesting services and reporting service deficiencies. Type IV coproduction is more conjoint than private service production, as citizens are more actively interacting with their local government by exchanging information and/or labor for their desired public service output. Type IV is also more voluntary than captured coproduction, as citizens participate completely at their own volition to enhance service quality.

Ground-level knowledge and citizen labor powers Type IV coproduction. For example, if citizens do not inform authorities of their service needs (e.g., potholes, emergencies), then the quality and quantity of the respective public service would greatly diminish. Additionally, Type IV coproducers engage in substantive partnerships with government. For example, they volunteer as teacher’s aides or auxiliary police officers. They also participate in a parent-teacher organization or organize a neighborhood watch group. Type IV coproducers could even co-plan the construction of a new community
pool by deciding project details or donating money toward its installation; or they may co-manage the facility thereafter (Ferris, 1984; Loeffler & Watt, 2009). In these examples, coproducers would be genuinely interacting with their local governments to coproduce public education, public safety, and public facilities. In addition to these partnerships, Type IV coproduction can offer unique opportunities for power exchange, whereby citizens give planning insights (e.g., propose new service or new service strategy, etc.) in order to reform or transform the service for existing and future users (Osborne & Stroksch, 2013). These partnering and power-sharing features of Type IV coproduction embodies the notion of citizen power that Arnstein’s (1969) seminal piece on citizen participation considers true participation.

Because Type IV activities tend to benefit those communities where the activities occurs, their reach and impact may not be as extensive as that of Type I activities, which help maintain societal order (Alford, 2009; Bovaird & Loeffler, 2009; Ferris, 1984; Percy et al, 1980; Petukiene, 2010; Thomas, 1987, 2012). As such, Type IV activities may potentially widen the gap between advantaged and disadvantaged groups and communities by displacing crime and other social problems to non-coproducing people or places or simply contribute to variations in service quality or quantity across jurisdictions (Jakobsen, 2012; Kaufman, 1969; Levine, 1984; Percy, 1987; Porter, 2012; Rosentraub & Sharp, 1981).

To be clear, in order for Type IV coproduction to actually occur, coordination between local governments and their constituents must exist beyond the nominal levels required to maintain compliance and participation must be fully voluntary. For example, vigilante actions may lead to the self-production of public safety – if nothing goes wrong – but it is not truly coproduction. The actual coproduction of public safety occurs when citizens report service needs to authorities and either await government action or receive authorization and instructions on what action to take. As another example, hiring a tutor or homeschooling a child may lead to the self-production of educational services; but the
coproduction of public education occurs when citizens work with the traditional public service provider by participating in the local school council or serving as a teacher’s aide at their zoned public school. Considering this study’s interest in citizen-government relations, my primary concern is the act of coproduction (voluntary interactions between citizens and government toward public service production) rather than the result of self-production (independent actions by citizens that happen to create public value).

2.1.3 Summary

Based on the various definitions of coproduction in the literature, Section 2.1.1 identified five criteria commonly used by scholars when defining the concept. These criteria are: (1) a conjoint effort between government and a nongovernmental entity; (2) at least partly voluntary; (3) active (versus passive) engagement; (4) constructive (versus destructive) engagement; and (5) intentional or unintentional. In essence, citizen coproduction occurs when there is a conjoint, voluntary, active, and constructive effort between government and citizens toward the provision of public services or, more generally, the creation of public and private value.

In Section 2.1.2, these criteria were scrutinized in terms of conjointness, voluntariness, and value creation, and a four-category typology of coproduction emerged. Traditionally, governments were viewed as the sole producers of public services and citizens as nonparticipating beneficiaries of these service outputs (Brudney & England, 1983; Mattson, 1986; Whitaker, 1980). To have viewed citizens as passive recipients of public services was an innocent misconception. But with the help of scholarly publications and validating practitioner accounts, paradigms are shifting and local governments are beginning to acknowledge the important and necessary roles that citizens have always played in the public service production process (Alford, 2009; Thomas, 2012). Thus, regardless of whether citizens’ actions are compliance-based,
voluntary, habitual, accidental, or intentional, citizens who cooperate with government to maintain societal order or enable the production of public services are coproducers.

Distinct and unique in their own right, each form of coproduction is essential to the proper functioning of a democratic society. However, only Type IV coproduction speaks to the higher levels of conjointness and voluntariness embodied in the notion of citizen power that Arnstein’s (1969) seminal piece on citizen participation considers true participation. These activities are neither compliance-based (Type I and III) nor do they circumvent government interactions (Type II). Rather, they are highly conjoint and fully voluntary activities whereby citizens are engaged with their local governments and can potentially share power in the public service production process. The type of coproduction I study herein is therefore:

Voluntary activities that engage citizens in developing, implementing, or customizing local public services whereby citizen interactions with the government exists beyond the nominal levels required for compliance. *Examples: making service requests, reporting service deficiencies, proposing new service or new service strategy, picking up street litter, cleaning graffiti, and volunteer firefighters, librarians, crossing guard.*

### 2.2 How Prevalent Are Specific Forms of Coproduction?

In the last section, I established a working definition of coproduction for this study. From this discussion, the form of coproduction that is central to this study is Type IV – activities that are fully voluntary and highly conjoint (See Table 2.1.). Under this scope of interest, still other features must be fleshed out. For one, does coproduction occur mostly during the planning, implementation, or monitoring stage of the service lifecycle? Is coproduction more commonly undertaken individually or collectively? Despite the abundance of normative and theoretical literature on coproduction, there is a dearth of empirical coproduction studies, particularly as it relates to specific forms of coproduction. Hence, the research questions driving this section are: *How popular are specific forms of coproduction? And why might this be the case?*
2.2.1 Stages of Coproduction

The public service production process consists of three stages: planning, implementation, and monitoring. See Figure 2.1. The planning stage is where the original groundwork is laid for the public service; ideas, designs, and financing are generated toward the development of a new public service (Bovaird & Loeffler, 2012). During the implementation & administration stage, the service is created, and ongoing administration ensures the proper delivery of the created service. In this latter phase of implementation, the users and/or producers of the created service coordinate and manage the delivery of the created service. In the monitoring stage, the users and/or producers of the implemented service oversee and evaluate its quality.

**Figure 2.1: The Public Service Production Process**

![Planning Implementation & Administration Monitoring](source: Author)

As citizens recognize a service need or deficiency, they may decide to participate in co-planning, co-implementing, or co-monitoring the public service. As such, coproduction can begin at any stage of the public service production process. However, it is likely that co-monitoring occurs more frequently than the other stages of the production process. Most, if not all, public services are, at the very least, monitored by citizens because citizens share responsibility with their local government in providing quality services (Percy et al, 1980).

**Hypothesis 1.** Co-monitoring is more likely to occur than co-planning and co-implementation.
The more aware citizens are of opportunities to participate in their public services, the more likely they are to perceive service problems (Marschall, 2004; Ostrom, 1996; Pammer 1992; Schneider et al, 2000; Sharp, 1980) and thus the more likely they are to also engage in the other forms of coproduction.

**Hypothesis 2.** Participation in one coproduction activity increases one’s likelihood of participating in other coproduction activities.

While co-monitoring is an age-old form of coproduction, co-implementation is attributed to the declining fiscal capacity of the public sector, as public managers began requesting citizen participation in the implementation of their public services (Brudney & England, 1983; Ferris, 1984; Levine, 1984; Mattson, 1986; Mizrahi, 2012; Whitaker, 1980). Conversely, the emergence of co-planning is widely attributed to the push for more inclusive processes (Alford, 2009; Cahn & Gray, 2012; Checkoway, 1994; Davidoff, 1965; Economic Opportunity Act, 1964; Jacobs, 1961; Krumholz, 1982; Roberts, 2004; Thomas 2012). At a time when city planning was regarded principally as physical planning (i.e., managing land uses and the spatial distribution of facilities), planning scholar and practitioner Paul Davidoff proposed a provocative and more comprehensive agenda for planners that would expand planning considerations to include advocating social factors. Davidoff (1965) introduced the concept of advocacy (or equity) planning. Ideally, advocacy planning would combat poverty and help rectify racial and other social injustices by empowering all groups in society to advocate for themselves, especially those who had suffered at the hands of urban renewal’s unitary planning\(^1\). Explaining that physical structures are merely “servants to those who use them” and assign value to them, he urged his fellow planners to shift their focus from

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\(^1\) Unitary planning is a practice that allows only one agency in a community (e.g., city planning commission or department) to prepare a comprehensive plan. As such, affected residents are seldom afforded opportunities to participate and thus have little or no influence in the planning process. Davidoff proposes more inclusive and pluralistic planning practices. (Davidoff, 1965)
inanimate objects (buildings, highways, bridges) to their value-determining users. To ascertain these values, planners would need to begin incorporating the indigenous knowledge and experiences of potentially affected communities. Davidoff (1965) states:

“There is something very shameful to our society in the necessity to have organized ‘citizen participation.’ Such participation should be the norm in an enlightened democracy. The formalization of citizen participation as a required practice in localities is similar in many respects to totalitarian shows of loyalty to the state by citizen parades… It is difficult to comprehend why this aristocratic and undemocratic form of decision making should be continued… If the planning process is to encourage democratic urban government then it must operate so as to include rather than exclude citizens from participating in the process…” (p. 334)

As such, co-planning can create a sense of competition rather than one of collaboration between citizens and their local government. Government employees may feel that their job security is being threatened and thus citizens’ co-planning efforts are met with resistance (Alford, 2009; Thomas, 1987, 1995). Ackerman (2004) asserts that co-planning is more difficult to implement than co-implementation.

**Hypothesis 3.** Co-implementation is more likely to occur than co-planning.

### 2.2.2 Collectiveness of Coproduction

Coproduction can be undertaken individually or collectively, and both forms are important (Bovaird, 2007; Brudney & England, 1980; Petukiene, 2010; Roberts, 2004; Thomas & Melkers, 1999). Activities involving higher levels of collectiveness tend to band citizens together to achieve a collective goal. Those that involve no citizen-citizen coordination are undertaken individually or by household. I expect to find more participation in individual coproduction than in collective coproduction because it is easier for citizens to act on their own than to seek ways to collectively act. For this same
reason, I also expect to find more *opportunities* to engage in individual coproduction than in collective coproduction.

**Hypothesis 4.** Individual coproduction is more likely to occur than collective coproduction.

Individual coproduction is critical in the public service production process, as public agencies cannot successfully plan, implement, and monitor public services without the cooperation of individual citizens. If services are to be at all effective, citizens must perform their expected functions. As Whitaker (1980) notes, public services seek to transform their consumers, but public agents cannot achieve this goal on their own. They can encourage and enable change, but the intended behavioral transformation can only come from the consumer. For example, a workforce development service may provide training, but it is up to the citizen to convert this input (training) into the desired outputs (e.g., acquiring the skill set being taught) and outcomes (e.g., landing and keeping a job by employing the acquired skill set). As the production process rounds out, citizens can individually help manage and improve their public services in a number of ways. Examples include: using public facilities with care to help extend the life, picking up litter around their neighborhoods, or providing feedback to public agencies to help facilitate continual improvements in service quality.

Nonetheless, Brudney and England (1983) assert that “while [individual coproduction] involves active citizen participation, without organization and coordination [with other citizens], the aggregate benefits to the city are minimal” (p. 63). Finding it difficult to distinguish individual coproduction from basic citizen functions, they conclude that individual coproduction should be placed at the bottom of the coproduction hierarchy and that the more important form of coproduction, from both practical and equity standpoints, is collective coproduction (Brudney and England, 1983). Other scholars echo this assertion, and suggest that individual coproduction does not possess
the degree of citizen empowerment that is theoretically sought in coproduction, and that collective coproduction may more closely resemble these power-sharing collaborations (Bovaird, 2007; Brandsen & Pestoff, 2006; Brudney & England, 1983; Cooper & Kathi, 2005; Ferris, 1984; Joshi & Moore, 2004; Levine, 1984; Mattson, 1986; Pammer, 1992; Pestoff, 2009; Petukiene, 2010; Roberts, 2004).

While this line of thinking may challenge widely accepted wisdom about coproduction, some scholars argue that by excluding individualistic interpretations of coproduction, discussions can focus on its original meaning and purpose. For example, Weaver (2011) argues that, by looking beyond individuals to the “concrete realities and textures of citizens’ lives and communities,” coproduction’s main objective (service personalization) is more likely to become a reality. She believes that the strength of coproduction initiatives depends on the level of information and autonomy communities are afforded. As another example, Pestoff (2009) determines that individual coproduction is too restricted to be either meaningful or democratic:

“Citizens are allowed to participate sporadically or in a limited fashion [for example, citizens can vote on local referenda or contribute money to special municipal projects]…but, they are seldom given the opportunity to play a major role in, to take charge of the service provision, or given decision-making rights and responsibilities for the economy of the service provision. This creates a ‘glass ceiling’ [that] limits citizens to playing a passive role as service users who can make demands on the public sector, but make no decisions nor take any responsibility in implementing public policy… Thus, only when citizens are engaged in organized collective groups can they achieve any semblance of democratic control over the provision of public financed services” (p. 218).

There is power in number, and coproduction literature brings the truth of this statement to light. By aggregating their efforts and resources and coordinating with local agencies, citizen groups have greater power-sharing ability and greater impact than the sum of individual actions. Collective coproduction arrangements, such as neighborhood
or school councils, are not only more likely to bestow real power on citizens, but they are also becoming a significant tool for engaging citizens in the planning, delivery, and management of local public services (Bovaird, 2007; Cooper & Kathi, 2005).

Discussing the pros and cons of direct citizen participation, Roberts (2004) argues that “individual citizens cannot realistically be trusted” (p. 324; see also Dahl, 1989 and Hart, 1972). She explains that because of the longstanding distrust in “raw individual opinions,” there are few opportunities for meaningful individual coproduction in the U.S. democratic system. She concludes, “Democracy is best achieved through collective action. Citizens are expected to promote their interests more effectively in groups rather than working as individuals” (Roberts, 2004, p. 328).

Furthermore, public agencies prefer collective efforts to contacting citizens individually, as the former is more cost and time efficient (Bovaird, 2007) and more effective at achieving citizen acceptance of a public decision (Thomas, 1995). Bovaird (2007) also recognizes the different opportunities afforded to individuals and collectives. Whereas collective coproduction is utilized throughout the public service production process, public agencies confine individual coproduction to the service delivery phase (implementing and monitoring rather planning). The literature provides strong logic for why collective coproduction is likely synonymous with co-planning; thus I suspect that collective co-planning is more prevalent than individual co-planning.

**Hypothesis 5.** Co-planning is more likely to be undertaken collectively than individually.

Along this line of thinking, I also suspect that individual co-monitoring is more prevalent than collective co-monitoring. If co-monitoring does occur more than the other coproduction stages (Hypothesis 1) and if individual coproduction is more prevalent than collective coproduction (Hypothesis 4), then these two (potentially) most prevalent forms of coproduction are likely to go hand in hand. Just as co-planning and collective
coproduction are believed to be synonymous, so also are co-monitoring and individual coproduction.

**Hypothesis 6.** Co-monitoring is more likely to be undertaken individually than collectively.

### 2.2.3 Summary of Prevalence Predictions

At the crux of this research is an interest in understanding how citizens interact with their local government in public service production – be it individually, collectively, or at any of the three production stages (planning, implementation, monitoring). To help satisfy Research Question 1 (*how prevalent is coproduction*), I explore the extent to which these forms of coproduction occur.

The literature discussed in this section helped guide my predictions about coproduction prevalence. Ultimately, I expect to find that coproduction is most prevalent at the monitoring stage and when undertaken individually. In an effort to understand the relationships between the stage activities and collectiveness, I further posit that collective coproduction is likely synonymous with co-planning and that individual coproduction is likely synonymous with co-monitoring. Therefore, the causal models for co-planning and co-monitoring (to be discussed in Section 2.4) should subsequently be similar to those for collective and individual coproduction, respectively. Finally, I assert that participation in one coproduction activity increases one’s likelihood of participating in other coproduction activities.

### 2.3 Who Participates in Type IV Coproduction?

What is the demographic make-up of Type IV coproducers? Why do they engage in these activities to begin with? There is evidence from civic engagement studies that women tend to volunteer more than men (Conway & Hatchen, 2005; Einolf, 2010; Parrado et al, 2013). Scholars are not particularly clear about why this is the case,
however they offer probable speculations. Women may be more involved in their communities due to gender role differences whereby they are believed to do more child rearing and housekeeping than males (Conway & Hatchen, 2005; Feldman & Stall, 2004). Their maternal responsibilities may expand their social network in the community and may generate greater awareness of public service needs or deficiencies, thereby making them more likely to coproduce.

**Hypothesis 7.** Females are more likely to coproduce than males.

Because coproduction allows citizens to partner in the delivery of their public services, it is thought to be especially appealing in communities where governments do not have the capacity to effectively or sufficiently provide services (Brudney & England, 1983; Ostrom, 1996; Whitaker, 1980). For example, inner cities, with characteristically high concentrations of poverty and African-Americans, have historically been underserved. As early as the 1920s, the U.S. practice of housing the poor in deteriorating areas of the city center was a “de facto national housing policy” (Byrum, 1992; Dreier, Mollekopf, & Swanstrom, 2004). And institutionalized racism – America’s unfortunate legacy and reality – fueled a number of repressive events, such as the white flight movement that contributed to the urban blight we see today in central cities across the U.S. (Cahn & Gray, 2012; Kerner, 1988).

Nonetheless, some studies suggest that coproduction is not utilized nearly as much in these areas with the greatest deficiencies in the provision of public services. Nonparticipants typically reside in largely minority, low-income communities that lack the organizational skills and internal neighborhood resources needed to collectively influence government decisions (Jakobsen, 2012; Mattson, 1986; Percy, 1984, 1987; Peters, 2010; Rosentraub & Warren, 1987; Thomas, 1987). Additionally, past bureaucratic injustices and failed attempts at meaningful citizen participation have led to cynicism, apathy, and ultimately nonparticipation (Arnstein, 1969; Levine, 1984;
Thomas, 1995, p. 25). As such, non-minority residents are more engaged in coproduction than minority residents, and communities with higher income and higher educational attainment are also more engaged.

However, scholars suggest that these participation disparities are not likely to exist if there are opportunities for power exchanges – such as those hoped for in Type IV coproduction. Recall that through Type IV coproduction, citizens not only partner in the production of their services, but they are also able to interject their preferences and tailor services to their specific needs. Arnstein (1969) asserts that participation without redistribution of power is a futile and frustrating process, particularly for the have-nots. In a study of community development and sense of community, Chavis and Wandersman (1990) express similar sentiments, stating that “a redistribution of actual power is inevitable in order to effectively generate a sense of empowerment…for those most at risk (the poor, ethnic minorities, victims of discrimination, the physically disabled, etc.)” (p. 77).

The promise of influence (rather than mere inclusion) helps galvanize citizens, including traditionally marginalized groups who tend not to participate in public affairs (Birchall & Simmons, 2004; Bovaird, 2007; Gustafson & Driver, 2005; Joshi & Moore, 2004; Sullivan et al, 2004). This promise of influence may also help sustain their participation (Thomas, 1995). Accordingly, I posit that for Type IV coproduction there is no participation disparity between minorities and non-minorities.

**Hypothesis 8.** There is no statistically significant difference in coproduction levels between minority and nonminority/White coproducers.

According to Ackerman (2012), “even the poorest citizens are exceptionally willing and able to actively work with government in constructive ways once they perceive that their participation can make a difference” (p. 101). Despite this equalizing effect of Type IV coproduction, there may be statistically significant differences for
income. Marschall (2004) points out that lower and upper income residents are less likely to coproduce than middle income residents. People who live in affluent communities are less likely to volunteer their time or energy to coproduction since they may not have significant service problems, and residents of low-income communities may have an overwhelming inventory of service problems. These contradicting truths lead me to suspect that the relationship between coproduction and income is likely negative and curvilinear, where middle-income residents are likely to coproduce more than lower and upper income residents (Jones et al, 1977; Marschall, 2004; Oliver, 1999).

**Hypothesis 9.** Middle-income residents are more likely to coproduce than low-income and upper-income residents.

Formal education may be a significant enabler of coproduction because it can potentially heighten one’s awareness of coproduction opportunities and enhance one’s ability to navigate through bureaucratic and political matters. Along these lines, Conway and Hatchen (2005) find that educational attainment is positively related to civic participation. However, Parrado and colleagues (2013) find that university-educated people are less likely to coproduce, though they note that their findings were inconsistent across coproduction activities. Because income and education are often strongly correlated with one another, I suspect that those with more education will be more likely to coproduce than those with less education.

**Hypothesis 10.** Educational attainment is positively associated with participation in coproduction.

Age, homeownership, and having dependent children are also believed to affect participation in coproduction. Thomas and Melkers (1999), who refer to these factors as “stakeholding,” assert that stakeholding prompts a majority of citizen-initiated coproduction. Conway and Hatchen (2005) suggested that older, retired residents and
people with family responsibilities, such as having young children, might be constrained in their physical mobility and thus less likely to engage in coproducive activities. Their study found no statistically significant differences for the age/retirement variable. Older adults might have more time to voluntarily coproduce. They may also “feel more vulnerable and/or less mobile and so more dependent on public services,” which could make them more likely to coproduce, as well (Thomas & Melkers, 1999, p. 669).

*Hypothesis 11.* Age is positively associated with participation in coproduction.

Having young children may have a similar effect. Thomas and Melkers (1999) suggest that because parents of young children may be concerned about protecting those children and to providing a positive environment, they may be more inclined to seek out coproduction opportunities. Additionally, Conway and Hatchen (2005) find that people with dependent children are more active in community affairs.

*Hypothesis 12.* Residents living in households with children under age 18 are more likely to coproduce than residents in childless households.

Owning a home decreases residents’ ability to move, which can thereby increase their investment in their community and their stake in their community affairs (Thomas & Melkers, 1999). Thus, overseeing their municipal services is to their benefit. I venture on to say that business ownership is another important investment that can increase one’s stake in community matters. Owners of residential and commercial investments are likely more inclined to interact with their local government and seek solutions for perceived service problems that may threaten the value of their major local investment.

*Hypothesis 13.* Property owners are more likely to coproduce than property renters.
2.3.1 Summary of Demographic Predictions

Research Question 2 asks *who engages in coproduction*. The demographic predictions discussed in this section indicate that coproduction involvement may not be very representative. Besides the expected balance between minority and non-minorities in coproduction participation, all other demographic factors are expected to have significant, and generally positive, associations. Specifically, females, middle-income residents, higher-educated residents, and older residents are expected to engage in coproduction more than their respective counterparts. Residents who have minor children living in their household and those who own a home or business are also expected to engage in coproduction more than their respective counterparts. Table 2.2 captures the demographic predictions discussed in this section.

<table>
<thead>
<tr>
<th>Coproduction</th>
<th>H7 Female</th>
<th>H8 Minority</th>
<th>H9 Income</th>
<th>H10 Education</th>
<th>H10 Age</th>
<th>H12 Child at home</th>
<th>H13 Property owner</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+</td>
<td>⊙</td>
<td>∩</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Note: + positive, ∩ negative parabolic, ⊙ no difference

2.4 What Motivates Specific Forms of Coproduction?

Many are the authors of coproduction publications, but just a small collection of scholars have helped lay a clear framework for this concept. One scholar John Alford (2002, 2009) identifies five motivators that can affect citizens’ willingness to coproduce: (1) sanctions, (2) material rewards, (3) intrinsic rewards, (4) solidarity incentives, and (5) normative appeals. Alford makes an important distinction between motivators and motivations, noting that the former are instruments deployed by government in hopes of resonating with the latter (Alford, 2009, p. 66). In other words, motivators alone cannot move citizens to coproduce; rather, as motivators appeal to citizens’ beliefs, needs, and wants, they help generate the actual motivations behind coproduction.
For example, governments impose sanctions to encourage certain behaviors from citizens; however, this motivator may resonate differently from one citizen to another. One person may coproduce based on their core value system (“This is the right thing to do”); another may act based on their personal desire not to suffer penalties; still another may be compelled for fear of the social stigmas that may come from nonconformity. Citizens’ actions can be based on a combination of motivations, so citizens with different beliefs, needs, and desires may not respond to motivators in the same way. Moreover, Alford finds that although sanctions may seem like powerful motivators, they are not widely effective in generating or sustaining coproductive behaviors. In fact, they can have unfavorable effects by bringing about rebellious citizen behaviors.

Given the public service output that is sought from coproduction, one can reasonably assume that coproducers are motivated by material rewards. However, Alford (2002, 2009) asserts that material rewards actually do little to generate desired coproductive activities because it is “difficult to specify and monitor” activities that would directly lead to the service output. In the case that a task is specifiable, the ability to monitor or enforce the activity becomes the central challenge, as these tasks are voluntary. Because of the nature of public services, nonparticipants – sometimes labeled free-riders – can easily reap a material reward (e.g., benefits of neighborhood watch initiatives) without making any contribution toward that product. As such, an appeal to citizens that coproduction provides personal and tangible benefits to them may not be reason enough for citizens to volunteer their time and efforts, particularly if there is no threat to the quantity or quality of the public service (Alford, 2002, 2009; Parrado et al, 2013; Thomas & Melkers, 1999).

So while tangible (service-related) benefits may motivate some citizens to coproduce, the more powerful motivations may be intangible incentives that tap into citizens’ personal and social vulnerabilities, i.e., intrinsic rewards, solidarity incentives, and normative appeals (Alford, 2002, 2009; Parrado et al, 2013; Powers & Thompson,
These intangible motivators are believed to be stronger predictors of citizen motivations and subsequent coproduction actions. For example, the need to be affiliated with social groups or one’s neighbors may stimulate coproduction, as citizens avoid potential social backlash from nonparticipation in a community initiative. And normative convictions may generate the personal justifications that sway citizens to coproduce, sometimes even if it is not in their own self-interest (Alford, 2009).

**Hypothesis 14.** Coproducers are more likely to be motivated by nonmaterial rewards than by material rewards.

This study examines two material motivations – *service provision/quantity* and *service quality* – and three nonmaterial motivations – *citizenship, self-efficacy, and sociality*. Each is described in Table 2.3. The broad hypothesis explored in this section is that the forms of coproduction that have been identified in this study cannot be characterized in an across-the-board fashion. Rather, each form of coproduction has its own unique set of predictors. In this section, I survey the literature to understand what motivations predict each form of coproduction.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material</strong></td>
<td></td>
</tr>
<tr>
<td>Service Quantity</td>
<td>Citizens’ perceived need and desire to retain or begin receiving a public service.</td>
</tr>
<tr>
<td>Service Quality</td>
<td>Citizens’ perceived need and desire for higher quality of a public service they currently receive.</td>
</tr>
<tr>
<td><strong>Nonmaterial</strong></td>
<td></td>
</tr>
<tr>
<td>Citizenship</td>
<td>Citizens’ belief that it is their duty/responsibility as a member of society or a resident in their community.</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>Citizens’ desire to feel competent or to be stimulated. Citizens’ belief in their ability to be effective.</td>
</tr>
<tr>
<td>Sociality</td>
<td>Citizens’ desire to be positively regarded by others. Citizens’ desire for a sense of belonging in a group.</td>
</tr>
</tbody>
</table>

Source: Author (adapted from Alford, 2009, p. 66)
2.4.1 Material Motivations

Recall that the emergence of co-implementation is attributed to the declining fiscal capacity of the public sector during the urban renewal era. The population decline, business disinvestment, and tax base erosion that followed in the 1960s and 70s left central cities financially crippled and their immobile remnants isolated and living in abject conditions. Compounding these challenges, federal and state funding to local governments was substantially reduced, causing local programs to suffer even greater cutbacks. As a result, public managers began requesting – and in some cases requiring – citizen participation in the implementation of public services (Brudney & England, 1983). For example, in the 1980s when cities experienced considerable budget reductions in their police, fire, park, and other public services, citizens voluntarily (but necessarily) picked up the slack by being auxiliary police officers, firefighters, and facility caretakers (Brudney & England, 1983). As volunteer police officers and the like, citizens helped implement their public services. As such, this influx of co-implementers helped retain public service levels (Percy, Kiser & Parks, 1980) that were in jeopardy of being lost. (Ferris, 1984; Levine, 1984; Mattson, 1986; Mizrahi, 2012; Percy et al, 1980; Whitaker, 1980)

*Hypothesis 15.* Co-implementation is motivated by a perceived need to create or retain a public service.

Coproduction was a natural response from struggling municipalities. Not only did the cities lack the tax base to provide adequate public services to its residents, but they also experienced greater demand for services because of the increased concentration of poverty. Cities needed to do more with less; meanwhile citizens were becoming more vocal about their discontent with government practices and performance (Brudney & England, 1983; Ostrom, 1978; Percy et al, 1980; Whitaker, 1980). Coproduction was used to generate greater user satisfaction of service outputs and outcomes (Brudney &
England, 1983; Ostrom, 1996; Whitaker, 1980). Thus as citizens co-implement their public services, they are also able to customize the services to better suit their needs (Percy et al, 1980; Thomas, 1987; 2012).

**Hypothesis 16.** Co-implementation is motivated by a perceived need to improve the quality of a public service.

In the monitoring stage, service users share their service expectations and experiences with their service provider (Percy, Kiser, Parks, 1980; Thomas & Melkers, 1999). Osborne and Strokosch (2013) consider monitoring “an essential and intrinsic process of interaction between any service organization and the service user at the point of production” (p. S36). Normann (1991) refers to the monitoring stage as “the moment of truth” in service provision where the consumer judges the service quality and government performance. As such, one’s desire to improve service quality is likely to spur their involvement in co-monitoring activities.

**Hypothesis 17.** Co-monitoring is motivated by a perceived need to improve the quality of a public service.

As aforementioned, planning a public service entails making key decisions about how the service will be developed, financed, and maintained. When citizens identify new public service needs, they are able to propose new public services or new policies. Through co-planning, they are also able to collaboratively brainstorm new service strategies toward redeveloping a current public service. (Ackerman, 2004; Brandsen & Pestoff, 2009; Ostrom, 1996; Whitaker, 1980)

**Hypothesis 18.** Co-planning is motivated by a perceived need to create or recreate a public service.

Moreover, co-planning helps potential service users to ensure that the forthcoming public service meets their quality standards they seek. As with co-
monitoring, citizens contribute to co-planning by sharing their service expectations with the traditional service provider. (Brudney & England, 1983; Percy et al, 1980; Ostrom et al, 1978; Ostrom, 1996; Thomas, 1987; Whitaker, 1980)

_Hypothesis 19._ Co-planning is motivated by a perceived need to improve the quality of a public service.

2.4.2 Nonmaterial Motivations

Coproduction runs on the hope of value creation. Whether tangible or intangible value is sought, the expectation of these benefits is what fuels citizen coproduction. In addition to material motivations, I put forth that three “feel good” factors contribute to one’s decision to coproduce. First, no matter the coproduction activity, coproducers are motivated by a desire to engage in a meaningful activity or a desire to feel accomplished (Alford, 2002, 2009; Marschall, 2004; Powers & Thompson, 1994). The increasing focus on meaningful participatory mechanisms has led scholars to begin associating coproduction with other recent concepts such as collaborative governance, participatory democracy, community development, and empowered citizenship (Brandsen & Pestoff, 2006; Cooper & Kathi, 2005; Corburn, 2003; Ewert and Evers, 2012; Fung, 2004; Glaser & Denhardt, 2010; Musso et al, 2007; Ostrom, 2000; Pestoff, 2012; Pestoff & Brandsen, 2010; Quick & Feldman, 2011; Roberts, 2004).

Coproducers are motivated by the power-sharing potential of coproduction that offers them influence in the decisions that affect their lives. For today’s performance-driven, accountability-minded society, the power to elect delegates, access public information, or share information with government is no longer a sufficient means of participation or democracy. Even opportunities to partake in service production and delivery may not suffice – because if they offer marginal citizen influence or autonomy, then they, too, are not likely to sustain citizen interest (Arnstein, 1969; Levine, 1984;
Thomas, 1995). For example, managers who seek involvement greater than the influence they are willing to share risk a failed public involvement process (Thomas, 1995).

Thomas asserts that incentives for citizen involvement in planning activities should, at a minimum, include influence. Moreover, from their analysis of the participation of neighborhood groups in municipal governance, Berry, Portney, and Thomson (1993, p. 295) note that a specific type of influence – “authority to allocate some significant goods and services in their communities” – can sustain citizens’ interest over the long term. As such, engaging citizens in service planning as well as service production and earnestly considering their concerns and ideas may now be the standard (Alford, 2009; Bovaird, 2007; Bryson & Crosby, 1992; Cooper & Kathi, 2005; Folz, 1991; Joshi & Moore, 2004; Lovan et al, 2004; Mattson, 1986; Keene et al, 2007; Nalbandian et al, 2013). For example conventional, participatory practices (e.g., voting, calling 911, etc.) are routinely accompanied by exchanges of ideas and power (e.g., neighborhood councils, parent-teacher organizations). This approach to service delivery can be particularly influential among citizens who feel that coproduction is a form of double taxation, whereby taxpaying citizens are running the very services they pay government to administer (Goetz & Gaventa, 2001; Levine, 1984; Thomas, 2012).

**Hypothesis 20.** Co-planning is motivated by self-efficacy.

Co-implementation also tends to be restricted to “peripheral or supplementary services, which are amenable to volunteer labor rather than those which are viewed as essential public services” (Ahlbrandt and Sumka, 1983, p. 211). Likewise, Mattson (1986) observed that cities were using coproduction as a budget management tool and load-shedding strategy to help them deliver nonessential municipal services, such as those initiated by President Lyndon B. Johnson under the Great Society social reform program, which sought to eliminate poverty and racial injustice through four main service areas: education, medical care, urban problems, and transportation. Thomas (1987) also
confirms this link between coproduction and nonessential services, noting that public services that can afford to be delayed or fully substituted by citizens are more conducive to coproduction. And fortunately, activities requiring minimal citizen expertise (low skills) are met with less resistance by citizens and public personnel (Alford, 2009; Thomas, 1987, 1995). Coproducers must possess some level of self-efficacy; this confidence in their ability to contribute to service production motivates their participation (Alford, 2002, 2009; Powers & Thompson, 1994).

**Hypothesis 21.** Co-implementation is motivated by self-efficacy.

Most, if not all, public services are, at the very least, monitored by citizens. This is because citizenship entails rights as well as responsibilities (USCIS, 2013). This citizenship logic sheds light on why scholars have questioned whether there are any public services that are not coproduced (Alford, 2009; Bovaird & Loffler, 2012). To be sure, all public services depend on citizens to be the eyes and ears of government, as government cannot anticipate every service need and potential malfunction. While citizens can choose whether or not to engage in coproduction, “if [they] refuse to coproduce where their efforts are needed, then citizens share responsibility with service agencies for inadequate service levels in the community” (Percy et al, 1980, p. 15).

**Hypothesis 22.** Co-monitoring is motivated by self-efficacy.

**Hypothesis 23.** Co-monitoring is motivated by citizenship.

Alford (2009) notes that, “people may [coproduce] even if it disadvantages them financially, because they enjoy the company, fellowship and esteem of others” (p. 27).

**Hypothesis 24.** Co-planning is motivated by sociality.

Likewise, Levine notes that, “while crime is a great issue for getting people organized, it is a poor one for keeping them organized. Instead, getting people together...
to get to know each other and then making crime prevention one activity of many the group undertakes likely would be a better mechanism for building and maintaining a crime prevention group than a short-term crime crisis” (p. 183). The lack of organizational skills may indicate that co-implementation is contingent upon citizens’ sense of belonging and neighborhood cohesion.

*Hypothesis 25.* Co-implementation is motivated by sociality.

2.4.3 Summary of Motivation Predictions

Research Question 3 asks *what motivates coproduction.* The predictions discussed in this section thus far shed light on this question. Self-efficacy and service quality needs are expected to motivate participation in all three stages of coproduction. Additionally, sociality and service quantity needs are expected to motivate participation in co-planning and co-implementation but not in co-monitoring. Citizenship is expected to motivate participation in only one form of coproduction, co-monitoring.

Where the literature is silent on the potential relationship between a form of coproduction and a particular motivation, I suspect that these relationships are positive, as well. Nonetheless, because the literature is silent here, I hypothesize that these motivations do not have statistically significant impacts on the respective forms of coproduction. In other words, the citizenship motivation is not expected to impact participation in co-planning or co-implementation; as well, sociality and service quantity need are not expected to impact participation in co-monitoring.

In sum, co-planning and co-implementation are expected to have the same set of predictors: material needs (service quantity and service quality), self-efficacy, and sociality. Co-monitoring is expected to have a different set of predictors: service quality need, self-efficacy, and citizenship. Recalling from Section 2.2 that co-planning and collective coproduction are believed to be synonymous, I therefore assert that these two
forms of coproduction share the same causal model. Likewise, individual coproduction and co-monitoring share the same causal model. With co-implementation having the same predictors as co-planning (or collective coproduction), this might indicate that co-implementation has more collective than individual attributes. Table 2.5 summarizes these predictions.

Table 2.4 Motivation Predictions

<table>
<thead>
<tr>
<th></th>
<th>Co-planning (Collective Coproduction)</th>
<th>Co-implementation (Collective &gt; Individual)</th>
<th>Co-monitoring (Individual Coproduction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quantity</td>
<td>+</td>
<td>+</td>
<td>☐</td>
</tr>
<tr>
<td>Service Quality</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Citizenship</td>
<td>☐</td>
<td>☐</td>
<td>+</td>
</tr>
<tr>
<td>Sociality</td>
<td>+</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Note: + significant positive impact, ☐ no significant impact
CHAPTER 3

METHODOLOGY

The purpose of this study is to determine the prevalence of different forms of coproduction in an urban municipality and to test predictions about the motivations and demographic characteristics of coproducers. No study to date has conducted a citywide assessment to fill these important gaps in the literature. The present study attempts to do so via a mixed-method single case study design, using (1) secondary data (population and spatial), (2) direct observations, (3) a focus group interview, and (4) paper and online questionnaires.

3.1 Study Context

The context I chose for this endeavor is the City of Atlanta, Georgia. Atlanta is the capital and most populous city in the state of Georgia. The U.S. Census estimated that Atlanta would be home to 443,775 people in 2012, and at 5.5 million people, the 28-county region that makes up metropolitan Atlanta is larger than 24 U.S. states (U.S. Census, 2014). Atlanta was chosen for the following four reasons.

First, during the wave of federal mandates for maximum feasible participation, Atlanta was one of the first cities to institute, on her own volition, formal participatory mechanisms. Toward this end, Atlanta’s Neighborhood Planning Unit (NPU) system was created as a system of 25 NPUs or citizen advisory councils that “make recommendations to the Mayor and City Council on zoning, land use, and other planning issues” (City of Atlanta, 2013). These advisory councils would help facilitate citizen participation in city planning, regardless of socioeconomic status. This gesture was rather advanced for that period of time and for the city’s geographic location in the racially and politically conservative Deep South.
Second, like many central cities, Atlanta is known for its distinctively high rates of both poverty and economic prosperity (Sjoquist, 2000). Therefore, lessons learned from this Atlanta-based study might be indicative of other central cities with similar characteristics. Through Atlanta’s NPU system, this study offers an opportunity to measure the quantity and variety of coproduction taking place in “a sharply contrasting mosaic” of high inner-city poverty and substantial economic prosperity in the other parts of the city (Sjoquist, 2000, p.1).

Third, central cities are often under greater fiscal constraints and service demands than their suburban and rural counterparts, as they attempt to meet ever growing public needs with limited fiscal resources. Additionally, urban residents are more likely to be dissatisfied with public services and are thus more likely to seek out coproduction arrangements (Ferris, 1988; Pammer, 1992). This study of coproduction in Atlanta may prove useful to urban municipalities seeking to improve their service delivery outcomes.

And fourth, for practicality and familiarity purposes, Atlanta was the most favorable site for conducting this study. Having lived in Atlanta for over a decade (and counting), I had developed an understanding of the social, cultural, and political nuances of the city, and I would not face geographic constraints in accessing data.

3.1.1 Neighborhood Planning Units

The City of Atlanta is divided into twenty-five Neighborhood Planning Units (NPUs), which are labeled as NPU-A to NPU-Z, excluding the letter U. (See Appendix A for NPU map). Each NPU represents a specific geographic area that comprises several neighborhoods. For example, NPU-V is comprised of Adair Park, Capitol Gateway, Mechanicsville, Peoplestown, Pittsburgh, and Summerhill – a total of six neighborhoods. The NPU system was established in 1974 by Maynard Jackson, the first African-American mayor of Atlanta. The city ordinance that authorized this system begins:

The council finds that it is in the public interest for the City of Atlanta to have an organized program of neighborhood planning…to provide an opportunity both for
The citizenry formally to provide input… and to provide a means by which information concerning the operation of city government can be provided to the citizens of Atlanta. (Municipal Code Corporation, 2013)

The ordinance also provides the following definitions (shortened below):

**Neighborhood planning unit**, NPU, means (1) a geographic area composed of one or more contiguous neighborhoods, which have been defined by the department of planning and (2) a body of residents of such geographic area organized for the purpose of engaging in comprehensive planning matters affecting the livability of neighborhoods. (Municipal Code Corporation, 2013)

*Resident* shall mean any person 18 years of age or older whose primary place of residence is within the neighborhood planning unit, or any corporation, organization, institution or agency which owns property or has a place of business or profession within the NPU. (Municipal Code Corporation, 2013)

The NPU system enables residents to participate in two-way communication concerning all functions of their municipal government, including public service delivery. As such, the NPU system offers an opportunity to observe and measure the co-planning of public services in Atlanta, Georgia. Per the city ordinance:

[NPUs] may recommend an action, a policy or a comprehensive plan to the city and to any city agency on any matter affecting the livability of the neighborhood, including, but not limited to, land use, zoning, housing, community facilities, human resources, social and recreational programs, traffic and transportation, environmental quality, open space and parks; assist city agencies in determining priority needs for the neighborhood; review items for inclusion in the city budget and make recommendations relating to budget items for neighborhood improvement; and advise the bureau of planning on the preparation of the 15 and five-year comprehensive development plans. (Municipal Code Corporation, 2013)

Each NPU holds one general body meeting per month to convene residents, City and County representatives, as well as state and local elected officials who want to share or receive information from their constituents about major or ongoing initiatives. Roughly 20-50 residents attend these meetings, which are open to the public (residents and nonresidents). Each NPU has a standing meeting day (e.g., 1st Monday, 3rd Tuesday, etc.). All NPU meetings follow a general template provided by the City’s Department of Planning and Community Development (hereinafter referred to as the Department). who
manages the NPU system. (See Appendix B for the city template and two actual agendas). NPUs may hold additional meetings (zoning committee, education committee, etc.) during the month based on their specific needs and structure; but these meeting agendas are not posted on the City website as with the general body meetings. Results of committee meetings are presented at the general body meeting.

NPUs have standing committees for public service issues that require continuous discussion and decision-making throughout the year or for a longer period of time; they also have special committees for specific and temporary concerns. Most NPUs have the following (standing or special) committees: public safety, land use/zoning, community or economic development, transportation, parks and recreation, education, and bylaws.

The city ordinance provides a general template of how NPUs are to operate, but each NPU must establish her own bylaws and elect an executive board annually. The Department assigns one city planner to each NPU. Currently, nine city planners are assigned to two NPUs each, and seven planners are assigned to one NPU each. However, assisting their assigned NPU in the planning and service delivery process is only one facet of these planners’ duties. Their other duties are not specific to NPUs.

NPUs are not funded by the City or any other government agency. Some NPUs collect donations during their monthly meetings, and some request membership dues from the neighborhood associations (not individual members) that make up the NPU. NPUs can apply for funding through the City’s community enhancement programs and external sources, but generally, NPUs do not rely on a budget to maintain operations.

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2 “Neighborhood Planning Unit Grant Program” awards NPUs up to $3,500 to fund beautification projects, increase awareness about neighborhood efforts, and support activities that build capacity and leadership skills. “Love Your Block Grant” awards up to $1,000 to neighborhood organizations or Atlanta residents to develop and execute their own neighborhood beautification projects (e.g., building gardens, removing graffiti, clearing litter, planting trees, creating innovative open spaces, etc.).
3.2 Secondary Data Collection

Prior to developing study instruments or interacting with study subjects, I compiled secondary data of Atlanta to understand the study context. I used census block data from the U.S. Census 2010 Population and TIGER (Topologically Integrated Geographic Encoding and Referencing) files to calculate the geographic and population characteristics for Atlanta and for each NPU. A census block is the smallest geographic unit used by the Census Bureau to tabulate 100-percent data (rather than sample data). Census blocks are grouped into block groups, which are grouped into census tracts.

Based on the Census data, thirteen NPUs (G, H, I, J, K, L, R, S, T, V, X, Y, Z) have median household incomes (MHIs) less than $35K; three NPUs (M, O, P) have MHIs between $35K and $55K; seven NPUs (B, D, E, F, N, Q, W) have MHIs between $55K and $85K; and two NPUs (A, C) have MHIs above $85,000. These income categories (Table 3.1) were patterned after scholarly works on income and social class designations (Beeghley, 2004; Bowles, Kotkin & Giles, 2009; Gilbert, 2002). Taking into consideration each work’s unique income and social class categories, I developed a four-category scheme that specifies income brackets for lower, lower-middle, upper-middle, and upper class. In Table 3.2, demographic information is provided for these income categories: percentage of Atlanta’s population it represents, racial composition, educational attainment, percentage of households with children under 18 and with seniors (65 years and over), and median age. (See Appendix C for a breakdown by NPU.)

Table 3.1 NPU by Median Household Income

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Income Range</th>
<th>NPU (from lowest to highest MHI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower-Middle</td>
<td>$35,000 - $54,999</td>
<td>M, O, P</td>
</tr>
<tr>
<td>Upper-Middle</td>
<td>$55,000 - $84,999</td>
<td>W, E, D, N, Q, F, B</td>
</tr>
<tr>
<td>Upper</td>
<td>$85,000 and above</td>
<td>C, A</td>
</tr>
<tr>
<td>Atlanta Population</td>
<td>$51,170</td>
<td>All NPUs</td>
</tr>
</tbody>
</table>
Table 3.2 Atlanta Demographics by Income Category

<table>
<thead>
<tr>
<th></th>
<th>Lower</th>
<th>Lower Middle</th>
<th>Upper Middle</th>
<th>Upper</th>
<th>Atlanta Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Atlanta population</td>
<td>40%</td>
<td>14%</td>
<td>39%</td>
<td>7%</td>
<td>100%</td>
</tr>
<tr>
<td>% Afro-Am/Black</td>
<td>92%</td>
<td>68%</td>
<td>18%</td>
<td>6%</td>
<td>54%</td>
</tr>
<tr>
<td>% Euro-Am/White</td>
<td>5%</td>
<td>25%</td>
<td>70%</td>
<td>87%</td>
<td>38%</td>
</tr>
<tr>
<td>% w/ Bachelor’s degree</td>
<td>17%</td>
<td>42%</td>
<td>68%</td>
<td>81%</td>
<td>46%</td>
</tr>
<tr>
<td>% of Households w/ children under 18</td>
<td>32%</td>
<td>20%</td>
<td>15%</td>
<td>30%</td>
<td>23%</td>
</tr>
<tr>
<td>% of Households w/ seniors (65yrs and over)</td>
<td>26%</td>
<td>15%</td>
<td>12%</td>
<td>23%</td>
<td>18%</td>
</tr>
<tr>
<td>Median age</td>
<td>33</td>
<td>33</td>
<td>35</td>
<td>40</td>
<td>33</td>
</tr>
</tbody>
</table>

Note: See full breakdown by NPU in Appendix C.

3.3 Primary Data Collection

3.3.1 Direct Observation

Like secondary data collection, direct observation is another useful precursor to collecting the data of primary interest (via focus group and questionnaire). Direct observation allows researchers to enter the study context and explore its complexities in an unobtrusive manner (Nightingale & Rossman, 2004; Rossman & Rallis, 2003; Trochim, 2006; Yin, 2009). The direct observer is not an active participant in the study context. Rather, she strives to be as inconspicuous and detached from the study setting as possible, so as to not bias the observations. Direct observations are most appropriate for open, public settings where anyone is welcome to attend or participate. Therefore, attending the monthly NPU meetings as a direct observer did not require the knowledge or consent of members and would not raise ethical concerns.
Because some direct observations may be atypical, it was important that I attend multiple meetings throughout the city during an extended period of time. I attended the monthly meeting for all 25 NPUs at least two times between January 2013 and April 2014. In so doing, I witnessed firsthand how this co-planning activity occurs without interrupting its natural flow. I also observed differences in meeting attendance, meeting length, meeting agenda, citizen-citizen interactions, citizen-government interactions, and types of decision-making opportunities at each NPU. During these monthly meetings, NPU residents and City and County representatives provided citywide and NPU-specific updates, reported on concerns regarding local public services. Meetings focused primarily on the following service areas: police, fire, code enforcement, public works (water, roads, signage, sanitation, recycling), parks and recreation, community-related court cases, and general locality development concerns (e.g., land use and zoning, alcohol licensing, permitting for a new business, etc.).

I recorded my observations on the printed meeting agendas provided at each meeting and/or on a personal notepad. In general, I recorded the number of meeting attendees, the predominant age group, the tone/ambiance (friendly vs. hostile, formal vs. informal, passionate vs. indifferent), and any major decisions made or major concerns brought up during the meeting. These observations are beyond the scope of the present study, therefore no results are provided here.

Direct observation was a necessary part of this study not only because it helped me familiarize myself with the study subjects, but also because it was very critical to the success of all subsequent data collection. Attending each NPU meeting allowed me to introduce myself and my research to the NPU leaders and later to the general body. These initial interactions with NPU members generated the interest, support, and cooperation I received thereafter.
3.3.2 Focus Group

Focus groups are semi-structured interviews comprised of a moderator and a small group of individuals. The moderator asks open-ended questions to invite rich discussions among participants (Goldenkoff, 2004; Yin, 2009). Ultimately, the moderator seeks to obtain detailed information about a specific topic from individuals believed to have the best or most reliable vantage points (Goldenkoff, 2004). Unlike other forms of group interviewing, focus groups allow participants to feed off of each other’s varied experiences or views on the given topic (Krueger, 1988). Through group interaction, one participant may bring up points that otherwise may have been forgotten by others in the group; this leads to more extensive discussion on the topic than would occur through individual interviews (Goldenkoff, 2004). Furthermore, focus group findings can reveal important real-time trends, as well as noteworthy changes from how things used to be.

For this study, the focus group would help: (1) identify specific examples of coproduction activities taking place in Atlanta; (2) get an idea of which public service areas are more frequently or more easily coproduced; and (3) ascertain the general motivations behind citizen coproduction. The focus group would allow for a quick turnaround analysis, such that its findings could be used to finalize the pre-constructed questionnaire to be completed by a larger sample of the Atlanta population (Goldenkoff, 2004; Stewart & Shamdasani, 1990). Findings would also help avoid the “if only we had known beforehand” problem (Patton, 2002, p. 431).

All 25 NPU chairs were invited to participate in the focus group. (See Appendix D for the recruitment email.) NPU chairs were considered to be knowledgeable about what coproduction activities are taking place in their locale. Because of their leadership roles within their NPUs and communities, their local perspectives would lend credibility to the focus group findings. Ten NPU chairs (or corresponding board member) accepted the focus group invitation; eight showed up to the interview; and, due to a family
emergency, one participant left within 30 minutes after the interview began. A total of seven NPU leaders and one moderator convened in Atlanta’s City Hall Conference Room #1 on Saturday, February 8, 2014 at 3 p.m. There were five male and three female NPU leaders, representing three lower income NPUs, two lower-middle income NPUs, and two upper-middle income NPUs; no upper income NPU was represented. Five of the participants were African-American and two were Caucasian. Focus group participants were fairly representative of the Atlanta population.

Before the session officially began, I handed out the IRB-approved consent form (Appendix E) to each participant. As they reviewed the document, I read it aloud. The end of the document stated, “If you are willing to volunteer for this research and be audio-recorded, please proceed to the meeting room.” All participants proceeded into the conference room. They were asked to keep the consent form for their records, as it contains their rights as participants, as well as the contact information for the research team and the Georgia State University Office of Research Integrity.

I moderated and audio-recorded the two-hour focus group interview. To maintain some level of confidentiality, participants introduced themselves before the recording began – though they were fairly familiar with each other through the NPU system. Two audio recorders were used to capture the discussion. One device mysteriously stopped recording after 90 minutes, but fortunately, the other device captured the entire 120-minute session. “Once the interview is complete, write-ups should be done immediately and should be as complete as possible” (Caudle, 2004, p. 419). The audio recording was transcribed by Rev.com within seven days, and I analyzed the transcript for accuracy and thematic content shortly thereafter (Caudle, 2004; Krueger, 1988).

During the interview, I followed the focus group protocol detailed in Appendix F. I began the interview by handing out a double-sided 5x7 index card (Appendix G). My scripted introduction was on side 1 of the index card. The introduction is critically important to the success of the focus group because it “describes the purpose of the study
to ensure that everyone has a common understanding of why they are there” (Goldenkoff, 2004, p. 347). I read the introduction out loud, and then asked an easy “warm-up” question to get participants comfortable with speaking in the group, as well as to confirm their understanding of coproduction (Goldenkoff, 2004). I asked:

“After hearing this statement, what examples come to mind of citizens partnering in the production or delivery of municipal services? Or in an ideal world, what would such interactions look like to you?”

By not offering any initial suggestions, this open-ended question allowed them to paint their own picture of what coproduction is. I wanted to ensure that the coproduction activities that emerged from this focus group and utilized in the questionnaire would be valid and relevant among other Atlantans. This was an important exercise because if citizens do not consider an activity meaningfully engaging, is it in fact coproduction? For example, while scholars and practitioners have often referred to jury duty as coproduction, some of the focus group participants adamantly rejected that notion because their interpretation of coproduction was that it needed to be fully voluntary.

Second, I read side 2 of the index card, *The Stages of Public Service Production*, which defined the three stages of public service delivery – planning, creating, and monitoring. Because the series of questions that followed these definitions was the very essence of this focus group, the index card would help keep the discussion on track by allowing participants to refer to the three definitions throughout the discussion. I asked participants to provide specific examples of how they or other Atlanta residents co-plan, co-create, and co-monitor their local public services. When participants seemed to struggle with recollection, I offered broad examples of coproduction (from the literature) to help stimulate recall. At the end of this discussion, I asked, “Of the three stages – planning, creating, monitoring – which happens most in Atlanta?” Four participants selected co-monitoring, two selected co-planning, and one abstained. The coproduction
activities listed in Table 3.3 were identified during the discussion and corroborated by at least one other participant.

<table>
<thead>
<tr>
<th>Table 3.3 Coproduction Activity Results from Focus Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Co-Planning</strong></td>
</tr>
<tr>
<td>▪ Share feelings about a policy or project concerning the community.</td>
</tr>
<tr>
<td>▪ Donate money for an event, facility, or project in the community.</td>
</tr>
<tr>
<td><strong>Co-Creating</strong></td>
</tr>
<tr>
<td>▪ Clean streets, parks, or other public areas in the community.</td>
</tr>
<tr>
<td>▪ Patrol neighborhood with police officer or neighbors.</td>
</tr>
<tr>
<td><strong>Co-Monitoring</strong></td>
</tr>
<tr>
<td>▪ Report suspicious activity in the community.</td>
</tr>
<tr>
<td>▪ Report potholes, streetlight outage, or other service malfunctions.</td>
</tr>
<tr>
<td>▪ Report neighbors when they are noisy, messy, or violating other codes.</td>
</tr>
<tr>
<td>▪ File complaint against service agent via Atlanta Citizen Review Board.</td>
</tr>
<tr>
<td>▪ Thank or share positive feedback with public service representative.</td>
</tr>
<tr>
<td>▪ Attend the court hearing of someone accused of committing a crime in the community (Court Watch Program).</td>
</tr>
</tbody>
</table>

Third, I handed out a second 5x7 index card with a list of typical local public services. As they scanned this list, I asked them to place a 1, 2, or 3 beside the three service areas that produce the most interactions between residents and public service agencies. Once all participants had completed this exercise, I asked each participant, one at a time, to reveal what they selected as the most, 2nd most, and 3rd most coproduced service area. When a service area was named, I began a tally for it as this group’s collective representation of Atlanta’s most coproduced service area. Planning services (land-use, zoning, and locality development) were among the top three most coproduced service areas for all seven participants; Parks & Recreation services for six participants; Public Safety services (police and code enforcement) for five participants; Education services (K-12 and workforce development) for four participants; and Public Works (streets and signage) for two participants. Public Safety (police and code enforcement) services were selected the most (thrice) as the #1 most coproduced service area, followed by Education and Planning services, which were each selected as #1 twice.
Additionally, I asked participants to identify service areas on the list where coproduction simply does not occur. They noted that coproduction does not occur within the following service areas: ambulance, fire, library, sanitation, and water. I asked if any service areas were not on this list. They also did not identify any missing service areas.

Lastly, I asked participants to share what motivates them to engage in any of the coproduction activities discussed thus far, and/or what they think motivates others to do so. The themes that surfaced from this discussion are: civic duty; socializing with other residents; making a difference in terms of enhancing community/property value or a specific public service. At the end of the focus group interview, I thanked participants for their time and thoughtful responses.

3.3.3 Questionnaire

The purpose of this study is to quantitatively answer the questions “how much coproduction takes place in Atlanta” and “why do Atlantans coproduce?” Through the in-depth sharing of ideas and counter-ideas, the focus group’s qualitative findings provided a stepping stone toward “how much” by identifying a list of possibly the most popular coproduction activities taking place in Atlanta. The focus group findings also helped identify the best way to phrase these activities and their motivations when surveying the broader study sample. Recognizing that focus groups are used for understanding rather than for measuring (Goldenkoff, 2004), I developed a closed-ended questionnaire to achieve this study’s quantitative objectives.

A questionnaire was the most suitable instrument for measuring the prevalence of and motivations behind coproduction for a number of reasons. First, while focus groups work best with 6-12 people, questionnaires are most useful in studies involving large samples. Second, because questionnaires can reach a large and varied pool of respondents, this enables the researcher to make inferences about the sample’s population. For this study, I sought to obtain generalizable results from a sample of
Atlanta’s NPU membership population. Third, having identified a list of response categories via the focus group, the focus group findings helped to ensure measurement (or construct) validity of the resulting questionnaire. Fourth, questionnaires are a quick and cost-efficient data collection method, especially when the respondents are easy to locate or contact. This was the case for this study because, as mentioned in Section 3.1.1., the City of Atlanta publishes all NPU meeting dates, locations, and contact information on its website. Furthermore, a closed-ended questionnaire would allow for a much quicker analysis of a large dataset than would open-ended questions. Fifth, even though the questionnaire was not viewed simultaneously by all respondents, each respondent received an identical set of questions at the time of their viewing and completing the survey. Question uniformity helped to ensure reliability, internal validity (for inference purposes), and external validity (for comparison purposes). Finally, questionnaires permit anonymity. Questions about one’s actions, attitudes, and attributes can bring about a sense of unease for respondents. Therefore, assuring anonymity may not only enhance response rates, but it may also encourage more truthful responses (Newcomer & Triplett, 2004).

A well formulated and formatted questionnaire is critical to the success of a study. I prepared good questions by keeping the questions concise and using simple words and familiar community terms. I developed a clean questionnaire layout by providing clear instructions, only four key questions, and a logical sequence for the questions. The questions were listed from most important (first) to least important (last), based on the objectives of this study. The potentially more sensitive/confidential questions were placed at the end, so as to not immediately discourage respondents from participating. I pretested the paper questionnaire with colleagues who are currently Atlanta residents and at NPU-Z’s monthly meeting. This helped me identify possible shortcomings of the questionnaire and to confirm whether it would take 15 minutes to complete the form.
The survey questionnaire is available in Appendix H. Questionnaire responses captured the characteristics and motivations of citizen coproducers, as well as their level and form of engagement in coproduction. Table 3.4 presents the five components of the questionnaire.

### Table 3.4 Questionnaire Structure

<table>
<thead>
<tr>
<th>Q1</th>
<th>Dependent Variables – Measures the prevalence and frequency of specific coproduction activities that exist in Atlanta, based on focus group findings.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2 – Q3</td>
<td>Independent Variables – Measures the motivation behind the coproduction.</td>
</tr>
<tr>
<td>Q4</td>
<td>Additional Indicators – Evaluates quality of local public services.</td>
</tr>
<tr>
<td>Q5 – Q15</td>
<td>Control Variables – Homeownership, age, race, and other demographic info.</td>
</tr>
<tr>
<td>Q16</td>
<td>Open-Ended Question – Opportunity for detailed or additional information.</td>
</tr>
</tbody>
</table>

Note: See Section 3.4 for description of study variables.

While a “good” questionnaire is critical to the success of a study, targeting the right audience and getting that audience to respond to the questionnaire are equally critical. Atlanta’s NPU system provided a convenient yet relevant target population for this Atlanta-based study. And by limiting the sampling population to the NPU system, I was able to target individuals who were most relevant to the focus group findings. Using NPU members as my target population limited my sample to Atlanta residents who are inclined to coproduce. This would allow me to measure the prevalence of “the most popular coproduction activities” (from the focus group) among those believed to be coproducing. By attending monthly NPU meetings, NPU members engage in at least one form of coproduction (co-planning). Additionally, no dataset purchase would be necessary, and all corners of the City would potentially be represented in the dataset.

I used two collection modes to administer the 15-minute questionnaire: an online survey and a paper survey. This was necessary because during my direct observations at the NPU meetings, some NPU members expressed to their leaders a preference and/or
need for hardcopy communications rather than email correspondence. Some members noted a lack of access to such technologies, and others noted a lack of tech-savviness. Hence, over the course of 30 days, I attended the regularly scheduled monthly meeting for all 25 NPUs and distributed the questionnaires to attendees who had not completed the web version. To ensure anonymity, respondents submitted paper questionnaires by inserting them into a sealed and centrally-located ballot box (Groves et al, 2009; Newcomer & Triplett, 2004; Yin, 2009).

The web survey would allow me to reach members who were not present at the particular monthly meeting when the paper questionnaire was distributed. Web responses would also diversify my respondent pool to Atlanta residents who are less active or no longer active in their NPU but are still in the membership database. These individuals may have once been more active, not only in NPU activities, but also in other forms of coproduction in the city. Thus, using two collection modes would help reveal the characteristics and motivations of coproducers and non-coproducers.

Each NPU has a database of their members’ email addresses. I sent an email invitation to the 25 NPU chairpersons (See Appendix I) requesting that they forward the email to their membership list. To encourage survey participation, it was important that this recruitment email be sent by a recognized or respected NPU member, rather than an unknown researcher (Newcomer & Triplett, 2004). The email contained the link to the Survey Monkey questionnaire and the participation deadline, as well as the purpose and importance of the study.

I also used a raffle prize to encourage survey participation, for both the paper and web questionnaires. Participants who submitted the questionnaire were entered for two chances to win a $50 Visa gift card. This is a reasonable incentive to motivate these necessary study subjects, and it is an ample return on a 15-minute time investment. For the paper version, those who chose to enter the raffle were given a small slip of paper to provide an email address or phone number where they could be contacted if they won.
This raffle slip was inserted into a ballot box when they submitted their questionnaire. For the web version, participants could choose to enter an email address or phone number at the end of the survey. A consent form accompanied the online and paper questionnaire (See Appendix J). Two winners were randomly selected using Stata statistical software and contacted thereafter. The gift cards were mailed to the address they provided.

With the exception of one or two abstentions per meeting, nearly 100 percent of NPU meeting attendees enthusiastically completed the paper questionnaire. The response rate for the online questionnaire is uncertain because the email invitations were sent directly by the NPU chair. In-person surveys tend to have high responses rates, and mailed and web versions tend to have low response rates (Newcomer & Triplett, 2004). Thus, the response rate for the online version was likely much lower than that of the paper version.

There were 406 paper responses and 391 online responses, totaling 797 observations for this dataset. I exported the data from the online questionnaire from Survey Monkey to Microsoft Excel. I inputted the paper questionnaire data into the same MS Excel spreadsheet. Once I cleaned and edited the coding for the combined master dataset, I imported the data into SPSS and Stata statistical software packages for analysis.

3.4 Study Variables

The dependent variable (DV) in this study is participation in coproduction. Coproduction is examined in terms of production stage: co-planning, co-implementing, and co-monitoring. Coproduction is also examined in terms of collectiveness: individual vs. collective coproduction. I measured participation in coproduction by asking Question 1: “In the last 12 months, how many times have you participated in the following activities?” For each activity that was listed below this question, respondents checked one of four boxes: “Never,” “1 to 3 times per year,” “4 or more times per year,” and “More than one time per month.” The activities listed in Table 3.3 (above) were used in
the questionnaire to measure co-planning, co-implementing, and co-monitoring. Two activities emerged from the focus group for co-planning: “Personally contacted my local elected official to share feelings about a specific policy or project that affects your community” and “Donated money for an event, facility, or project in your community.”

To gauge residents’ involvement in formalized and collective (versus individual) co-planning activities, I also asked respondents about how frequently they attend Atlanta City Council meetings, NPU meetings, and neighborhood association meetings. Because respondents who completed the paper survey did so at an NPU meeting, the online responses may offer a more accurate measure of the prevalence of NPU meeting attendance. However, this NPU meeting attendance question was developed to measure frequency more so than prevalence, to compare its frequency against that of the other two collective co-planning meeting activities.

Two activities were identified for co-implementing: “Helped clean streets, playgrounds, or parks in your community” and “Patrolled my community with a police officer or neighbors.” Six activities emerged for co-monitoring: “Reported suspicious activity,” “Reported a pothole, streetlight outage, or other service malfunctions,” “Reported code violations to officials, such as when neighbors were too noisy, too messy, or improperly parked,” “Filed a complaint through the Atlanta Citizen Review Board,” “Contacted my City or County to thank them or share positive feedback,” and “Attended a court hearing of someone accused of committing a crime in your community.”

Five independent variables (IVs) measured NPU members’ motivations for coproducing: service provision and service quality, which speak to their public service needs, and self-efficacy, sociality, and citizenship, which speak to their intrinsic needs. I measured the IVs by asking Question 2, “Why did you (or why would you) participate in the above activities? Choose up to THREE choices and RANK as 1, 2, and 3.” The eight choices for this question are listed in Table 3.5 in terms of the independent variable they measure. A 9th choice “Other” allowed respondents to specify. For descriptive purposes,
these variables’ values were left as 0, 1, 2, 3. For inferential statistics, the values were recoded as dummy variables, where 1, 2, and 3 equal 1.

To control for respondents’ individual characteristics, measures of gender, race, income, education, age, home and business ownership, and having minor children living in the household are included in the study. \textit{Female} is a binary variable with female coded as 1 and male coded as 0. \textit{Race} is an ordinal variable from which I create the \textit{minority} dummy variable, with minority coded as 1 and nonminority/White coded as 0. The \textit{income} and \textit{education} variables have four categories coded from 0-3. The education categories are less than high school diploma, high school diploma, bachelor’s degree, and graduate degree. The income categories are lower income ($0-$34,999), lower-middle ($35,000-$54,999), upper-middle ($55,000-$84,999), and upper income ($85,000 or more). I also included an income-squared variable in order to test for curvilinear income effects. The \textit{age} variable has seven categories coded from 0-6. The age groups are 18-24 year olds, 25-34 year olds, 35-44 year olds, 45-54 year olds, 55-64 year olds, 65-74 year olds, and 75yrs + year olds. Homeowner, home renter, business owner, and a minor child living in the home are binary variables. An NPU variable was also included to compare respondents by their neighborhood characteristics.
3.5 Statistical Analysis

Microsoft Excel and ArcGIS were used to input and clean the data. Stata and SPSS were used for conducting the statistical analyses. To answer the first research question regarding coproduction’s prevalence, I used descriptive and relational statistics, including percent distributions and correlations. To answer the second research question regarding why citizens coproduction, I tested the causal relationships between coproduction and the citizen perception variables using binary and multinomial logistical regression analyses, t-tests, Chi-square tests, average partial effects, base value effects, and Wald and Likelihood Ratio tests.

Logistic Regression Analysis: \( y_{1-5} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \ldots + \beta_M x_M + \epsilon \)

Where:
- \( y_1 \) is participation in co-planning
- \( y_2 \) is participation in co-implementation
- \( y_3 \) is participation in co-monitoring
- \( y_4 \) is participation in individual coproduction
- \( y_5 \) is participation in collective coproduction
- \( x_1 \) is female respondent
- \( x_2 \) is minority respondent
- \( x_3 \) is income of respondent
- \( x_3a \) is income^2 of respondent
- \( x_4 \) is education respondent
- \( x_5 \) is age of respondent
- \( x_6 \) is dependent child living with respondent
- \( x_7 \) is home/business ownership status of respondent
- \( x_8 \) is service provision motivation
- \( x_9 \) is service quality motivation
- \( x_{10} \) is self-efficacy motivation
- \( x_{11} \) is citizenship motivation
- \( x_{12} \) is sociality motivation

\( \epsilon \) is the error term
These following hypotheses will be tested in this study:

**Hypothesis 1.** Co-monitoring is more likely to occur than co-planning and co-implementation.

**Hypothesis 2.** Participation in one coproduction activity increases one’s likelihood of participating in other coproduction activities.

**Hypothesis 3.** Co-implementation is more likely to occur than co-planning.

**Hypothesis 4.** Individual coproduction is more likely to occur than collective coproduction.

**Hypothesis 5.** Co-monitoring is more likely to be undertaken individually than collectively.

**Hypothesis 6.** Co-planning is more likely to be undertaken collectively than individually.

**Hypothesis 7.** Females are more likely to coproduce than males.

**Hypothesis 8.** There will be no statistically significant difference in rates of coproduction participation between minority and nonminority/White coproducers.

**Hypothesis 9.** Middle-income residents are more likely to coproduce than low-income and upper-income residents.

**Hypothesis 10.** Educational attainment is positively associated with participation in coproduction.

**Hypothesis 11.** Age is positively associated with participation in coproduction.

**Hypothesis 12.** Residents living in households with children under age 18 are more likely to coproduce than residents in childless households.

**Hypothesis 13.** Property owners are more likely to coproduce than property renters.

**Hypothesis 14.** Coproducers are more likely to be motivated by nonmaterial rewards than by material rewards.

**Hypothesis 15.** Co-implementation is motivated by a perceived need to create or retain a public service.

**Hypothesis 16.** Co-implementation is motivated by a perceived need to improve the quality of a public service.

**Hypothesis 17.** Co-monitoring is motivated by a perceived need to improve the quality of a public service.

**Hypothesis 18.** Co-planning is motivated by a perceived need to create or recreate a public service.

**Hypothesis 19.** Co-planning is motivated by a perceived need to improve the quality of a public service.

**Hypothesis 20.** Co-planning is motivated by self-efficacy.

**Hypothesis 21.** Co-implementation is motivated by self-efficacy.

**Hypothesis 22.** Co-monitoring is motivated by self-efficacy.

**Hypothesis 23.** Co-monitoring is motivated by citizenship.

**Hypothesis 24.** Co-planning is motivated by sociality.

**Hypothesis 25.** Co-implementation is motivated by sociality.
RESULTS

4.1 Descriptive Statistics

4.1.1 Sample Characteristics

A total of 797 Atlanta residents responded to the questionnaire. Females made up 53 percent of this sample. Only 2 percent of the sample were ages 18 to 24; only 4 percent were ages 75 and above; and the other age groups were comparable in their sample proportions, ranging from 15 to 22 percent.

African-Americans made up 43 percent of the study dataset; Caucasians made up 52 percent; and all other races made up 5 percent of the sample. Sixty percent of the African-American respondents were female, compared to 50 percent of the Caucasian respondents. Sixty-nine percent of the African-Americans in this study completed the paper questionnaire; and 65 percent of the Caucasians completed the online version. With 54 percent of Atlanta’s population being African-American, the majority of the NPUs and thus the majority of NPU meeting attendees are largely represented by this race group, hence the high percentage of African-American paper survey respondents.

As previously shown in Table 3.2, the upper and middle-upper income NPUs have low concentrations of African-Americans. Based on my direct observations at NPU meetings, these more affluent NPUs have noticeably fewer meeting attendees. The meetings often consisted of only the NPU Board, residents or business owners scheduled to speak during the meeting, and residents or business owners who have special interest in an item on the meeting agenda. The NPU Board emails the meeting minutes to their much larger mailing list of residents in the affluent NPUs. This may explain why the online respondents are primarily Caucasians while the paper respondents are primarily represented by lower-income NPUs with less access or use of email among their members.
The income of the study participants is distributed as follows: 25 percent low income, 14 percent lower-middle income, 17 percent upper-middle income, and 44 percent upper income. Of the online respondents, 55 percent were in the upper income bracket with roughly similar distributions among the other three income brackets (ranging from 12 to 19 percent). Of the paper respondents, 36 percent were in the lower income bracket, 32 percent in the upper income bracket, and 15 and 16 percent, respectively, in the lower-middle and upper-middle brackets. Forty percent of the African-Americans in this sample reported having upper-middle or upper income; seventy-eight percent for Caucasians.

Given the income distribution, the educational attainment of participants was no surprise. Ninety-three percent of Caucasian respondents have at least a Bachelor’s degree, compared to 71 percent of African-Americans. Additionally, it is a known challenge that less educated people are less likely to participate in surveys than those with higher educational attainment. This is even more pronounced in the case of online surveys (Newcomer & Triplett, 2004). This study’s online questionnaire was primarily completed by people with Bachelors and Graduate degrees – each comprising 46 percent of the online respondents (92 percent total). For 7 percent of the online respondents, a high school diploma was their highest educational attainment, and 0.5 percent had no diploma. The paper respondents are comprised of 2 percent high school dropouts, 24 percent high school graduates, 40 percent college graduates, and 34 percent graduate degree holders (74 percent total with at least college degree). The educational attainment for the overall sample is 17 percent with a high school diploma or less and 87 percent with a Bachelor’s degree or more.

The online and paper versions had similar characteristics for respondents with children under 18 living with them, homeownership, and business ownership; although parenthood and homeownership are slightly higher for online respondents, and business ownership is slightly lower. For the overall sample, 25 percent have children under the
age of 18 living with them, 14 percent are renters, 82 percent are homeowners, and 12 percent own a business in Atlanta.

During Shirley Franklin’s two terms as mayor (2002-2010), the City of Atlanta conducted a quarterly Citizen Satisfaction Survey to capture the shifting priorities and attitudes of its residents, toward improving the efficiency and effectiveness of the City’s public services (N = 600 per quarter). The sample characteristics for my study are fairly comparable to the City’s survey results in terms of respondents’ gender, race, income, and age distributions. These respondent characteristics are summarized in Table 4.1.

For race and income, notice that the respondent characteristics for the paper version are more closely in line with the City survey than the online version is. The online survey has considerably less minority and low-income representation than the City survey (and the paper version, as mentioned earlier). Also notice that respondents’ education and homeowner status are not distributed similarly to either the paper or the online survey version. My study sample has a much higher proportion of homeowners and more educated respondents than the City survey. Considering that the primary subjects of this study are NPU members, it is no surprise that there are considerably more homeowners in this sample. As discussed in Section 2.3, this stakeholder factor likely plays an important role in citizen involvement in public service delivery.

These differences between this study’s respondent characteristics and those of the City study suggest the following: (1) the online data collection method is not the most suitable for generating a representative sample of Atlanta residents, in terms of race and income; and (2) this study’s participants (NPU members) have higher educational attainment and are more likely to be homeowners than the general Atlanta population. The present study’s overall data collection method was able to mirror Atlanta’s population in terms of gender and age. The City survey did not collect data on whether children under age 18 live in the household, so respondent characteristics could not be compared with the City survey on this basis.
Table 4.1 Respondent Characteristics (%)

<table>
<thead>
<tr>
<th>Total Sample</th>
<th>Paper</th>
<th>Online</th>
<th>Total Sample 100 (N=797)</th>
<th>Atlanta Survey 100 (N=600)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>53</td>
<td>49</td>
<td>47</td>
<td>48</td>
</tr>
<tr>
<td>Female</td>
<td>47</td>
<td>60</td>
<td>53</td>
<td>52</td>
</tr>
<tr>
<td>Afro-Amer/Black</td>
<td>59</td>
<td>27</td>
<td>43</td>
<td>57</td>
</tr>
<tr>
<td>Euro-Amer/White</td>
<td>36</td>
<td>68</td>
<td>52</td>
<td>35</td>
</tr>
<tr>
<td>All others (Asian, Latino, etc.)</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>$0-$34,999</td>
<td>37</td>
<td>14</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>$35,000-$54,999</td>
<td>15</td>
<td>12</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>$55,000-$84,999</td>
<td>16</td>
<td>19</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>$85,000 or more</td>
<td>32</td>
<td>55</td>
<td>44</td>
<td>35</td>
</tr>
<tr>
<td>High school diploma or less</td>
<td>27</td>
<td>8</td>
<td>17</td>
<td>45</td>
</tr>
<tr>
<td>Bachelors or more</td>
<td>74</td>
<td>92</td>
<td>83</td>
<td>55</td>
</tr>
<tr>
<td>18-24 year olds</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>25-34 year olds</td>
<td>16</td>
<td>21</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>35-44 year olds</td>
<td>19</td>
<td>26</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>45-54 year olds</td>
<td>18</td>
<td>21</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>55-64 year olds</td>
<td>19</td>
<td>20</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>65-74 year olds</td>
<td>20</td>
<td>10</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>75yrs + year olds</td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>---</td>
</tr>
<tr>
<td>Household w/ child under 18</td>
<td>22</td>
<td>29</td>
<td>25</td>
<td>---</td>
</tr>
<tr>
<td>Home renter</td>
<td>17</td>
<td>10</td>
<td>14</td>
<td>45</td>
</tr>
<tr>
<td>Homeowner</td>
<td>74</td>
<td>88</td>
<td>82</td>
<td>55</td>
</tr>
<tr>
<td>Business owner</td>
<td>15</td>
<td>10</td>
<td>12</td>
<td>---</td>
</tr>
</tbody>
</table>

By studying coproduction via NPU members, the prevalence of the coproduction activities identified during the focus group as popular in Atlanta is likely higher than it would be if the general Atlanta population was surveyed. In Table 4.2, notice that coproduction is more popular among paper respondents (those who attended the NPU meeting when I distributed the questionnaire). As expected due to the data collection method, nearly all paper respondents indicated that they attended an NPU meeting at least once during the past 12 months; whereas NPU meeting attendance was still high but less prevalent among online respondents. There were also considerable differences in prevalence between paper and online respondents for attending City Council meetings.
The difference of means t-tests find these differences to be significant at the 0.01 level, which means that when it comes to engaging in these two activities, there is a clear distinction between online and paper respondents. For sharing opinions, cleaning public areas or facilities, attending community-related court hearings, reporting code violations, filing complaint against service agent, and thanking service agent, the difference between online and paper respondents are significant at the 0.01 or 0.05 levels. For community meetings, donating/financing, patrolling, reporting suspicious activity, the difference shown in Table 4.2 seems rather negligible. Their t-tests confirm this, as they do not find these differences to be significant even at the 0.10 level. As such, there is likely no difference between paper and online respondents when it comes to participating in these five activities.

### Table 4.2 Paper vs. Online Respondents: Coproduce at Least Once per Year

<table>
<thead>
<tr>
<th>Activity</th>
<th>Paper</th>
<th>Online</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend City Council meetings</td>
<td>70%</td>
<td>34%</td>
<td>36***</td>
</tr>
<tr>
<td>Attend NPU meetings</td>
<td>96%</td>
<td>53%</td>
<td>43***</td>
</tr>
<tr>
<td>Attend community meetings</td>
<td>81%</td>
<td>78%</td>
<td>3</td>
</tr>
<tr>
<td>Share opinions about community project</td>
<td>75%</td>
<td>69%</td>
<td>5**</td>
</tr>
<tr>
<td>Donate money for a community event or project</td>
<td>77%</td>
<td>75%</td>
<td>2</td>
</tr>
<tr>
<td>Clean public areas or facilities</td>
<td>80%</td>
<td>71%</td>
<td>9***</td>
</tr>
<tr>
<td>Patrol neighborhood</td>
<td>28%</td>
<td>29%</td>
<td>-1</td>
</tr>
<tr>
<td>Attend community-related court hearings</td>
<td>33%</td>
<td>18%</td>
<td>15***</td>
</tr>
<tr>
<td>Report code violations</td>
<td>60%</td>
<td>51%</td>
<td>9***</td>
</tr>
<tr>
<td>Report suspicious activity</td>
<td>74%</td>
<td>69%</td>
<td>5</td>
</tr>
<tr>
<td>Report service malfunction</td>
<td>66%</td>
<td>61%</td>
<td>5</td>
</tr>
<tr>
<td>File complaint against service agent</td>
<td>9%</td>
<td>3%</td>
<td>6***</td>
</tr>
<tr>
<td>Thank service agent</td>
<td>57%</td>
<td>46%</td>
<td>11***</td>
</tr>
</tbody>
</table>

Note: *** p<.01, ** p<.05, * p<.10

Whether or not respondents engage in these activities helps us understand the prevalence or popularity of these activities among NPU members. To further understand respondents’ coproduction levels, I analyze the frequency at which they engage in each activity. The percentage of respondents who frequently coproduce is presented in Table
4.3. The percentages in this table represent respondents who indicated that they participate in the activity “4 or more times per year” or “more than one time per month.” I merged these two values and labeled them as “frequent,” leaving “1 to 3 times per year” to represent “occasional” and “Never” to represent itself.

Table 4.3 Paper vs. Online Respondents: Coproduce “Frequently” (%)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Paper</th>
<th>Online</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend City Council meetings</td>
<td>22</td>
<td>7</td>
<td>15***</td>
</tr>
<tr>
<td>Attend NPU meetings</td>
<td>62</td>
<td>32</td>
<td>30***</td>
</tr>
<tr>
<td>Attend community meetings</td>
<td>61</td>
<td>43</td>
<td>18***</td>
</tr>
<tr>
<td>Share opinions about community project</td>
<td>33</td>
<td>28</td>
<td>7**</td>
</tr>
<tr>
<td>Donate money for a community event or project</td>
<td>25</td>
<td>26</td>
<td>-1</td>
</tr>
<tr>
<td>Clean public areas or facilities</td>
<td>35</td>
<td>31</td>
<td>4***</td>
</tr>
<tr>
<td>Patrol neighborhood</td>
<td>11</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Attend community-related court hearings</td>
<td>5</td>
<td>2</td>
<td>3***</td>
</tr>
<tr>
<td>Report code violations</td>
<td>22</td>
<td>22</td>
<td>0*</td>
</tr>
<tr>
<td>Report suspicious activity</td>
<td>27</td>
<td>21</td>
<td>6**</td>
</tr>
<tr>
<td>Report service malfunction</td>
<td>22</td>
<td>20</td>
<td>2**</td>
</tr>
<tr>
<td>File complaint against service agent</td>
<td>2</td>
<td>1</td>
<td>1***</td>
</tr>
<tr>
<td>Thank service agent</td>
<td>17</td>
<td>14</td>
<td>3***</td>
</tr>
</tbody>
</table>

Note: *** p<.01, ** p<.05, * p< .10

Paper and online respondents differ considerably when it comes to attending City Council, NPU, community association meetings, with significance at the 0.01 level. The remaining 10 coproduction activities have smaller differences, ranging from -1 to 7 percentage points, though some of these differences are significant at the 0.001, 0.01, or 0.05 levels. In most cases, the paper version has a higher percentage of frequent coproducers than online respondents. Furthermore, the significance of these differences indicates that, in the population, paper respondents are not only more likely to coproduce (prevalence), but they are also more likely to do so more frequently. The significance of these minor differences between paper and online respondents helps justify why the latter 10 activities can be analyzed as a whole, rather than sorting and analyzing them by paper or online respondents.
4.1.2 Coproduction Prevalence

Surprisingly, the study data does not support Hypothesis 1 that co-monitoring is the most prevalent form of coproduction. The data reveals that co-planning activities are more popular and generally more frequently coproduced than co-monitoring activities (See Table 4.4). Attending community meetings is the most popular coproduction activity in this study, with 79 percent of respondents participating in this activity at least once during the past 12 months. In fact, with the exception of attending City Council meetings (52%), all co-planning activities have higher participation levels than even the most popular co-monitoring activity, reporting suspicious activity (71%). Contrary to what was expected, this finding suggests that, like the basic production process, the coproduction process may start at the planning stage rather than the monitoring stage. However, this pattern might be, at least in part, a reflection of the survey population, who are more involved in co-planning by virtue of being NPU members.

Tied at 76 percent respondent participation, donating money for an event, facility, or project in the community (co-planning) and cleaning streets, parks, and other public areas in the community (co-implementation) are the second most prevalent coproduction activities taking place among Atlanta residents who are inclined to coproduce. Because of the data collection method, attending NPU meetings (75%) is not included in this ranking assessment, therefore the third most prevalent activity is contacting elected officials to share opinions about a community-related project or policy (72%). This co-planning activity occurs less than the neighborhood cleaning co-implementation activity, thereby supporting Hypothesis 3 that co-implementation is more likely to occur than co-planning. However, with less than a third of these likely coproducers patrolling their neighborhood, this co-implementation activity occurs far less than all co-planning activities. Thus, the study data partially supports Hypothesis 3. Some co-planning activities occur more than some co-implementation activities, and vice versa.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Total Prevalence</th>
<th>Frequent Coproducer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend City Council meetings</td>
<td>52</td>
<td>14</td>
</tr>
<tr>
<td>Attend NPU meetings</td>
<td>75</td>
<td>47</td>
</tr>
<tr>
<td>Attend community meetings</td>
<td>79</td>
<td>52</td>
</tr>
<tr>
<td>Share opinions about community project</td>
<td>72</td>
<td>31</td>
</tr>
<tr>
<td>Donate money for a community event/project</td>
<td>76</td>
<td>26</td>
</tr>
<tr>
<td>Clean public areas or facilities</td>
<td>76</td>
<td>33</td>
</tr>
<tr>
<td>Patrol neighborhood</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>Attend community-related court hearings</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>Report code violations</td>
<td>55</td>
<td>22</td>
</tr>
<tr>
<td>Report suspicious activity</td>
<td>71</td>
<td>24</td>
</tr>
<tr>
<td>Report service malfunction</td>
<td>63</td>
<td>21</td>
</tr>
<tr>
<td>File complaint against service agent</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Thank service agent</td>
<td>51</td>
<td>15</td>
</tr>
</tbody>
</table>

Additionally, while collective co-planning and individual co-planning have comparable levels of participation, the study data does not fully support Hypothesis 5 (collective co-planning is more prevalent than individual co-planning). On the one hand, attending community-related meetings (collective co-planning) is more prevalent than both individual co-planning activities. On the other hand, City Council meeting attendance (collective co-planning) is less prevalent than both individual co-planning activities.

The focus group results offer much evidence in support of Hypothesis 6 that co-monitoring is more likely to be undertaken individually than collectively. Only individually executed co-monitoring activities were identified during the focus group.

Hypothesis 4 predicted that individual coproduction would be more prevalent than collective coproduction. Notice that participation in individual coproduction ranges widely from 6 percent to 76 percent, and collective coproduction ranges from 52 percent to 79 percent. This is in large part due to the fact that collective coproduction is housed in only one production stage (planning), which happens to be the most popular stage; while individual coproduction is measured across all three stages, including the least
popular co-monitoring stage. Hypothesis 4 is supported in the sense that there are more opportunities to engage in different types of individual coproduction, whereas collective coproduction has limited but more regularized opportunities for engaging residents.

To test Hypothesis 2, I measured the strength and direction of the relationships between the 13 coproduction activities. The correlation coefficient is often used for this task, but in order to more precisely measure the association between these ordinal variables, I used Goodman & Kruskal’s Gamma via cross-tabulations of the 13 coproduction activities (See Table 4.5). The crosstabs yielded a gamma statistic of at least 0.30 for each relationship (except one), indicating that the activities have moderate to strong positive associations with one another. Furthermore, these relationships were significant at the 0.05 or 0.10 level, therefore also indicating that, in the population, participation in one coproduction activity increases one’s likelihood of participating in other coproduction activities. The study data supports Hypothesis 2.

To evaluate the factor structure of the 13 dependent variables and thereby legitimately create an index variable for each form of coproduction, I conducted a series of factor analyses. The five planning activities would make up the co-planning index, and so on for co-implementation and co-monitoring. Alas, the factor analyses did not provide the statistical support needed to cluster these variables. In fact, the factor analysis did not produce clusters that were meaningful based on the literature or on intuition. Therefore, rather than assessing three indicator variables for coproduction participation, I interpreted all 13 dependent variables individually but compared them to the other activities in their production stage category. In other words, the regression model for reporting code violations was assessed individually and compared to the regression models for the other five co-monitoring variables. These comparative results are discussed in Section 4.2.
Table 4.5 Strength/Direction of Relationships between Coproduction Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Mtg</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPU Mtg</td>
<td>2</td>
<td>.63</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ngbhd Mtg</td>
<td>3</td>
<td>.43</td>
<td>.59</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advise</td>
<td>4</td>
<td>.47</td>
<td>.52</td>
<td>.56</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donate</td>
<td>5</td>
<td>.36</td>
<td>.31</td>
<td>.46</td>
<td>.49</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean</td>
<td>6</td>
<td>.39</td>
<td>.38</td>
<td>.48</td>
<td>.45</td>
<td>.60</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patrol</td>
<td>7</td>
<td>.30</td>
<td>.35</td>
<td>.41</td>
<td>.42</td>
<td>.37</td>
<td>.39</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td>Hearings</td>
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<td>.50</td>
<td>.45</td>
<td>.45</td>
<td>.59</td>
<td>.34</td>
<td>.37</td>
<td>.49</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violations</td>
<td>9</td>
<td>.36</td>
<td>.48</td>
<td>.39</td>
<td>.60</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Suspicions</td>
<td>10</td>
<td>.35</td>
<td>.39</td>
<td>.49</td>
<td>.59</td>
<td>.41</td>
<td>.46</td>
<td>.53</td>
<td>.56</td>
<td>.70</td>
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<td></td>
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<tr>
<td>Malfunctions</td>
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<td>.35</td>
<td>.46</td>
<td>.43</td>
<td>.65</td>
<td>.40</td>
<td>.46</td>
<td>.45</td>
<td>.51</td>
<td>.69</td>
<td>.69</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ACRB</td>
<td>12</td>
<td>.65</td>
<td>.56</td>
<td>.39</td>
<td>.57</td>
<td>.25</td>
<td>.42</td>
<td>.70</td>
<td>.72</td>
<td>.64</td>
<td>.66</td>
<td>.68</td>
<td>1</td>
</tr>
<tr>
<td>Thank</td>
<td>13</td>
<td>.57</td>
<td>.56</td>
<td>.55</td>
<td>.79</td>
<td>.46</td>
<td>.53</td>
<td>.50</td>
<td>.63</td>
<td>.61</td>
<td>.58</td>
<td>.64</td>
<td>.70</td>
</tr>
</tbody>
</table>

Note: All associations are significant at the .05 or .10 level, except those in **BOLD**.

4.1.3 Coproduction Participants

Generally, coproduction is more prevalent among respondents who are male, minorities, less educated, older, homeowners, and business owners. The data is not as consistent and clear-cut for the income and kids in household variables. The bivariate inferential statistics in Table 4.7 confirm these descriptive findings. Table 4.7 also provides the strength, direction, and the statistical significance of these relationships via the gamma statistic and the p-value. The higher the gamma value is, the stronger the association between the given independent and dependent variable. From Table 4.6, the highest statistically significant gammas are found in the relationship between minority and ACRB (0.78), income and ACRB (-0.44), minority and NPU meeting (0.43), education and ACRB (0.39), and minority and City Council meeting (0.38).

I expected to find that women are more engaged in coproduction than men (Hypothesis 7); however, the data suggests otherwise. Men coproduce more in all but one activity – donating/finance – in which the two genders are equally engaged in coproduction. The gender differences are not substantial (Table 4.6), but they are...
statistically significant (Table 4.7) for neighborhood cleanups, for reporting suspicious activity in the community, and for nearly all co-planning activities (except donating).

I hypothesized that minority and non-minority/White residents would not have statistically significantly differences in their coproduction levels, but the study data does not support Hypothesis 8. Minority respondents have substantially higher coproduction levels than non-minorities. For example, in the population, minorities are 4.49 times more likely to attend NPU meetings than non-minorities; 1.99 times more likely to patrol their neighborhood; 8.55 times more likely to file a complaint against their public service agent, and so on. However, when it comes to attending community meetings, donating money, and neighborhood cleaning activities, engagement levels are fairly comparable and these differences are not statistically significant – which supports Hypothesis 8.

Contrary to Hypothesis 9, lower income respondents are more coproducive than middle and upper income respondents in 9 of the 13 coproduction activities. Moreover, middle-income respondents are more likely to coproduce than upper-income respondents. The income-squared variable (not shown here) provides little to no evidence that the expected negative curvilinear relationship exists between income and participation in coproduction. This is explored in Section 4.2.4. The odds that lower-middle income residents attend a City Council meeting are only 82 percent as high as the odds for lower income residents; and the odds that middle-income residents attend a City Council meeting are only 82 percent as high as the odds for lower-income residents; and so on. This relationship is generalizable to the sample population, along with nine other significant relationships concerning income.

For two activities – attending community-related meetings and donating money toward community projects – lower income respondents are less coproducive. Since lower income respondents have less financial resources than their more affluent peers, their lower level of engagement in donating money toward community projects can be
<table>
<thead>
<tr>
<th>Table 4.6 Demographic Characteristics of Coproducers (%)</th>
<th>PLAN</th>
<th>IMPLEMENT</th>
<th>MONITOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COLLECTIVE</td>
<td>INDIVIDUAL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City Mtg</td>
<td>NPU Mtg</td>
<td>Ngbhd Mtg</td>
</tr>
<tr>
<td>Male</td>
<td>58</td>
<td>81</td>
<td>82</td>
</tr>
<tr>
<td>Female</td>
<td>45</td>
<td>69</td>
<td>77</td>
</tr>
<tr>
<td>Minority (Black, etc.)</td>
<td>62</td>
<td>88</td>
<td>81</td>
</tr>
<tr>
<td>Non-minority (White)</td>
<td>41</td>
<td>62</td>
<td>78</td>
</tr>
<tr>
<td>$0-$34,999</td>
<td>61</td>
<td>85</td>
<td>75</td>
</tr>
<tr>
<td>$35,000-$54,999</td>
<td>56</td>
<td>81</td>
<td>73</td>
</tr>
<tr>
<td>$55,000-$84,999</td>
<td>45</td>
<td>72</td>
<td>82</td>
</tr>
<tr>
<td>$85,000 or more</td>
<td>46</td>
<td>66</td>
<td>82</td>
</tr>
<tr>
<td>HS diploma or less</td>
<td>67</td>
<td>86</td>
<td>80</td>
</tr>
<tr>
<td>Bachelors or more</td>
<td>48</td>
<td>72</td>
<td>79</td>
</tr>
<tr>
<td>18-24 year olds</td>
<td>42</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>25-34 year olds</td>
<td>32</td>
<td>60</td>
<td>67</td>
</tr>
<tr>
<td>35-44 year olds</td>
<td>40</td>
<td>69</td>
<td>82</td>
</tr>
<tr>
<td>45-54 year olds</td>
<td>55</td>
<td>78</td>
<td>81</td>
</tr>
<tr>
<td>55-64 year olds</td>
<td>66</td>
<td>80</td>
<td>84</td>
</tr>
<tr>
<td>65-74 year olds</td>
<td>64</td>
<td>89</td>
<td>86</td>
</tr>
<tr>
<td>75yrs + year olds</td>
<td>71</td>
<td>97</td>
<td>73</td>
</tr>
<tr>
<td>Children in household</td>
<td>54</td>
<td>77</td>
<td>80</td>
</tr>
<tr>
<td>No child in household</td>
<td>44</td>
<td>68</td>
<td>78</td>
</tr>
<tr>
<td>Home renter</td>
<td>48</td>
<td>66</td>
<td>63</td>
</tr>
<tr>
<td>Homeowner</td>
<td>48</td>
<td>74</td>
<td>82</td>
</tr>
<tr>
<td>Business Owner</td>
<td>61</td>
<td>87</td>
<td>85</td>
</tr>
</tbody>
</table>
intuitively explained – though this relationship is not statistically significant and cannot be generalized to the population.

The income disparity with community-related meeting attendance is statistically significant, and it is through my contextual understanding of the NPU system that the following explanation can be rendered. Recall that each NPU is made up of smaller neighborhoods. Most of these smaller neighborhoods convene their own regular meetings, which their residents can attend in addition to the monthly NPU meeting. For some lower income NPUs that do not have these smaller neighborhood meetings – due to the lack of organizational skills and internal neighborhood resources (Jakobsen, 2012; Mattson, 1986; Percy, 1984, 1987; Peters, 2010; Rosentraub & Warren, 1987; Thomas, 1987) – attending community meetings is not an option for them. As this study indicates though, they surely utilize the NPU system considerably more than the more affluent for their co-planning and collective coproduction needs. Residents in lower income brackets are 1.17 times more likely to attend a community-related meeting than those in a higher income bracket. In other words, a one-unit increase in income decreases the odds of attending a community-related meeting by a factor of 1.17.

Across the board, less educated respondents are more coproductive than more educated respondents; this finding contradicts Hypothesis 10 that educational attainment is positively associated with participation in coproduction. Besides the fact that income and education often go hand in hand, there is possibly another explanation for why these negative relationships exist. As discussed in Section 2.3, coproduction is thought to be especially appealing for low-income communities where their service providers do not have the capacity to effectively or sufficiently provide services (Brudney & England, 1983; Ostrom, 1996; Whitaker, 1980). Consequently, the low-income residents in these communities may have more public service needs than their more affluent and more educated counterparts.
Also recall from Section 2.3 that because of the promise of influence (rather than mere inclusion), Type IV coproduction is believed to attract and sustain participation even among the poorest and most marginalized groups. The opportunity to engage in meaningful and results-centric activities provides further explanation as to why lower income and less educated residents are engaged equally or more than their peers. While some of these bivariate relationships are statistically significant, their impacts are generally weak to moderate.

As expected from Hypothesis 11, older respondents are more coproductive than their younger counterparts, across the board. In several cases (refer to Table 4.4), the youngest age groups have less than half the coproduction levels of the most active age groups in a given category. For example, 8 percent of the 18-24 year olds in this study patrol their neighborhoods, compared to 23 to 39 percent for the other age groups. As another example, the odds of sharing one’s opinion about a community-related policy or project are 48 percent higher for each one-unit increase in the age group variable. In Table 4.4, notice that for nine of the 13 activities, coproduction participation decreases slightly for respondents who are in the 65-74 age group. Interestingly, those in the 75+ age group have the highest rates of participation for City Council and NPU meeting attendance and for sharing positive feedback with service agents.

The data does not support Hypothesis 12 because respondents who have children under age 18 living with them are less likely to coproduce than those without minors. This is the case nearly across the board, though the findings are statistically significant for only four of the 13 activities. The results that are statistically significant at the .01 and .05 levels are attending City Council and NPU meetings, reporting code violations, and filing a complaint through the ACRB. The latter activity is the only statistically significant relationship that supports the hypothesis that residents with minor children are more coproductive. None of the co-implementation activities are statistically significant,
so in the population, the presence of children in households does not seem to make a
difference to residents when it comes to cleaning and patrolling their neighborhoods.

It is interesting to find that business owners are considerably more coproductive
than homeowners. In the questionnaire, respondents could identify themselves as *home renter, homeowner, and/or business owner*, so these designations are not mutually
exclusive (See Figure 2.3). Eight percent of all respondents indicated that they are both
home and business owners, and less than two percent (only 14 respondents) indicated that
they rent the home they live in and own a home or business in Atlanta, Georgia. For this
reason, I used *home renter* as the primary variable in subsequent analyses of this
category, making *homeowner* and *business owner* the reference groups.

As expected, property owners are more likely to coproduce than non-owners.
Hypothesis 13 is supported by the data, as home renters are less likely to coproduce than
both homeowners and business owners. This finding cannot be generalized for City
Council meeting attendance, court hearing attendance, and filing complaints through
ACRB; but for all other activities, the relationship is significant at the .01 or .05 level.

Table 4.7 Bivariate Logistic Models for Control Variables (Odds Ratios)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Female</th>
<th>Minority</th>
<th>Income</th>
<th>Educ</th>
<th>Age</th>
<th>Child in HH</th>
<th>Home Renter</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Mtg</td>
<td>.60***</td>
<td>2.35***</td>
<td>.82***</td>
<td>.65***</td>
<td>1.43***</td>
<td>.69**</td>
<td>0.94</td>
</tr>
<tr>
<td>NPU Mtg</td>
<td>.51***</td>
<td>4.49***</td>
<td>.71***</td>
<td>.61***</td>
<td>1.52***</td>
<td>.61***</td>
<td>.62**</td>
</tr>
<tr>
<td>Comm Mtg</td>
<td>.73*</td>
<td>1.17</td>
<td>1.17**</td>
<td>.96</td>
<td>1.25***</td>
<td>0.89</td>
<td>.38***</td>
</tr>
<tr>
<td>Advise</td>
<td>.73*</td>
<td>1.41**</td>
<td>.98</td>
<td>1.07</td>
<td>1.48***</td>
<td>0.77</td>
<td>.38***</td>
</tr>
<tr>
<td>Donate</td>
<td>1.03</td>
<td>0.97</td>
<td>1.12</td>
<td>0.97</td>
<td>1.05</td>
<td>1.2</td>
<td>.49***</td>
</tr>
<tr>
<td>Clean</td>
<td>.72**</td>
<td>1.17</td>
<td>.84**</td>
<td>.75**</td>
<td>1.11*</td>
<td>0.96</td>
<td>.59**</td>
</tr>
<tr>
<td>Patrol</td>
<td>0.98</td>
<td>1.99***</td>
<td>.89*</td>
<td>.79**</td>
<td>1.13*</td>
<td>0.79</td>
<td>.50**</td>
</tr>
<tr>
<td>Hearings</td>
<td>0.98</td>
<td>1.76***</td>
<td>.77***</td>
<td>.70***</td>
<td>1.37***</td>
<td>0.9</td>
<td>1.06</td>
</tr>
<tr>
<td>Violations</td>
<td>0.85</td>
<td>2.08***</td>
<td>.84***</td>
<td>.83*</td>
<td>1.31***</td>
<td>.70**</td>
<td>.58**</td>
</tr>
<tr>
<td>Suspicions</td>
<td>.66***</td>
<td>1.47**</td>
<td>.97</td>
<td>0.9</td>
<td>1.15***</td>
<td>1.12</td>
<td>.45***</td>
</tr>
<tr>
<td>Malfunctions</td>
<td>0.94</td>
<td>1.55***</td>
<td>.88**</td>
<td>.83*</td>
<td>1.37***</td>
<td>0.81</td>
<td>.40***</td>
</tr>
<tr>
<td>ACRB</td>
<td>0.89</td>
<td>8.55***</td>
<td>.60***</td>
<td>.52***</td>
<td>1.16</td>
<td>2.02**</td>
<td>0.45</td>
</tr>
<tr>
<td>Thank</td>
<td>0.83</td>
<td>1.96***</td>
<td>.90*</td>
<td>0.86</td>
<td>1.37***</td>
<td>0.81</td>
<td>.61**</td>
</tr>
</tbody>
</table>

Note: Gamma coefficients in parentheses; *** p<0.01, ** p<0.05, * p<0.10
4.1.4 Coproduction Motivations

As predicted in Hypothesis 14, coproducers are more likely to be motivated by nonmaterial rewards than by material rewards. Table 4.8 provides descriptive statistics for the eight coproduction motivations examined in this study. The majority of respondents indicated that they coproduced because they felt like they could make a difference (63%); or because they felt like it was their duty (59%); or because coproduction makes them feel connected to their community (58%). While making a difference is the most popular motivation, feeling that coproduction is their duty is the most important motivation, with 35 percent of respondents ranking it first among their top three motivations.

Table 4.8 Prevalence and Importance of Coproduction Motivations (%)

<table>
<thead>
<tr>
<th>Questionnaire Choice</th>
<th>Type of Motivation</th>
<th>Popularity (selected in top 3)</th>
<th>Importance (ranked as #1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make a Difference</td>
<td>Nonmaterial/Self-Efficacy</td>
<td>63</td>
<td>29</td>
</tr>
<tr>
<td>Civic Duty</td>
<td>Nonmaterial/Citizenship</td>
<td>59</td>
<td>35</td>
</tr>
<tr>
<td>Connect with Community</td>
<td>Nonmaterial/Sociality</td>
<td>58</td>
<td>29</td>
</tr>
<tr>
<td>Sense of Purpose/Accomplishment</td>
<td>Nonmaterial/Self-Efficacy</td>
<td>39</td>
<td>12</td>
</tr>
<tr>
<td>Service Quality</td>
<td>Material</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>Neighbor Encouragement</td>
<td>Nonmaterial/Sociality</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>Service Provision/Quantity</td>
<td>Material</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Government Encouragement</td>
<td>Nonmaterial/Citizenship</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

With only 10 and 27 percent of respondents selecting quantity or quality of local public services as their top three coproduction motivations, respectively, material rewards are not popular determinants of coproduction behavior. The bivariate odds ratios in Table 4.9 confirm these results. However, the bivariate findings for these explanatory variables are not very reliable or meaningful because they ignore other important predictors and controls. Multivariate regressions are better able to assess the relationship
between each predictor and participation in each coproduction activity. As such, bivariate and multivariate results may not always agree.

Table 4.9 Bivariate Logistic Models for Motivation Variables (Odds Ratios)

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>Quality</th>
<th>Purpose</th>
<th>Difference</th>
<th>Duty</th>
<th>Govt Encour</th>
<th>Neighbor Encour</th>
<th>Connect w/ Comm</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Mtg</td>
<td>0.50***</td>
<td>0.75*</td>
<td>1.54***</td>
<td>1.23</td>
<td>1.53***</td>
<td>3.00***</td>
<td>0.76</td>
<td>0.64***</td>
</tr>
<tr>
<td>NPU Mtg</td>
<td>0.67</td>
<td>0.66**</td>
<td>1.37*</td>
<td>1.19</td>
<td>1.55***</td>
<td>1.46</td>
<td>0.84</td>
<td>0.88</td>
</tr>
<tr>
<td>Comm Mtg</td>
<td>0.82</td>
<td>0.90</td>
<td>0.97</td>
<td>1.24</td>
<td>1.45***</td>
<td>2.24</td>
<td>1.41</td>
<td>1.16</td>
</tr>
<tr>
<td>Advise</td>
<td>0.98</td>
<td>1.78***</td>
<td>0.96</td>
<td>1.45**</td>
<td>2.10***</td>
<td>2.16</td>
<td>0.66**</td>
<td>0.60***</td>
</tr>
<tr>
<td>Finance</td>
<td>0.76</td>
<td>0.99</td>
<td>1.41*</td>
<td>1.63***</td>
<td>1.31</td>
<td>1.36</td>
<td>0.99</td>
<td>1.18</td>
</tr>
<tr>
<td>Clean</td>
<td>1.46</td>
<td>0.97</td>
<td>2.00***</td>
<td>1.45**</td>
<td>1.40**</td>
<td>0.92</td>
<td>0.82</td>
<td>1.10</td>
</tr>
<tr>
<td>Patrol</td>
<td>0.76</td>
<td>0.96</td>
<td>1.21</td>
<td>1.11</td>
<td>1.19</td>
<td>1.87*</td>
<td>1.00</td>
<td>1.05</td>
</tr>
<tr>
<td>Hearings</td>
<td>1.04</td>
<td>0.85</td>
<td>1.28</td>
<td>1.31</td>
<td>1.15</td>
<td>3.28***</td>
<td>0.88</td>
<td>0.64***</td>
</tr>
<tr>
<td>Violations</td>
<td>1.44</td>
<td>1.28</td>
<td>1.09</td>
<td>1.34*</td>
<td>1.71***</td>
<td>2.54**</td>
<td>0.60***</td>
<td>0.65***</td>
</tr>
<tr>
<td>Suspicions</td>
<td>1.16</td>
<td>0.90</td>
<td>0.94</td>
<td>1.34*</td>
<td>1.98***</td>
<td>3.87**</td>
<td>0.78</td>
<td>0.78</td>
</tr>
<tr>
<td>Malfunctions</td>
<td>1.43</td>
<td>1.19</td>
<td>1.07</td>
<td>1.32*</td>
<td>1.52***</td>
<td>4.26***</td>
<td>0.69**</td>
<td>0.89</td>
</tr>
<tr>
<td>ACRB</td>
<td>0.82</td>
<td>1.08</td>
<td>0.85</td>
<td>0.63</td>
<td>1.58</td>
<td>3.74**</td>
<td>1.85*</td>
<td>0.72</td>
</tr>
<tr>
<td>Thank</td>
<td>0.88</td>
<td>0.82</td>
<td>1.27</td>
<td>1.52***</td>
<td>1.43**</td>
<td>3.59***</td>
<td>0.71*</td>
<td>0.76*</td>
</tr>
</tbody>
</table>

Note: Gamma coefficients in parentheses; *** p<0.01, ** p<0.05, * p<0.10

Highly collinear variables contain highly redundant information that can be misinterpreted. With very weak and not significant correlations coefficients of -0.01 and 0.04, the self-efficacy variables (sense of purpose and make a difference) and the citizenship variables (civic duty and government-encouraged) will not pose collinearity problems when included together in a multivariate regression. The -0.06 correlation between the sociality variables (neighbor-encouraged and connect with neighbors) is also very weak but significant, indicating that there is no collinearity associated with those variables. As shown in Table 4.10, several of the motivation variables have significant weak to moderate relationships with one another. For example, as quality motivation increases by one unit, all other motivations decrease by -0.02 to -0.23 units.

The lack of multicollinearity among the motivation variables was confirmed by conducting a factor analysis. If collinearity was in fact a problem, the factor analysis
would reveal which variables can be grouped as one indicator variable (an alternative to deciding which variable to omit). I hoped that the factor analysis would either suggest that the eight motivation variables reflect five underlying factors (sociality, self-efficacy, citizenship, quality, and quantity), or at the very least reflect two (material and nonmaterial motivations). The results did not justify combining these eight variables into a reduced set; therefore in all subsequent analyses, these variables are run individually.

Table 4.10 Strength/Direction of Relationships between Coproduction Motivations

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>Quality</th>
<th>Purpose</th>
<th>Difference</th>
<th>Duty</th>
<th>GovtEnc</th>
<th>NgbrEnc</th>
<th>Connect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>1</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Quality</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td></td>
<td>-.15***</td>
<td>-.23***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>-.15***</td>
<td>-.07**</td>
<td>-.01</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic Duty</td>
<td></td>
<td>-.09**</td>
<td>-.12***</td>
<td>-.15***</td>
<td>-.11***</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Govt Encour</td>
<td></td>
<td>.02</td>
<td>-.02</td>
<td>-.02</td>
<td>-.07*</td>
<td>.04</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Ngbr Encour</td>
<td></td>
<td>-.05</td>
<td>-.09**</td>
<td>-.09**</td>
<td>-.20***</td>
<td>-.09**</td>
<td>.07*</td>
<td>1</td>
</tr>
<tr>
<td>Connect</td>
<td></td>
<td>-.22***</td>
<td>-.23***</td>
<td>.05</td>
<td>.02</td>
<td>-.19***</td>
<td>-.15***</td>
<td>-.06*</td>
</tr>
</tbody>
</table>

Note: *** p<0.01, ** p<0.05, * p<0.10

4.2 Inferential Statistics

In the three subsections that follow, I discuss the full multivariate logistic regression models for the 13 coproduction activities in this study. Tables 4.11, 4.12 and 4.13, located at the end of each subsection, show the results of these models for main effects. Each model regresses participation in a coproduction activity on the seven demographic variables and eight motivation variables, in order to test the relationship between a particular coproducer characteristic and coproduction participation, while holding all other variables constant at their reference group values. With these controls in place, the findings are more in line with the study hypotheses than the bivariate findings suggested. Specifically, 10 of the 11 motivation hypotheses are supported in the multivariate models. Overall, self-efficacy and citizenship motivations have the greatest impact on participation in coproduction.
4.2.1 Co-Planning

Demographic Associations

The demographic results are highly significant in the co-planning models. At the highest level of significance (p<0.01), females are less than half as likely as comparable males to attend City Council meetings (.46) and NPU meetings (.39). Minorities are almost twice as likely (1.63) as non-minorities to attend City Council meetings, and almost three times (2.95) as likely as non-minorities to attend NPU meetings, holding all other variables constant. Gender and race do not play significant roles in the other three co-planning activities. Although the literature suggests that women are more involved in their communities due to gender role differences (Conway & Hatchen, 2005; Feldman & Stall, 2004), one possible explanation for less female co-planners is that these gender roles (e.g., child rearing and housekeeping) may actually prevent them from attending the NPU and City Council meetings that take place on weekday evenings.

I expected coproduction to narrow and even eliminate the historical racial disparity in citizen participation, and to a large degree, this seems to be the case. Findings suggest that there are no statistically significant differences between minorities and non-minorities for participation in individual co-planning or attending community-related meetings. Moreover, minorities are substantially and significantly more engaged in City Council and NPU meetings, to the point that the minority variable has the strongest impact in the models for these two activities. Recall that through (Type IV) coproduction, the promise of influence (rather than mere inclusion) helps galvanize citizens, including traditionally marginalized groups who tend not to participate in public affairs (Birchall & Simmons, 2004; Bovaird, 2007; Gustafson & Driver, 2005; Joshi & Moore, 2004; Sullivan et al, 2004). These groups include the poor, ethnic minorities, victims of discrimination, and the physically disabled (Chavis & Wandersman, 1990).
The results for income and education are mixed but nonetheless consistent with logic and the literature. Findings indicate that higher income residents are 20 percent less likely to attend NPU meetings and 17 percent more likely to attend community-related meetings, holding all other variables constant. As discussed in Section 4.1.3, this is likely because residents in lower-income NPUs may not have community associations for the lack of organizational skills and internal neighborhood resources (Jakobsen, 2012; Mattson, 1986; Percy, 1984, 1987; Peters, 2010; Rosentraub & Warren, 1987; Thomas, 1987). Additionally, the more educated are less likely to attend City Council meetings but more likely to contact their elected officials directly. This finding supports previous assertions that political or bureaucratic knowledge increases one’s likelihood to initiate contacts (Thomas & Melkers, 1999). Formal education may enhance one’s ability to navigate through the public sector, as well as their political efficacy when navigating (Thomas & Melkers, 1999). In all other co-planning activities, income and education are not associated with participation. In other words, there are no statistically significant differences between people of different income and education levels, again supporting the literature that refers to Type IV coproduction as an equalizer.

I expected age, homeownership, and having dependent children in the household to affect participation in coproduction. Findings indicate that older residents are more likely to co-plan than younger adults, although age is not a significant factor for donating money for a community-related event, facility, or project. A one-unit increase in the age variable increases the odds of co-planning by 20 to 40 percent, holding all other variables constant. Another form of “stakeholding,” having children in the household, is not associated with participation in any co-planning activity. Finally, those who do not own property in their community are roughly half as likely to co-plan than property owners, which confirms the importance and impact of stakeholding (Thomas & Melkers, 1999). One’s owner/renter status is the only demographic variable of significance for donating money; interestingly, income and education (and the other variables) do not play a role.
From the multivariate results, one can conclude that a 35 year old minority male property owner, who has a low-income salary and a high school diploma is more likely to participate in co-planning than a 34 year old minority male with similar characteristics; a 35 year old White male with similar characteristics; a 35 year old minority female with similar characteristics; a 35 year old minority male home renter with similar characteristics; a 35 year old, minority male with similar characteristics but lower-middle income; and a 35 year old minority male with similar characteristics but a college degree. The demographic variables with the strongest impact on co-planning participation are race, gender, and owner/renter status.

Motivation Predictors

Co-planning activities were expected to have the following predictors: service quantity need, service quality need, self-efficacy, and sociality. Findings indicate that the service quantity motivation is significant for only one activity – attending City Council meetings. However, this motivation variable behaves more like a demotivator, as attending City Council meetings is negatively influenced by service quantity need. As service quantity motivation increases by one unit, the odds of attending City Council meetings decrease by 34 percent, which does not support Hypothesis 18. Hypothesis 19 is supported by the data in that the service quality motivation increases the odds of contacting an elected official by 58 percent. No other co-planning activity is impacted by the desire for service quality improvements.

Unlike the material motivations, self-efficacy contributes to participation in all five co-planning activities. With an average increase in the odds of co-planning participation of 33 percent, sense of purpose motivates all except community-related meeting attendance. The make a difference motivation increases the odds of participating in all five co-planning activities by an average of 28 percent. Hypothesis 20 is supported by these positive and significant odds ratios.
The sociality motivation – citizens’ desire to be positively regarded by their neighbors or their desire to connect with their neighbors – was expected to positively influence co-planning, and it does. However, the results are mixed. Hypothesis 24 is supported in that the odds of attending a community-related meeting increases by 18 percent as the connecting with neighbors motivation increases by one unit and by 32 percent as the neighbor encouragement motivation increases by one unit. It is further supported in that the odds of attending an NPU meeting increases by 29 percent as the connecting with neighbors motivation increases by one unit. However, an increase in the neighbor encouragement motivation decreases the odds of attending a City Council meeting by 19 percent.

While sociality plays a role in all three collective co-planning activities, it does not impact one’s participation in individual co-planning activities. This lack of significance of the sociality motivations for Advise and Donate provides support that these activities are appropriately categorized as individual coproduction. Additionally, might reasonably expect collective coproduction to have its greatest impact from the sociality motivations; that is, those who seek to socialize with their neighbors engage in collective, not individual, coproduction. However, this was only true for attending community-related meetings, where neighbor encouragement was the strongest motivation for this activity. Furthermore, those with sociality needs are more likely to attend NPU and community-related meetings and less likely to attend City Council meetings. This is a logical finding since the former two activities are neighborhood-based, while the latter requires residents to interact with people outside of their neighborhood – the general public.

Citizenship was not hypothesized to influence co-planning; but it significantly impacts all co-planning activities. The civic duty motivation influenced participation in all but one co-planning activity (attending City Council meetings). Conversely, the other citizenship motivation – government encouragement – influenced participation in only
one co-planning activity (attending City Council meetings). In fact, of the eight motivation variables, one’s decision to attend City Council meetings is most impacted by government encouragement, followed by both self-efficacy motivations. One might conclude that residents who are motivated by government encouragement are more likely to participate in City Council meetings than those motivated by any other factor. One might also conclude that for City Council meetings and other similar coproduction activities that are organized and administrated by local governments, public agencies must deploy recruiting measures to make residents more aware of those opportunities, and to ultimately get them involved.

Likewise, attending NPU meetings is most strongly related to the minority variable, by far. Its greatest motivational impact is from both self-efficacy motivations, closely followed by one’s desire to connect with neighbors and civic duty, respectively. Self-efficacy has less impact on attending community-related meetings, as sociality motivations plays a bigger role. Neighbor encouragement is the strongest predictor of this activity, followed by civic duty, the desire to make a difference, and then the desire to connect with neighbors, respectively. The strongest demographic association for attending community-related meetings is owner/renter status, whereby home renters are much less likely to participate in this activity.

This homereenter variable also has the strongest association for the two individual co-planning activities (contacting elected officials and donating money for community-related project). Besides this commonality, the predictors for the individual co-planning activities seem to run counter to one another. The strongest predictor for contacting elected officials is service quality need, followed by civic duty, then both self-efficacy (make a difference and sense of purpose, respectively). Conversely, for the donating money activity, the strongest predictor is sense of purpose, followed by making a difference, then civic duty. No material need seems to motivate this activity.
Participating in City Council meetings is also less likely to occur among those with service quantity needs. Additionally, this need to retain or create a public service does not impact one’s participation in any other co-planning activity. These findings seem counterintuitive when recalling that the planning stage is where the original groundwork is laid for the public service whereby ideas, designs, and financing are generated toward the development of a new public service. The desire to improve the quality of one’s public service does however motivate citizens to contact their elected officials about a public service or policy that affects their community (Advise). Service quality needs do not motivate any other co-planning activity.

Table 4.11 Co-Planning Full Logistic Models (Odds Ratios)

<table>
<thead>
<tr>
<th></th>
<th>Collective</th>
<th></th>
<th></th>
<th>Individual</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CityMtg</td>
<td>NPUMtg</td>
<td>CommMtg</td>
<td>Advise</td>
<td>Donate</td>
<td></td>
</tr>
<tr>
<td>Service Quantity</td>
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<td>1.01</td>
<td>1.03</td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>Service Quality</td>
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<td>1.07</td>
<td>1.58***</td>
<td>1.16</td>
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<td>Sense of Purpose</td>
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<td>1.33**</td>
<td>1.08</td>
<td>1.27**</td>
<td>1.37***</td>
<td></td>
</tr>
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<td>Make a Difference</td>
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<td>1.43***</td>
<td>1.23**</td>
<td>1.31***</td>
<td>1.32***</td>
<td></td>
</tr>
<tr>
<td>Civic Duty</td>
<td>1.11</td>
<td>1.26***</td>
<td>1.24**</td>
<td>1.36***</td>
<td>1.20**</td>
<td></td>
</tr>
<tr>
<td>Government-Encouraged</td>
<td>1.59*</td>
<td>1.26</td>
<td>1.68</td>
<td>1.20</td>
<td>1.07</td>
<td></td>
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<td>Neighbor-Encouraged</td>
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<td>1.32*</td>
<td>1.02</td>
<td>1.10</td>
<td></td>
</tr>
<tr>
<td>Connect with Neighbors</td>
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<td>1.29***</td>
<td>1.18*</td>
<td>0.95</td>
<td>1.14</td>
<td></td>
</tr>
<tr>
<td>Female</td>
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<td>0.39***</td>
<td>0.78</td>
<td>0.72*</td>
<td>1.13</td>
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<td>Minority</td>
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<td>1.17</td>
<td>1.02</td>
<td>0.87</td>
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</tr>
<tr>
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<td>1.06</td>
<td></td>
</tr>
<tr>
<td>Education</td>
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<td>0.82</td>
<td>0.83</td>
<td>1.27*</td>
<td>0.88</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1.39***</td>
<td>1.31***</td>
<td>1.17**</td>
<td>1.38***</td>
<td>1.04</td>
<td></td>
</tr>
<tr>
<td>Child in HH</td>
<td>0.91</td>
<td>0.78</td>
<td>0.92</td>
<td>0.94</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>Home Renter</td>
<td>0.99</td>
<td>0.51**</td>
<td>0.44***</td>
<td>0.42***</td>
<td>0.51**</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
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<td>1.01</td>
<td>1.31</td>
<td>0.35*</td>
<td>1.19</td>
<td></td>
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<td>699</td>
<td>688</td>
<td>696</td>
<td>687</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.14</td>
<td>0.18</td>
<td>0.07</td>
<td>0.13</td>
<td>0.04</td>
<td></td>
</tr>
</tbody>
</table>

Note: All standard errors were less than 1; *** p<0.01, ** p<0.05, * p<0.10
4.2.2 Co-Implementation

Demographic Associations

The two co-implementation activities could not be more different from one another. In fact, the only similarity between them is the fact that property owners and less-educated residents participate more in both activities. Race, educational attainment, and owner/renter status are the only significant associations for patrolling, with race having the strongest impact. Minorities are nearly twice (1.83) as likely to patrol as comparable non-minorities. A one-unit increase in education decreases the odds of co-implementing by 21 percent, holding all other variables constant. And renters are only about one-third (0.31) as likely to co-implement as homeowners and business owners with similar characteristics.

Income, education, and owner/renter status are associated with participating in neighborhood cleanups. Of the demographic variables, owner/renter status has the strongest impact on the neighborhood cleanup prediction model, whereby home renters are almost half (0.46) as likely to participate in cleanups as comparable home and business owners. Holding all other variables constant, as residents’ income group and educational attainment increases by one-unit, their odds of participating in cleanups decreases by 20 and 25 percent, respectively. Gender, age, and having children in the household play no role in either co-implementation activity.

From the multivariate results, one can conclude that – regardless of gender, race, age, and whether they have children – property owners with low-income salary and a high school diploma are more likely to clean their community than home renters with the same salary and educational attainment; property owners with lower-middle income salary and same level of education; property owners with lower income salary and a college degree. One’s owner/renter status has the strongest impact on whether they participate in community cleaning activities.
The multivariate results also indicate that – regardless of gender, income, age, and whether they have children – a male property owner with a high school diploma is more likely to patrol his neighborhood than a female property owner with the same level of education; a male home renter with the same level of education; and a male property owner with a college degree. Race has the strongest impact on whether residents patrol their neighborhood.

Motivation Predictors

As aforementioned, the co-implementation activities are quite different from one another. Study findings indicate that neighborhood cleanups are influenced by all of the coproduction motivations, but patrolling one’s neighborhood is not influenced by any.

Co-implementation activities were expected to have the same predictors as co-planning activities: service quantity need, service quality need, self-efficacy, and sociality. Hypothesis 15 and 16 are supported by the positive and significant odds ratios on the neighborhood cleanup variable. For material motivations, the odds of participating in neighborhood cleanups increase by 29 percent for the quantity motivation and by 33 percent for the quality motivation. For self-efficacy motivation, the odds of participating in cleanups increase by 79 percent for the sense of purpose motivation and by 31 percent for make a difference motivation. These findings support Hypothesis 21. Hypothesis 25 is also supported in that the connecting with neighbors motivation increases the odds of participating in a neighborhood cleanup by 31 percent. As with co-planning, citizenship was not expected to influence co-implementation; however the civic duty motivation significantly impacts the neighborhood cleanup variable, increasing the odds of participating by 35 percent. This citizenship motivation has the second highest impact on this activity (after sense of purpose).

This study was not able to identify what motivates residents to patrol their neighborhood. All that could be determined is that minorities are far more likely to do so
than non-minorities; that owner/renter status has the second strongest association with this activity, followed by education.

As with co-planning, self-efficacy and citizenship are strong predictors for cleaning the community. The *sense of purpose* motivation has more than two times the impact of any of the other motivations for cleaning the community. The desire to connect with neighbors is the key sociality motivation for this activity, and probably for good reason. Neighborhood cleanups are oftentimes undertaken collectively rather than individually. Interestingly, both material motivations influence participation in neighborhood cleanups. This finding may imply that the local government may not be providing such services in the communities of those who engage in these cleanup activities. These coproducers may be engaging in this activity in order to improve the quality (appearance) of their neighborhoods and to receive the service altogether.

Table 4.12 Co-Implementation Full Logistic Models (Odds Ratios)

<table>
<thead>
<tr>
<th></th>
<th>Clean</th>
<th>Patrol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quantity</td>
<td>1.29*</td>
<td>0.91</td>
</tr>
<tr>
<td>Service Quality</td>
<td>1.33***</td>
<td>1.10</td>
</tr>
<tr>
<td>Sense of Purpose</td>
<td>1.79***</td>
<td>1.09</td>
</tr>
<tr>
<td>Make a Difference</td>
<td>1.31***</td>
<td>1.05</td>
</tr>
<tr>
<td>Civic Duty</td>
<td>1.35***</td>
<td>1.01</td>
</tr>
<tr>
<td>Government-Encouraged</td>
<td>0.93</td>
<td>1.01</td>
</tr>
<tr>
<td>Neighbor-Encouraged</td>
<td>1.19</td>
<td>1.01</td>
</tr>
<tr>
<td>Connect with Neighbors</td>
<td>1.31***</td>
<td>1.02</td>
</tr>
<tr>
<td>Female</td>
<td>0.75</td>
<td>0.91</td>
</tr>
<tr>
<td>Minority</td>
<td>0.79</td>
<td>1.83***</td>
</tr>
<tr>
<td>Income</td>
<td>0.80**</td>
<td>0.92</td>
</tr>
<tr>
<td>Education</td>
<td>0.75*</td>
<td>0.79*</td>
</tr>
<tr>
<td>Age</td>
<td>1.05</td>
<td>0.99</td>
</tr>
<tr>
<td>Child in HH</td>
<td>1.14</td>
<td>0.77</td>
</tr>
<tr>
<td>Home Renter</td>
<td>0.46***</td>
<td>0.31***</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.89</td>
<td>0.62</td>
</tr>
</tbody>
</table>

N       694     691  
R²       0.08   0.05

Note: All standard errors were less than 1; *** p<0.01, ** p<0.05, * p<0.10
4.2.3 Co-Monitoring

Demographic Associations

Females are less likely to file a complaint against their service agent via the ACRB (.41), report suspicious activity (.73), or contact their service agent to share positive feedback (.74). The latter two activities should be interpreted with caution, as their results are weakly significant at the .10 level. Minorities are almost 50 percent more likely to report code violations they detect in their community and share positive feedback with the service agent, and nearly six times as likely to file a complaint as non-minorities. Because of the high standard error for the latter result, this finding should be considered with caution.

Lower-income residents are 13 to 39 percent more likely to participate in four of the six co-monitoring activities; the other two activities are not influenced by income. Only the ACRB activity is influenced by education, whereby less-educated people participate. Two activities are not significantly associated with age: reporting suspicious activities and filing a complaint against a service agent. For the other activities, age has a positive association, such that older residents participate between 16 to 28 percent more than their younger counterparts. Home renters are considerably less likely (between 46 and 77 percent) to co-monitor than those with stakeholder/ownership status.

Finally, having children living in a household is associated with only one of 13 activities, ACRB, such that those with children in the household are 3.29 times as likely to complain about their service agent as those without children in their household. It is important to note here that two of the variables regressed on ACRB have standard errors greater than 1 (SE = 3.08 for minority; SE = 1.42 for Child in HH). This is an indication that the study estimates are probably much higher than the actual population parameter for the minority and having children in household variables. The demographic variables with the strongest impact on co-monitoring participation are race for reporting code

92
violations, ACRB, and sharing positive feedback; age for attending court hearings; and owner/renter status for reporting suspicious behavior and service malfunctions.

**Motivation Predictors**

The co-monitoring stage is where citizens, as the service users, oversee and evaluate the quality of their public services. It is therefore not surprising to see that more co-monitoring activities are influenced by the service quality motivation than co-planning and co-implementation activities. Service quality, self-efficacy, and citizenship were the expected predictors for participation in co-monitoring. Service quantity was not expected to influence co-monitoring, yet the desire to retain or create a public service positively and significantly increases the odds of reporting code violations by 32 percent and reporting service malfunctions by 36 percent. These same activities are also the only two activities influenced by the service quality motivation, in support of Hypothesis 17. Service quality motivation increases the odds of participating in these two activities by 24 percent and 45 percent, respectively. The remaining four co-monitoring activities are not stimulated by material needs.

As expected (Hypothesis 22), self-efficacy positively impacts co-monitoring activities, with impact ranging from 18 to 36 percent. Only one co-monitoring activity is not motivated by self-efficacy – filing a complaint against a service agent via the Atlanta Citizen Review Board (ACRB). While thanking service agents or giving them positive feedback had no significant citizenship motivation, the other activities generated the expected results (Hypothesis 23) that the citizenship motivation positively influences participation in co-monitoring. Civic duty motivation impacts three co-monitoring activities – reporting code violations, suspicious activity, and service malfunctions – by 26, 32, and 27 percent respectively. Attending the court hearing of someone accused of committing a crime in the community and filing a complaint against a service agent via the ACRB are impacted by the government encouragement motivation at 49 and 79
percent, respectively. Like with City Council meeting attendance, these co-monitoring results show once more that coproduction activities that are organized and administrated by local governments are more likely to be motivated by government encouragement activities. Court hearings, the ACRB, and City Council meetings are similar to one another in this regard.

Finally, although sociality was not hypothesized to influence co-monitoring, the desire to connect with neighbors is a demotivating factor for attending court hearings, as it decreases the odds of participating in this activity by 13 percent. No other co-monitoring activity is motivated by the desire to socialize or be regarded by one’s neighbors – and understandably so, as these activities are likely undertaken individually. Similar to the logic for co-planning activities, neighborhood-specific activities and collective coproduction activities are more likely to appeal to residents seeking interactions and connections with their neighbors. As such, these co-monitoring activities, which are undertaken individually, do not necessarily require neighbor interactions. Furthermore, like attending City Council meetings, attending court hearings of someone accused of a crime in the community is negatively impacted by the sociality motivation. As asserted earlier, this type of activity entails interacting with people outside of the community and thus sociality – one’s desire to connect with their neighbors – would understandably not play a positive role.

As with the other two stages, the co-monitoring stage has strong self-efficacy and citizenship predictors. Government encouragement is the strongest and sole predictor for filing a complaint through ACRB. It is also the strongest predictor for attending court hearings, followed by self-efficacy motivations. The self-efficacy desire to make a difference is the strongest predictor for both reporting suspicious behavior and sharing positive feedback with public service agents. For reporting suspicious, civic duty was the second highest motivation; a classic example of civic duty in play may be calling 911 when a crime, health emergency, or fire is suspected. The service quantity motivation is
the strongest predictor for reporting code violations, followed by self-efficacy motivation to make a difference, civic duty motivation, and then service quality needs. Conversely, the quality motivation is the strongest predictor for reporting service malfunctions, followed by service quantity need, and then self-efficacy and civic duty motivations. Interestingly, the two co-monitoring activities that have material motivations are motivated by both service needs (quality and quantity), as if to suggest that in the mind of someone who engages in these co-monitoring actions, quality and quantity needs are closely related to one another. It is uncanny how these statistical findings are also quite intuitive.

Table 4.13 Co-Monitoring Full Logistic Models (Odds Ratios)

<table>
<thead>
<tr>
<th></th>
<th>Hearing</th>
<th>Violations</th>
<th>Suspicions</th>
<th>MalFxns</th>
<th>ACRB</th>
<th>Thank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quantity</td>
<td>1.17</td>
<td>1.32**</td>
<td>1.19</td>
<td>1.36**</td>
<td>0.51</td>
<td>1.07</td>
</tr>
<tr>
<td>Service Quality</td>
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<td>1.09</td>
<td>1.45***</td>
<td>1.08</td>
<td>1.00</td>
</tr>
<tr>
<td>Sense of Purpose</td>
<td>1.32***</td>
<td>1.18**</td>
<td>1.12</td>
<td>1.26**</td>
<td>0.85</td>
<td>1.24**</td>
</tr>
<tr>
<td>Make Difference</td>
<td>1.21**</td>
<td>1.27***</td>
<td>1.36***</td>
<td>1.25***</td>
<td>1.20</td>
<td>1.26***</td>
</tr>
<tr>
<td>Civic Duty</td>
<td>1.04</td>
<td>1.26***</td>
<td>1.32***</td>
<td>1.27***</td>
<td>1.04</td>
<td>1.11</td>
</tr>
<tr>
<td>Govt-Encour</td>
<td>1.49**</td>
<td>1.10</td>
<td>1.28</td>
<td>1.46</td>
<td>1.79**</td>
<td>1.35</td>
</tr>
<tr>
<td>Ngbr-Encour</td>
<td>1.09</td>
<td>0.90</td>
<td>0.93</td>
<td>1.00</td>
<td>1.14</td>
<td>0.92</td>
</tr>
<tr>
<td>Connect w/ Ngbr</td>
<td>0.87*</td>
<td>0.92</td>
<td>0.98</td>
<td>1.10</td>
<td>0.99</td>
<td>0.90</td>
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<td>0.73*</td>
<td>1.00</td>
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<td>0.74*</td>
</tr>
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<td>1.02</td>
<td>5.79***</td>
<td>1.47**</td>
</tr>
<tr>
<td>Income</td>
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<td>0.87*</td>
<td>0.78</td>
<td>0.84**</td>
<td>0.61***</td>
<td>0.94</td>
</tr>
<tr>
<td>Education</td>
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<td>0.94</td>
<td>0.87</td>
<td>0.91</td>
<td>0.62*</td>
<td>1.01</td>
</tr>
<tr>
<td>Age</td>
<td>1.28***</td>
<td>1.16**</td>
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<td>1.25***</td>
<td>0.96</td>
<td>1.25***</td>
</tr>
<tr>
<td>Child in HH</td>
<td>1.23</td>
<td>0.82</td>
<td>1.36</td>
<td>1.09</td>
<td>3.29***</td>
<td>0.98</td>
</tr>
<tr>
<td>Home Renter</td>
<td>0.96</td>
<td>0.54**</td>
<td>0.50***</td>
<td>0.40***</td>
<td>0.29*</td>
<td>0.69</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.20***</td>
<td>0.56</td>
<td>1.32</td>
<td>0.52</td>
<td>0.10**</td>
<td>0.36**</td>
</tr>
</tbody>
</table>

N: 695, 697, 696, 696, 691, 689
R²: 0.09, 0.09, 0.07, 0.08, 0.22, 0.08

Note: All standard errors were less than 1 except **Bold; ***p<0.01, **p<0.05, *p<0.10
4.2.4 Other Models

Model 2: Full Model with Mediating Variable

In a second set of full multivariate logistic models, I ran the NPU meeting attendance variable as an independent variable. See Table 4.13. Given that NPU members were the primary subject of this study, I wanted to understand whether their attendance at NPU meetings influences their participation in other coproduction activities. The data substantiated this assumption. NPU meeting attendance significantly contributes to participation in all other coproduction activities. This mediating variable even caused the explanatory power (Pseudo R²) of the models to increase by as much as 0.10; that is, NPU meetings helped explain up to 10 percent of the variation in coproduction participation.

NPU meeting attendance seems to explain why there is a relationship between some demographic variables and the dependent variables. For example, the relationships between minority and CityMtg and between education and CityMtg disappear when the mediator NPUMtg is included. Having previously observed that minorities and less-educated residents attend NPU meetings more than their counterparts, by removing the effect of this mediator, the data reveal that race and education are not directly associated with City Council meeting attendance after all. This similar mediator effect is present for 12 several other relationships: female and Advise, female and Suspicions, female and Thank, minority and Violations, minority and Thank, income and Violations, education and Clean, education and Patrol, education and ACRB, age and CommMtg, age and Violations, and homerenter and ACRB.

Conversely, the inclusion of NPUMtg causes three relationships to sprout. The relationship between race and donating money and between race and neighborhood cleanups becomes significant, whereby minorities participate in these activities less than non-minorities. These are the only findings that indicate lower participate rates for
minorities. Additionally, having minor children in the household increases the odds of reporting suspicious activities in the community when NPU meeting attendance is controlled for.

While the overall results do not change very much, some of the coproduction predictors were affected by the mediating variable. Recall that the sociality motivation was found to have the strongest impact on NPU meeting attendance (see Table 4.9). With the inclusion of this mediating variable, at least one of the sociality indicators no longer impacts participation in City Council meetings, community-related meetings, and reporting code violations. Likewise, the impact of the citizenship motivation disappears for City Council meeting attendance, civic duty no longer motivates court hearing attendance, and the desire to connect with neighbors does not affect community-related meeting attendance. However, the mediating variable generates a weak relationship between the desire to connect with neighbors and thanking service agents. In sum, this second full model with mediating effects was worthwhile though not very informative.

Model 3: Hierarchical Stepwise Model

I conducted stepwise regressions to determine whether each form of coproduction could be classified as having a unique set of predictors. A stepwise model would allow me to identify the subset of independent variables with the strongest relationship with each dependent variable. Because the basic stepwise regression models were dropping important demographic variables, I resolved to use hierarchical stepwise modeling. In the first of two stages, I regressed each dependent variable on all the demographic variables, in order to determine the significant controls for each particular activity.

In addition to the demographic results discussion in Section 4.1.3, the correlation matrix shown in Table 4.12 identifies which demographic variables are closely associated with one another. Nearly all of these associations are generalizable to the sample population, with the strongest associations being between minority and income (-0.37)
and between income and education (0.31) – as expected. The former indicates that minorities have lower mean income than non-minorities; the latter indicates that as the education variable increases by one unit, the income variable rises by 0.31. Both of these associations are of moderate strength.

All associations that had correlation coefficients greater than or equal to 0.20 were tested in this first stage of all 13 hierarchical stepwise models. I was able to test for any significant interactions between the control variables, as well as any curvilinear relationships that may exist with income (as predicted in Hypothesis 8), education, or age. It was interesting to discover that age had a negative curvilinear relationship in 6 of the 13 models, meaning that middle-aged residents are more likely to coproduce than younger and older than them. It was also interesting to uncover some of the interactions that exist between race, income, and education.

<table>
<thead>
<tr>
<th>Table 4.14 Strength/Direction of Relationships between Control Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Minority</td>
</tr>
<tr>
<td>Income</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Child in HH</td>
</tr>
<tr>
<td>Home Renter</td>
</tr>
</tbody>
</table>

Note: *** p<0.01, ** p<0.05, * p<0.10

In the second stage, I conducted a stepwise of all eight explanatory variables, which included the significant controls that survived the first stage. The results of the hierarchical stepwise models (HSMs) are shown in Table 4.14. All variables in these models are significant at the 0.01, 0.05, or 0.10 level, as denoted in the table. By definition, Models 1 and 2 include more variables than the HSMs in Model 3. Therefore Model 3 has lower explanatory power than the others that include even the variables that
are not significant. With the exception of ACRB, the changes in explanatory power between the Model 1 and Model 2 were less than a one percentage point difference.

From this hierarchical stepwise exercise, I developed the following conclusions. While the results are varied, most activities (regardless of their production stage) are motivated by some form of self-efficacy and citizenship. I also determined that the each form of coproduction cannot be classified as being predicted by a certain set of variables. For example, one cannot conclude from these findings that advise and finance – the individual co-planning activities in this study – have the same predictors. Likewise, one cannot conclude that co-planning, co-implementation, and co-monitoring each have their own unique set of predictors.
### Table 4.16 Model 3 – Hierarchical Stepwise Logistic Models with Interactions (Odds Ratios)

<table>
<thead>
<tr>
<th>CityMtgr</th>
<th>NPU Mtgr</th>
<th>CommMtgr</th>
<th>Advise</th>
<th>Donate</th>
<th>Clean</th>
<th>Patrol</th>
<th>Hearings</th>
<th>Violations</th>
<th>Suspicions</th>
<th>Malfunctions</th>
<th>ACRB</th>
<th>Thank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>0.76**</td>
<td>1.65***</td>
<td></td>
<td></td>
<td>1.30**</td>
<td>1.33**</td>
<td>1.34**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>1.29***</td>
<td>1.28**</td>
<td>1.30**</td>
<td>1.28**</td>
<td>1.65**</td>
<td>1.25**</td>
<td>1.22**</td>
<td>1.21***</td>
<td>1.25**</td>
<td></td>
<td>1.79**</td>
<td>1.52**</td>
</tr>
<tr>
<td>Purpose</td>
<td>1.16**</td>
<td>1.22**</td>
<td></td>
<td></td>
<td>1.23**</td>
<td>1.23**</td>
<td>1.27**</td>
<td>1.23**</td>
<td>1.25**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic Duty</td>
<td>1.66**</td>
<td>1.30**</td>
<td></td>
<td></td>
<td>1.42**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Govt-Encour</td>
<td></td>
<td>1.30**</td>
<td></td>
<td></td>
<td>1.23**</td>
<td>1.23**</td>
<td>1.23**</td>
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<td>1.25**</td>
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<tr>
<td>Nghihr-Encour</td>
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<td></td>
<td></td>
<td>0.72</td>
<td>0.29**</td>
<td>0.04***</td>
<td>0.10***</td>
<td>0.70**</td>
<td></td>
<td>0.48*</td>
<td>0.14**</td>
</tr>
<tr>
<td>Connect</td>
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<td>0.71**</td>
<td></td>
<td></td>
<td>0.72</td>
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<td>1.69**</td>
<td>9.17**</td>
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<td>3.28***</td>
<td></td>
<td></td>
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<td>Income</td>
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<tr>
<td>Income</td>
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<td>0.76*</td>
<td>0.72*</td>
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<td></td>
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<tr>
<td>Mnrty*Income</td>
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<td></td>
<td></td>
<td>1.21</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Mnrty*Education</td>
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<td></td>
<td></td>
<td></td>
<td>0.76**</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1.33***</td>
<td>1.39***</td>
<td></td>
<td></td>
<td>2.07**</td>
<td>3.08***</td>
<td>2.31***</td>
<td>1.82**</td>
<td>1.22**</td>
<td>2.29**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
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<td>0.89***</td>
<td></td>
<td></td>
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<td>0.91**</td>
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<tr>
<td>Child in HH</td>
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<td>3.04**</td>
<td></td>
<td></td>
<td>0.57**</td>
<td>0.39**</td>
<td>0.08**</td>
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</tbody>
</table>

Note: *** p<0.01, ** p<0.05, * p<0.01
CONCLUSION

At the crux of this research was an interest in understanding how and why citizens interact with their local government toward public service delivery. Specifically, this study sought to determine the prevalence of various forms of coproduction in an urban municipality and test predictions about the motivations and demographic characteristics of coproducers. To date, this is the first study that has conducted a citywide assessment to fill these important gaps in the literature.

In sum, this study generated three major and rather unexpected findings. The first major finding (R1) is that coproduction is more prevalent in the planning stage than in the monitoring stage. Because citizens share responsibility with their local government in providing quality services (Percy et al, 1980), it was expected that the monitoring stage would be their gateway to all things coproduction. However, given that study subjects are a special subset of Atlanta residents who engage in co-planning, this unexpected finding might not be a true reflection of Atlanta’s coproduction prevalence.

A four-part coproduction typology was developed in this study based on the two most contentious definitional components of coproduction: how voluntary it is and how much coordination there is between government and citizens. I selected Type IV coproduction as the focus of this study because of its high level of voluntariness and conjointness – (1) where participation is not largely based on compliance (so it is fully voluntary); and (2) where citizens are actually working with their local government and can potentially share power with their local government in the public service production process.

The second major finding of this study (R2) is that Type IV coproduction is quite effective in engaging demographic groups historically categorized as nonparticipants. In fact, for some activities, respondents in these groups coproduced more. As such, both scholars and practitioners might begin to explore ways to increase opportunities for
engaging in these types of activities. Scholars suggested that participation disparities are not likely to exist if there are opportunities for power exchanges, such as what is hoped for in Type IV coproduction. Given the history of coproduction’s emergence as a post-urban renewal strategy that would allow for citizen influence (rather than mere inclusion), this might explain why Type IV coproduction is being utilized more by these same demographic groups who initiated such efforts long ago.

The third major finding of this study (R3) is that coproduction is not necessarily motivated by one’s desire to produce or improve a public service. Internal and intangible factors – civic duty, self-efficacy, and sociality (desire to connect with neighbors) – have greater impacts on coproducers. Therefore, scholars might need to begin conceptualizing coproduction in new ways (e.g., how it is defined, what it could or should achieve) or at least work to expand the current coproduction theory. As well, practitioners might need to assess the actual versus desired outputs and outcomes of citizen coproduction.

In this final chapter, I discuss these major findings in greater detail, as they relate to the three research questions of this study. In the following subsections, I discuss the inferences that can be drawn from these findings, the practical and scholarly implications this study raises, and future research directions. I close with some final thoughts about coproduction and its role in the grand scheme of democracy and public service delivery.

5.1 Which Forms of Coproduction Are Most Prevalent?

Citizen coproduction was assessed based on activities that are highly conjoint and fully voluntary, classified in this study as Type IV coproduction. A closer look at Type IV coproduction incited further operationalization of these activities in terms of service production stage (planning, implementation, and monitoring) and collectiveness (individual and collective). In future studies, scholars might consider studying coproduction from the lens of the typology and classifications developed in this study, as they enable more systematic research of this phenomenon.
I asserted and the focus group results confirmed that co-monitoring is practically synonymous with individual coproduction; however, co-planning is not synonymous with collective coproduction. For one, co-planning occurs individually and collectively. Secondly, the co-implementation activities could very well be undertaken both individually and collectively. Additionally, the coproduction activities that emerged from the focus group interview (Table 3.3) revealed that there are more opportunities to co-monitor than to co-implement and co-plan. In other words, there are more opportunities to coproduce individually than collectively. As I asserted in Section 2.2, it might be easier for people to coproduce on their own than to seek ways to collectively act.

Of the three service production stages, the questionnaire results indicate that co-planning is the most popular of these stages, not co-monitoring as expected. Two factors may have contributed to this finding. First, there is a wider variety of activities that can be coproduced in the monitoring stage. Because there are more opportunities to co-monitor, what may be occurring is a distribution of co-monitoring participation rather than less participation. That is, if co-monitoring activities were combined into fewer categories, the prevalence of co-monitoring may have been higher.

Second, due to the methodological approach of this study, respondents may have a leaning toward co-planning. In other words, co-monitoring may in fact be the gateway to all things coproduction, but study subjects represent a unique subset of Atlanta coproducers who have taken a liking to co-planning, and even to co-implementation. These factors notwithstanding, coproducers may, in earnest, be more interested in activities that allow them to interact with their neighbors and community than those that are performed alone.

Had it have been more feasible, a study of the general Atlanta population might have provided results in support of the hypothesis that co-monitoring is the more prevalent form of coproduction. Despite this limitation, it turns out that the study sample is fairly representative of Atlanta residents. After comparing the sample characteristics
of this study with that of Atlanta’s citywide survey of its residents, the demographic similarities confirm the general representativeness of this study sample, particularly for the paper (vs. online) sample. In a future study, it might be meaningful to examine the paper and online samples separately.

Nonetheless, as intended, the results of this study provide insights into the coproduction practices of Atlanta residents. Study findings indicate that opportunities to collectively coproduce (or co-plan) generally take place on a monthly basis; whereas individual coproduction (or co-monitoring) can occur as frequently as one chooses to engage. The collective activities identified for this study during the focus group are regularized, such that those who engage in these activities oftentimes have adopted it as part of their monthly routine. The individual activities, on the other hand, may be undertaken on a case by case basis. While any coproduction action may need to be triggered by a (good or bad) change in service conditions or household needs, this may be more so the case for individual coproduction than for collective coproduction. Notice that the co-monitoring/individual activities are specific to a service need while the collective co-planning activities are general meetings that may address an array of concerns. In Section 5.3, I discuss these findings in greater detail, highlighting which predictors are more important for specific forms of coproduction.

One purpose of this study was to determine the prevalence of coproduction in an urban municipality. This study found that, among those residents who are more inclined to coproduce (paper questionnaire respondents), at least 50 percent of them participate in 10 of the 13 coproduction activities identified in this study. Among those less likely to coproduce (online questionnaire respondents), at least 50 percent of them participate in 8 of the 13 coproduction activities. So while coproduction is not as likely for less active NPU participants, they still have a high level of coproduction participation. Lastly, study findings confirmed that those who engage in one coproduction activity are indeed more likely to engage in another form of coproduction; in essence, a ripple effect.
5.2 Who Engages in Each Form of Coproduction?

Seven factors were considered in assessing the demographic make-up of coproducers. Overall, coproduction is more popular among men, minorities, older residents, property owners, lower-income residents, and less educated residents. Findings also indicate that having children in the household is generally not related to participation in coproduction.

Older residents are found to coproduce more than their younger counterparts. In many cases however, middle-aged residents coproduce more than those older and younger than them. Notably, the senior-adults population is significantly more active in collective coproduction (attending any of the monthly meetings). Meanwhile, the middle-age population coproduces the most in all individual coproduction activities. This study exposes the need for more (or more effective) strategies for engaging the younger age groups in various aspects of public service delivery.

Generally speaking, males coproduce more than females and minorities coproduce more than non-minorities. But for the majority of the 13 coproduction activities examined in this study, gender and race are not significantly associated with coproducing. The same is true for income and education. As expected, income and education play similar roles in coproduction participation. Unexpectedly, and contrary to the literature, lower-income and less-educated people have higher levels of coproduction. As a whole, the present study provides evidence that Type IV coproduction helps does not reflect the various disparities that exist in citizen participation. Also evidenced from this study, Atlanta’s NPU strategy is effective in engaging historically marginalized populations in coproduction. Findings in Section 4.2.4 revealed that NPU meeting attendance significantly contributes to participation in all other coproduction activities, explaining as much at 10 percent of the variation in coproduction participation.

Seeing that the NPU structure and other forms of Type IV coproduction prove to be quite effective at engaging demographic groups historically categorized as
nonparticipants, practitioners might begin to explore ways to increase opportunities for engaging in these types of activities. For one, other cities might consider adopting the NPU structure, as it encourages regular opportunities for collective coproduction. As this study showed, participation in one coproduction activity increases one’s likelihood of participating in other activities, so this NPU structure may actually increase one’s awareness of other ways and opportunities to coproduce. As such, this study not only offers insights about Atlanta, but central cities with similar characteristics can benefit from these findings.

Atlanta’s coproduction strategy of establishing formalized and regularized opportunities for citizen engagement via NPUs was rather advanced for its time and for the city’s geographic location in the racially and politically conservative Deep South. Recall from Section 3.1 that during the wave of federal mandates for maximum feasible participation, Atlanta was one of the first cities to institute, on her own volition, formal participatory mechanisms. Atlanta’s NPU system was birthed from this initiative as a way to facilitate citizen participation in city planning, regardless of socioeconomic status. During a time when such mechanisms were not in place, this City initiative complemented citizens’ post-urban renewal push for greater involvement and influence in the decisions that affect their lives. This historical context might explain the equalizing effect of Type IV coproduction on participation levels – showing that, today, the demographic groups that were left behind by “white flight” and suburbanization may be drawn to Type IV power-exchanging activities more so than to activities that only allow for mere inclusion.

Finally, like many central cities, Atlanta is known for having distinctively high rates of both poverty and economic prosperity (Sjoquist, 2000). However, Atlanta is somewhat unique in that African-Americans make up nearly 60 percent of its population. This unique attribute may contribute to the unexpectedly higher levels of coproduction among minorities, lower-income, and less-educated residents. Minorities, who
consistently have disproportionately lower income and education than non-minorities, might feel more empowered and efficacious in Atlanta than in a city where they are not the majority population. Future studies should compare minority concentrations in other central cities as it relates to their level of participation in coproduction.

5.3 What Motivates Each Form of Coproduction?

Given the public service output that is sought from coproduction, one would reasonably assume that coproducers are motivated by material needs. Yet, service quality and service quantity needs did not have much significant impact in this study. In fact, nonmaterial motivations (self-efficacy, citizenship, and sociality) were found to have the greatest and most consistent positive impact on coproduction levels. This lack of significance of material motivations might initially be surprising. However, recall from Section 2.4 that tangible service needs are not as likely to motivate coproduction as intangible needs (Alford, 2002, 2009; Parrado et al, 2013; Powers & Thompson, 1994; Thomas & Melkers, 1999). Because of the nature of public services, non-coproducers (i.e., free-riders) can easily benefit from coproduction without making any contribution toward the public service. Therefore, an appeal to citizens that coproduction generates tangible benefits for them may not be reason enough for citizens to volunteer their time and efforts; hence the lack of significance of material motivations.

Furthermore, if there is no threat to the quantity or quality of the public service, it is difficult to motivate coproduction with material incentives (Alford, 2002, 2009; Parrado et al, 2013; Thomas & Melkers, 1999). Interestingly enough, study findings support this notion by revealing that material needs significantly motivate coproduction actions that have direct effects on a public service. What does this mean? Well, some coproduction activities may directly lead to a service output, and others may have more of an indirect effect. For example, reporting a service malfunction or code violation and cleaning the community or other public facilities directly affects the service level or
service quality; whereas, attending public meetings indirectly affects service output, as it provides a platform for which to execute the more direct action (reporting service issues). Study findings indicate that direct-effect activities – activities that are specific to a public service output – are more likely to be stimulated by material motivations while indirect-effect activities generally have nonmaterial motivations.

I offer one final conclusion about material needs. Those with material needs are more likely to directly contact their elected officials than attend a general body meeting. In fact, having material needs significantly demotivates or discourages residents from attending City Council meetings. This finding might seem counterintuitive to our understanding of the planning process, where the original groundwork is laid toward the development of a new public service by sharing ideas, designs, and financing. However, coupled with the fact that material motivations have no impact on most co-planning activities, one might speculate that these self-selected co-planners are all too familiar with and possibly now jaded by their failed attempts to develop or improve a public service in the past via these co-planning mechanisms. This may speak to what Arnstein (1969) refers to as “participation without redistribution of power,” which therefore suggests that these co-planning activities exist at the lower rungs of participation that range from manipulation to placation. At the higher rungs of participation, co-planners would experience the partnership, power, and control that are expected from Type IV coproduction.

Indeed, nonmaterial motivations were expected to have the stronger impact on coproduction levels (Alford, 2009, etc). Even so, I also expected each coproduction activity in this study to be triggered by at least one nonmaterial motivation and one material motivation. In actuality, only 4 of the 13 coproduction activities were significantly and positively impacted by service quantity or service quality needs; whereas all 13 activities were positively and significantly impacted by one or more nonmaterial motivation.
The findings for *self-efficacy* confirmed that residents are more likely to coproduce when they are more confident in their ability to contribute to the public service delivery process. In addition, unanticipated but provocative findings about self-efficacy also emerged. For one, considering the study finding that people are more interested in collective (vs. individual) coproduction, it appears that coproducers are more confident in their collective abilities than in their individual abilities. In other words, if self-efficacy leads to individual coproduction and collective efficacy leads to collective coproduction, then collective efficacy must be higher among coproducers than self-efficacy. In particular, the “I can make a difference” self-efficacy variable, which was the most popular motivation among coproducers, might be acting as a proxy for collective efficacy. That is, coproducers might feel more efficacious and empowered as a collective, which might explain why they engage more in collective activities than in individual activities.

Residents’ belief that it is their duty to coproduce was the second most popular motivation among coproducers. Of the two indicators for *citizenship*, this internally-driven civic duty motivation seemed to resonate with coproducers much more than the externally-driven government encouragement motivation. As such, residents are more likely to coproduce not merely because they are more aware of coproduction opportunities (government encouragement), but more so because they are more receptive of their role as citizens (civic duty).

This should in no way diminish the fact that government encouragement has a significant, positive impact on coproduction levels. Quite notably, the three coproduction activities that are organized and administrated by local governments themselves were the only three activities that were significantly motivated by government encouragement. These activities are attending City Council meetings, attending court hearings, and filing a complaint against a public service agent via the Atlanta Citizen Review Board.
This finding gets to the core of Alford’s (2009) assertion about motivators and motivations. Essentially, the former are instruments deployed by government in hopes of resonating with the latter (Alford, 2009, p. 66). Thus while motivators alone cannot move citizens to coproduce, they may appeal to citizens’ beliefs, needs, and wants, and thereby generate the actual motivations behind coproduction. Study findings offer insights into the type of activities that might cause local governments to deploy motivators. Specifically, public agencies initiate recruiting measures in efforts to engage their constituents in government-run activities. All other coproduction activities that are significantly motivated by citizenship are internally motivated by civic duty.

It was not surprising that those wanting to socialize with their neighbors engage in collective coproduction (co-planning), rather than in individual coproduction (co-monitoring). The sociality motivation positively impacts participation in NPU and community-related meetings. Sociality was also found to motivate participation in neighborhood cleanups, which, interestingly, are oftentimes undertaken collectively rather than individually. Outside of these three activities, the sociality motivation is not as impactful as I expected it to be. For one, it has no impact on more than half of the coproduction activities in this study. Secondly, sociality needs seem to demotivate participation in City Council meetings and community-related court hearings – and for good reason. Unlike the neighborhood-based NPU and community-related meetings, City Council meetings and court hearings require residents to interact with people outside of their neighborhood, who they may not know or may not want to know.

Like the citizenship motivations, the sociality motivations have an internally-driven indicator (desire to connect with neighbors) and an externally-driven indicator (encouraged by neighbor to coproduce). Similarly as well, the externally-driven motivation (being encouraged by neighbor) was significant for the most directly related coproduction activity – attending neighborhood-related meetings. Overall, citizens’
desire to be positively regarded by their neighbors plays a much weaker role in coproduction participation than do efficacy and citizenship.

5.4 Final Thoughts

The role of local governments is: (1) to build and sustain infrastructure (e.g., roads, traffic, code enforcement, public safety, economic development, and master planning); and (2) to build the social fabric of the community by adequately informing and effectively engaging their constituents (Block, 2009; Hayward, 2010). “Providing services to the public is a fundamental role of local government,” in order to ensure a basic level of quality of life for its residents (Hayward, 2010, p.S131). Municipalities take on service responsibilities that consistently include services related to public health and safety, housing, municipal courts, parks and recreation services, and public works such as sanitation, streets, sewers, and signage (Hayward, 2010; The White House, 2013). Many of these service areas were examined in this study of coproduction.

Coproduction is a government tool used to engage individual residents or groups of residents in the planning, implementation, and/or monitoring of public services. Whereas public services are traditionally delivered solely by the government, coproduction theory has long suggested that the joint participation in public service delivery is optimal for both parties. As a result, these citizen-government partnerships can generate greater user satisfaction of public outputs and outcomes, as well as increase the provision of public services, especially in communities where governments do not have the capacity to effectively or sufficiently provide services (Brudney & England, 1983; Ostrom, 1996; Whitaker, 1980).

Findings from this study helped identify the need to reconceptualize the current coproduction theory. Findings suggest a coproduction theory that runs counter to what scholars have previously asserted, whereby citizens are not coproducing because of a service need but rather because of a personal fulfillment element that has not been
addressed before, at least in this context. In other words, the definition of citizen coproduction might need to be expanded from the production of public services to include the production of human capital, social capital, and citizenship.

Future studies might further explore this new theory. For example, one such study might repeat the present study in other cities (in the US or abroad) to conduct comparative analyses that examine whether similar results emerge in terms of representation, motivations, and level of coproduction and what might cause differences across cities.

Future studies might also utilize the coproduction typology I developed in this study in order to examine the other coproduction types (Types I-III) and determine which of them is more in line with and supports the current coproduction service delivery theory. Another study might test the strength of this theory by researching the types of impacts coproduction efforts have on specific public services. While Type IV coproducers are not primarily motivated by service needs, another study might examine whether they are expecting a service-based return on their coproduction investments. Along these same lines, yet another future study could test the strength of coproduction’s user satisfaction theory. Essentially, are coproducers more satisfied with their public services than non-coproducers? These future studies could offer empirical bases for beginning to challenge (or fortify) the notion of coproduction as a tool for both public service delivery and citizen satisfaction.

A key objective of this study was to enable practitioners to be more strategic about the types of coproduction they employ and the coproduction incentives they deploy when recruiting coproducers. I sought to link citizen characteristics and motivations to the specific forms of coproduction identified in this study; and thereby ascertain a unique set of predictors for each form. This study revealed that each form of coproduction cannot be classified as being predicted by a certain set of variables. For example, the two individual co-planning activities in this study do not have the same predictors.
Nevertheless, study findings enable public managers to understand the motivations of coproducers, as they revealed that most activities (regardless of their production stage or collectiveness) are motivated by self-efficacy and citizenship. To be sure, self-efficacy and citizenship motivations had the greatest impact on coproduction levels. As such, public managers might consider coproduction recruitment techniques that appeal to people’s citizenship and self-efficacy motivations as opposed to their public service needs. In so doing, they might increase coproduction participation, especially in the specific activities examined in this study. It would also be interesting to conduct a study that identifies what recruitment strategies are more effective.

At the core of coproduction and other participatory efforts is the ever-enduring pursuit of a more effective and representative democracy – one that “reassert[s] the values of democracy, citizenship, and the public interest as the preeminent values of public administration” (Denhardt & Denhardt, 2011, ix). In this study, Type IV coproduction proves to be effective toward this endeavor. Those historically less likely to participate in coproduction – minorities, low-income, and less educated – either have significantly higher levels of engagement or no significant disparity in involvement. Onward toward democracy and the delivery of public services.
APPENDIX B: NPU MEETING AGENDAS

MEETING AGENDA
NEIGHBORHOOD PLANNING UNIT - ___

DATE: 
TIME: 
LOCATION: 

INFORMATION CONTACTS: 
Chairperson- phone number 
Charletta Wilson Jacks, Director- phone number 
NPU Planner- phone number

AGENDA

1. Opening Remarks
2. Approval of Minutes
3. Reports from City Departmental Representatives
4. Comments from Elected Officials
5. Planner's Report
6. Committee Reports
7. Presentation(s)
8. MATTERS FOR VOTING

ZONING REVIEW BOARD

<table>
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<tr>
<th>Application Number/Description</th>
<th>Property Address</th>
<th>Public Hearing Date/Time</th>
</tr>
</thead>
</table>

BOARD OF ZONING ADJUSTMENTS

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LICENSE REVIEW BOARD

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<th>Type of Business</th>
<th>Name of Business</th>
<th>Property Address</th>
<th>Request</th>
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Special Events and Outdoor Festivals

<table>
<thead>
<tr>
<th>Event Name</th>
<th>Proposed Location</th>
<th>Proposed Event Date</th>
</tr>
</thead>
</table>

9. MATTERS FOR REVIEW AND COMMENT

TEXT AMENDMENTS, ORDINANCES and RESOLUTIONS

10. Old Business
11. New Business
12. Adjournment
MEETING AGENDA
NEIGHBORHOOD PLANNING UNIT - C

DATE: Tuesday May 6, 2014
TIME: 7:00 P.M.
LOCATION: Trinity Presbyterian Church
1000 Howell Mill Road
(Center of the Inland Center)

INFORMATION CONTACTS:
Michael Web, Chairperson: mwesak@cheetah.com (404) 423-0801
Charlottesville Wilson, Director: chwilson@atlanaga.gov (404) 430-0745
Stewart Henderson, NPU Planner: shenderson@atlanaga.gov (404) 801-8072
Melissa McMichael, NPU Coordinator: mmcmichael@atlanaga.gov (404) 330-4999

1. Approval of Minutes
2. Reports from City Department Representatives
   a. Parks & Recreation
   b. Department of Watershed Management
   c. Fire Department
   d. Police Department
   e. COPS Division
3. Comments from Council Members and/or Elected Officials
4. Planner’s Report
5. Other Business
   a. Matters for Voting

SPECIAL EVENTS
5K Trail Race
5K Trail Race
Field Park, 400 Park Drive
May 6, 2014

Board of Zoning Adjustment (BZA)
(NPU Vote Required)
Case Address Public Hearing
V-14-042 755 Peachtree Battle Ave May 1, 2014

Zoning Review Board (ZRB)
(NPU Vote Required)
Case Address Public Hearing
Z-14-018 1186 Collier Rd NW June 5 or 12, 2014 at 6:00 P.M.

ACTUAL AGENDAS
## APPENDIX C: NPU Demographics

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<th>Median HH Income</th>
<th>Percent of Atlanta popul.</th>
<th>Afro-Am/Black</th>
<th>Euro-Amer/White</th>
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<th>Households w/ children (under 18)</th>
<th>Households w/ seniors (65 &amp; over)</th>
<th>Median Age</th>
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APPENDIX D: Focus Group Recruitment Email

From: kuzochukwu@gsu.edu
To: kelechi@gatech.edu
BCC: [25 NPU Chairs]
Subject: INVITATION: Research on Public Service Delivery in Atlanta

Greetings NPU Chair,

I am a PhD student at the joint doctoral program in Public Policy at Georgia Tech and Georgia State University, and I am currently working on my dissertation research.

I would like to formally invite you (or in your absence, the NPU vice chair or your NPU’s APAB delegate) to participate in the first phase of this study, a focus group interview. If you decide to participate, you will partake in a roundtable discussion with other NPU chairs about the various ways in which Atlanta residents interact with their local government toward public service delivery. This discussion will take place on Saturday, February 8, 2014 at 3pm and will require up to 2 hours of your time, one time only.

The purpose of my study is to investigate the various ways in which Atlanta residents interact with their local government in public service delivery. I selected Atlanta’s Neighborhood Planning Unit (NPU) system because the NPUs are in place to encourage citizens and local governments to work together.

In this study, you will not have any more risks than you would in a normal day of life. Your participation in this research is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to leave at any time. You may decide not to answer certain questions or stop participating at any time. Whatever you decide, you will not lose any benefits to which you are otherwise entitled. Participation in this study may not benefit you personally. However, toward improving the delivery of local public services in Atlanta, a summary of these results can be provided to all NPUs.

Questions, concerns, or complaints about this study can be directed to Kelechi Uzochukwu at 404-805-8040 or kelechi@gatech.edu. Questions or concerns about this research, research participants’ rights, and/or research-related injuries to participants should be directed to Susan Vogtner in the Georgia State University Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu.

Sincerely,

Kelechi N. Uzochukwu
PhD Student, Public Policy
Georgia Tech | Georgia State University
Website: http://kelechiuzo.webs.com
Email: kuzochukwu@gsu.edu
Phone: 404.805.8040
APPENDIX E: Focus Group Consent Form

Dear potential participant of the Focus Group study:

The purpose of the study is to evaluate the impact of local government policies, neighborhood planning initiatives, and local government relations on public service delivery in Atlanta and neighboring communities. As a resident of one of the neighborhoods included in this study, your participation in the focus group interview is encouraged and appreciated.

Before you agree to participate, you will be provided with a written consent form. This form will explain the purpose of the study, the procedures involved, and your rights as a participant. You will be asked to sign the consent form to indicate your voluntary participation. If you have any questions or concerns, you may contact the study coordinator.

If you agree to participate, you will be contacted by phone to arrange a time and place for the interview. The interview will take place at a location convenient to you and will last approximately 1 hour. You will be compensated for your time and travel expenses.

By participating in this study, you agree to share your thoughts and experiences with the researchers. Your participation will help us better understand the challenges and opportunities facing local government in Atlanta and neighboring communities.

We appreciate your time and effort in helping us improve public service delivery in the area. Thank you for your cooperation.

Sincerely,

[signature]

Study Coordinator

Note: This document is a sample of a consent form for a focus group study. Actual consent forms may vary in content and format.
APPENDIX F: Focus Group Protocol

1. Moderator: Thank you for being here. Let’s begin. [Hand out 5x7 index card. Read Introduction on side 1.]

2. **Citizens’ Definition of Coproduction (20 minutes)**
   Moderator: After hearing this statement, what examples come to mind of citizens partnering in the production or delivery of municipal services? Or in an ideal world, what would such interactions look like to you? [Allow them to discuss/decide what constitutes coproduction (i.e., jury duty and advisory roles may not be coproduction to them).

3. **Coproduction Examples by Type (70 minutes)**
   Moderator: Now let’s talk specifically about the roles YOU play in service delivery. To guide our discussion, I’m going to define three roles and then I’ll ask you to give me examples of how you might have played those roles. You can read along on the index card and reference the definitions throughout our discussion. [Read Stages on side 2 of index card. Probe when examples are not specific enough.]
   
   a. Let’s talk about monitoring, which occurs after a public service is produced and delivered. Can you think of specific examples where you or other Atlanta residents monitored services?
      - Give examples if necessary: Offered feedback about a service, reported pothole/outage/potential tree falling, went out to formally evaluate the quality of a delivered service – with or without any government contact.
   
   b. Now let’s talk about service creation. Can you recall a time when you offered volunteer labor (your time and energy) to produce or deliver a public service?
      - Give examples if necessary: Community clean-up, teachers’ aide at your child’s school, volunteer librarian or rec center staff, separating recyclables from garbage.

   c. Lastly, let’s consider the planning of public services. Recall that planning occurs before a service is produced and delivered. Are there instances when you or other Atlanta residents brainstormed and shared ideas about how a proposed public service should be designed, financed, or delivered?
      - Give examples if necessary: Helped decide whether a proposed service would be established, helped decide other specifics about the service before the service ever came to be.

   d. Of the three stages – planning, creating, monitoring – which happens most in Atlanta?

4. **Most Coproduced Service Areas (20 minutes)**
   [Hand out another 5x7 index card with a list of typical local public services.]
   
   a. As you scan this list, think about the examples you’ve given throughout our discussion. Please place a 1, 2, or 3 beside the three service areas that produce
the most interactions between residents and public service agents. What did you select as the most, 2nd most, & 3rd most coproduced service area?

b. In which of the service areas listed here does coproduction not occur at all?

5. **Motivation (10 minutes)**
   a. What motivates you to engage in any of the coproduction activities discussed thus far?
   b. What do you think motivates others to do so?

We have reached the end of this group interview. Is there anything else that you would like to share that would help us better understand the process of public service delivery in Atlanta OR help us better understand how you and your local government interact with one another to deliver public services?

Thank you very much for your time and thoughtful responses during this group interview.
APPENDIX G: Focus Group Handouts

INTRODUCTION
Traditionally, local governments are in charge of providing a set of public services to their residents. Apart from paying taxes and obeying laws, citizens are not required to spend additional money, time, or efforts toward assisting their local government in producing everyday public services. However, for a variety of reasons, some residents help plan, produce, deliver or monitor their public services. I have in mind activities where citizens actually partner in the production of municipal services. The purpose of this group discussion is to identify specific examples of Atlanta residents engaging in these types of activities. This information will help me finalize the questionnaire that will be distributed to Atlanta residents. This study’s ultimate goal is to understand how widespread these activities are in the City of Atlanta and why residents engage in these activities to begin with.

THE STAGES OF PUBLIC SERVICE PRODUCTION

PLANNING Stage
The public service is not yet produced or delivered. Planning activities lay the groundwork for the public service in the form of ideas, designs, and financing.

CREATING Stage
The service is produced and delivered.

MONITORING Stage
Citizens evaluate and report on the quality of the delivered service.

PUBLIC SERVICES

**Education**
- K-12
- GED
- Workforce Development

**Planning**
- Budget Planning
- Courts/Laws/Policies
- Development Projects
- Land-Use/Zoning

**Public Facilities**
- Library
- Parks & Recreation
- Housing

**Public Health/Social Services**
- Ambulance
- Healthcare

**Public Safety**
- Police
- Fire
- Code Enforcement

**Public Works**
- Recycling
- Sanitation
- Sewer
- Signage
- Streets
- Water

**Other**

Other
APPENDIX H: Questionnaire

ATLANTA PUBLIC SERVICE PARTICIPATION QUESTIONNAIRE

1. In the LAST 12 MONTHS, how many times have you participated in the following activities?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>1 to 3 times per YEAR</th>
<th>4 or more times per YEAR</th>
<th>More than one time per MONTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended a County or Atlanta City Council meeting.</td>
<td></td>
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<tr>
<td>Attended the NPU meeting in your community.</td>
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<tr>
<td>Attended your community association meeting (not NPU).</td>
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<tr>
<td>Attended training or information session offered by your City or County.</td>
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<tr>
<td>Attended a festival or other social event in your community.</td>
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<tr>
<td>Used the park, library, or recreation center in your community.</td>
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<tr>
<td>Helped clean the streets, playgrounds, or parks in your community.</td>
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<tr>
<td>Donated money for an event, facility, or project in your community.</td>
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<tr>
<td>Patrolled my community with a police officer (or neighbors).</td>
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<tr>
<td>Personally contacted my local elected official to share feelings about a specific policy or project that affects your community.</td>
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<tr>
<td>Attended a court hearing of someone accused of committing a crime in your community.</td>
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<tr>
<td>Reported code violations to officials, such as when neighbors were too noisy, too messy, or improperly parked.</td>
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<tr>
<td>Reported suspicious activity.</td>
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<tr>
<td>Reported a pothole, streetlight outage, or other service malfunctions.</td>
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<tr>
<td>Filed a complaint through the Atlanta Citizen Review Board.</td>
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<tr>
<td>Contacted my City or County to thank them or share positive feedback.</td>
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</tbody>
</table>

2. Why did you (or why would you) participate in the above activities? Choose up to THREE choices and RANK as 1, 2, 3.

- I felt it was my duty.
- My local government encouraged me to.
- My neighbors encouraged me to.
- It gives me a sense of purpose & accomplishment.
- I was not receiving a government service.
- I was not satisfied with the quality of a government service.
- It makes me feel connected to my community.
- I felt like I could make a difference.
- OTHER

3. In Question #1, if you selected NEVER or 1-3 times, what prevents you from participating more in those activities? Choose up to THREE choices and RANK as 1, 2, 3.

- There was no need to because everything is fine.
- I don't have the time.
- I am not physically able.
- I have no transportation.
- It is a waste of time; it would produce no results.
- That is the government's job, not mine.
- I don't want to run into someone I am avoiding.
- OTHER

4. In your opinion, what is the OVERALL QUALITY of the following government services in your community?

<table>
<thead>
<tr>
<th>Service</th>
<th>POOR</th>
<th>FAIR</th>
<th>GOOD</th>
<th>EXCELLENT</th>
<th>I DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parks and Recreation</td>
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</tr>
<tr>
<td>Public Libraries</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Code Enforcement</td>
<td></td>
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<tr>
<td>Firefighting/Fire Protection</td>
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<tr>
<td>Police Services and Crime Prevention</td>
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<td></td>
<td></td>
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<tr>
<td>Courts and Justice System</td>
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<tr>
<td>Streets (roads, signage, lighting, etc.)</td>
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<tr>
<td>Sanitation</td>
<td></td>
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<tr>
<td>Recycling</td>
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<td></td>
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<tr>
<td>Citizen involvement in the local planning process</td>
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<td></td>
<td></td>
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</tbody>
</table>
5. (a) What NPU do you live in?  
(b) Check **ALL** that apply: In this NPU, are you a: □ Homeowner? □ Home Renter? □ Business Owner? □ Other?

6. (a) How long have you lived in this NPU? □ Less than 1 year □ 1-5 years □ 5-10 years □ 10+ years 
(b) How well do you know your neighbors? □ Not at all □ Only some of them □ Most of them

7. Did you vote in the November 2013 local election? □ Yes □ No

8. Do you have children under 18 years old living with you? □ Yes □ No

9. What is your gender? □ Male □ Female

10. What is your age range? □ 18-24 □ 25-34 □ 35-44 □ 45-54 □ 55-64 □ 65-74 □ 75 or older

11. What is the highest level of education you have completed? □ Less than H.S. Diploma □ H.S. Diploma □ Bachelors' Degree □ Graduate Degree

12. Which race/ethnicity best describes you? □ African-American/Black □ Asian/Pacific Islander □ Latino/Hispanic □ Amer Indian/Alaska Native □ Caucasian/White □ Bi/Multi-Racial □ Other

13. What is your approximate annual household income? □ $0 – $34,999 □ $35,000 – $54,999 □ $55,000 – $84,999 □ $85,000 or more

14. I am: □ Retired □ Student □ Employed full-time □ Employed part-time □ Unemployed □ Other

15. (a) I usually think of myself as a: □ Republican □ Democrat □ Independent □ Other __________
(b) I would describe myself politically as: □ Conservative □ Liberal □ Very Conservative □ Very Liberal □ Middle of the Road

16. Is there anything else that you would like to share that would help us better understand how you and your local government interact with one another to deliver public services?

---

**Thank you for participating!**

If you have any questions at all, please contact Kelechi Uzochukwu – kelechi@gatech.edu or 404-805-8040.
APPENDIX I: Questionnaire Recruitment Email

From: kuzochukwu@gsu.edu
To: kelechi@gatech.edu
CC: McMichael, Miltresa <MMcMichael@AtlantaGa.Gov>
BCC: [25 NPU Chairs]
Subject: Research on Citizen Participation in Atlanta Public Service Delivery

Greetings NPU Chair,

Thank you so much for your patience and support. The Atlanta citizen survey has arrived. Please forward the below survey invitation to your member email list. Thank you!

Dear Atlanta Resident,

You are invited to participate in a very brief survey about the various ways in which Atlanta residents interact with their local government to produce public services. Participation may take up to 10 minutes of your time, one time only.

All participants will be entered into a drawing for a chance to win a $50 Visa gift card. Two gift cards will be given away to two randomly selected participants. The drawing will take place on Monday, April 21, 2014, and the winners will be notified on the same day.

We hope you will participate. Over the past 12 months, the City's Office of Planning has been very helpful and supportive of this research, and I would be ever grateful for your support as well. This study will not pose any more risks than you would in a normal day of life. Your feedback can be very useful in showing the City of Atlanta how it is doing and how it might do better in providing and/or improving local public services.

Your responses will be kept strictly confidential. The completed surveys will NOT go to the City or to any other government entity. Rather, they will go directly to Ms. Kelechi Uzochukwu, the PhD student who most of you have already met. She is conducting this research for her dissertation, and she will provide the City and relevant State legislatures with summary information only, with no identifying information on individual respondents.

You may answer this short survey here: https://www.surveymonkey.com/s/AtlantaParticipation

Again, we hope you will participate.

Thank you,

Kelechi N. Uzochukwu
PhD Student, Public Policy
Georgia Tech | Georgia State University
Website: http://kelechiudo.webs.com
Email: kuzochukwu@gsu.edu
Phone: 404.805.8040
APPENDIX J: Questionnaire Consent Form

George Mason University
Department of Public Management and Policy
Informed Consent

Title: Assessing the Value of Participating in the New Social Contract

Informed Consent: John C. Thomas

Appendix J: Questionnaire Consent Form

I. Purpose

The purpose of this study is to investigate the relationship between trust in government and support for social programs. You are invited to participate in this study, which will be conducted at George Mason University. Participation in this study is voluntary and will not affect your grades. Participation will require 15 minutes of your time, and the data collected will be used only for research purposes.

II. Procedure

If you decide to participate, you will fill out the following questionnaire, which will take approximately 15 minutes to complete.

III. Risk

In this study, you will not be exposed to any risk that you would not experience in a normal day of life.

IV. Benefits

Participation in this study may lead to benefits for participants. By filling out the questionnaire, you will receive a small gift card.

V. Confidentiality and Withdrawal

Participation in research is voluntary. You do not have to participate in the study. If you decide to participate, you will be asked to provide your name and contact information. The data collected will be kept confidential and will not be shared with anyone outside of the research team.

VI. Contact Information

We will keep your personal information in a secure manner. In the event of any questions or complaints, you can contact the research team at the following email address: app_j@乔治亚m大学.

If you agree to participate in this research, please complete the following questionnaire.

Please read the text for your records.

If you agree to participate in this research, please complete the following questionnaire.

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REFERENCES


VITA
KELECHI N. UZOCHUKWU
P.O. Box 3992, Atlanta, GA 30302-3992
kelechi@gatech.edu | www.kelechiuzo.webs.com

EDUCATION

2014  PhD, Public Policy  (October 15, 2014)  Atlanta, GA
Georgia State University & Georgia Institute of Technology (Joint PhD Program)
Specializations: Planning & Economic Development | Public/Nonprofit Management
Dissertation: “Assessing the Prevalence, Participants, and Predictors of
Coproduction: The Case of Atlanta, Georgia” – Advisor Dr. John C. Thomas

2007  MPA, Master of Public Administration  Atlanta, GA
Andrew Young School of Policy Studies, Georgia State University
Specialization: Management & Finance

2004  BS, Civil & Environmental Engineering  Greensboro, NC
North Carolina Agricultural & Technical State University
Waste Management Certification

RESEARCH & TEACHING INTERESTS:

Public Management  Urban Planning  GIS Applications  Research Methods
Org Theory & Behavior  Race/Class/Politics  Policy Analysis  Program Evaluation

PUBLICATIONS

Uzochukwu, K. 2014. “The Associations between Neighborhood Constructs and
Physical Activity: Understanding Race & Income Disparities.” (revise & resubmit at
Journal of Social Work in Public Health)
2014 Best Research Paper Award, Ivan Allen College of Liberal Arts, Georgia Tech

Coproduction in Atlanta, Georgia.” Public Administration Times.

Hubsmith, D. and K. Uzochukwu. 2013. “Safe Routes to Schools.” In Encyclopedia of

In Preparation
Uzochukwu, K. “Comparing the Effectiveness of Formal and Informal Coproduction in
Engaging Underrepresented Groups in Public Service Delivery”

Uzochukwu, K. “Are Men and Women Equally Engaged in Coproduction? Evidence
from 20 Countries in Sub-Saharan Africa”

Development Programs in U.S. Cities: An Analysis of the Literature from 1970 to 2010”
CONFERENCE PAPER PRESENTATIONS

Nov 2014  Association of African Planning Schools Conference, Cape Town, South Africa  
Sep 2014  Southeast Conference for Public Administration, Atlanta, GA  
Mar 2014  American Society for Public Administration Conference, Washington, DC  
Mar 2014  Conference of Minority Public Administrators, Washington, DC  
Mar 2014  Urban Affairs Association Conference, San Antonio, TX  
Jan 2014  Georgia Tech Research & Innovation Conference, Atlanta, GA  
Aug 2013  International Public Strategy Forum, Beijing, China  
Apr 2013  Urban Affairs Association Conference, San Francisco, CA  
Apr 2012  Urban Affairs Association Conference, Pittsburgh, PA  
Oct 2010  Association for Budgeting & Financial Management Conference, Omaha, NE  
Oct 2010  Southeast Conference for Public Administration, Wilmington, NC  

INVITED PRESENTATIONS

Presenter: “The Impact of Minority Business Development Programs in U.S. Cities.”  
2013 Whitney M. Young, Jr. Leadership Conference of the National Urban League Young Professionals, Atlanta, GA, October 2013. With Ambassador Andrew Young and Andrea Young


RESEARCH & OTHER PROFESSIONAL EXPERIENCES

2009-present  Graduate Research Assistant – Georgia State University

2009-13  Research/Administrative Associate – Safe Routes to School National Partnership  
Provided research assistance, website management, and program implementation.

2008-09  State Coordinator, SRTS Program – Georgia Dept. of Transp, Office of Planning  
Managed $17.2 million of federal appropriation for transportation projects.

Conducted organizational assessments and program evaluations for federal agencies.

2004-07  Civil Engineer, Schnabel Engineering, Inc.  
Rehabilitated dams; prepared Requests for Proposals (RFPs); managed project budget.

RESEARCH SOFTWARE

GIS software: ArcGIS, MapInfo  
Statistics software: R Project, SPSS, STATA
TEACHING EXPERIENCE (Instructor of Record positions only)

Summer 2012  Policy Data Analysis/Research Methods: PMAP 4041  24 students  
   Georgia State University, Andrew Young School of Policy Studies

Fall 2011  Economic Development Policy: PMAP 4451  26 students  
   Georgia State University, Andrew Young School of Policy Studies

Fall 2009  GRE (Graduate Record Examination) Test  14 students

FELLOWSHIPS/SCHOLARSHIPS

2014  Walter W. Mode Scholarship Award, American Society for Public Administration
2014  Dissertation Fellowship, Andrew Young School & Coca-Cola Foundation
2014  Student Scholarship, Conference of Minority Public Administrators
2013  Kim Hinton Memorial Scholarship Award, Georgia Fiscal Management Council
2013  Founders’ Forum Fellow, ASPA
2012  Fulbright Public Policy Fellowship, Inaugural Year Finalist
   Cancelled due to the unstable security situation in host country

‘09-10  Urban Fellow, Georgia State University
‘09-12  Doctoral Scholar Award, Southern Regional Education Board (SREB)
‘09-12  Dean’s Scholar Fellowship, Georgia State University
‘09-14  Graduate Research Assistantship, Georgia State University

OTHER HONORS (abridged)

2014  Building Future Faculty Program, North Carolina State University
2014  Best Research Paper Award, Ivan Allen College Paper Competition, Georgia Tech
2014  Urban Affairs Association (UAA) Professional Development Workshop
2013  Young Scholars Workshop, American Society for Public Admin., Beijing, China
2010  Doctoral Consortium, Academy of Management (AOM), Montreal, Canada
2007  Inductee, Pi Alpha Alpha National Honor Society for Public Affairs and Admin.
2004  Civil Engineering Student of the Year, North Carolina A&T State University
2003  Inductee, Tau Beta Pi National Engineering Honor Society (2004 President)
2003  Inductee, Golden Key International Honour Society

PROFESSIONAL SERVICE

2014  Assistant Editor, African Social Science Review
2014  Assistant Editor, Journal of Public Management & Social Policy
2014  Manuscript Referee, American Review of Public Administration
2014  Manuscript Referee, Environment & Behavior
2014  Planning Committee, Georgia Tech Research & Innovation Conference (GTRIC)
‘13-14  Graduate Student Advisory Board, Ivan Allen College of Liberal Arts, Georgia Tech
‘10-14  Graduate Mentor, Georgia State University
2014  Conference Volunteer, American Society for Public Administration (ASPA)
2013  Conference Volunteer, Urban Affairs Association (UAA)

COMMUNITY SERVICE (abridged)

2010-present  Treasurer & Grant-writer, Selfless for Africa
2011-13  Youth Ministry Leader/Missions Team, African Christian Fellowship