IIAS Study Group on Coproduction of Public Services

Syracuse University – Greenberg House
Washington, DC
6-7 June 2017
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INTRODUCTION

The International Institute for Administration Studies (IIAS) Study Group on ‘Coproduction of Public Services’ aims to create and nurture an intellectual platform for the theoretical discussion and empirical analysis of coproduction and its implications for the organization and management of public services. Specifically, the Study Group provides a forum for the discussion of challenging research and practice issues related to coproduction and enables intercontinental collaboration among scholars and practitioners, including the establishment of joint and cooperative research programs. The Study Group has collaborated intensively since its first meeting in 2013. Its members have worked to publish special issues in international public administration journals and is currently working on a joint book project.

The Study Group organized its fifth open meeting in June 2017 in Washington, DC with financial, logistical, and organizational support provided by the Program for the Advancement of Research on Conflict and Collaboration (PARCC), a multidisciplinary research institute at the Syracuse University Maxwell School of Citizenship and Public Affairs. Recognizing that the practice of coproduction is gaining ground around the world and that countries differ in the extent to coproduction is used in provision of public services, the organizing committee sought participation from scholars and practitioners who were working to advance the conceptual, theoretical, and empirical understanding of coproduction. Moreover, the committee was particularly interested in papers that tackle the complexity of coproduction in terms of frameworks for analysis, applications of relevant theory, and empirical study. The Call for Papers specifically requested papers focused on the following research questions:

- **What frameworks are useful for advancing our understanding of coproduction?**
  Frameworks specify general sets of variables (and the relationships among the variables) that are of interest to researchers. As constructs, frameworks are particularly useful for identifying the major variables relevant for understanding and analysis. The development of frameworks for coproduction and their usage in empirical research will be critical to developing continuity in future studies.

- **What theories are relevant for understanding coproduction?** Theories provide interpretive structures for frameworks by offering explanations, predictions, or diagnoses about how the variables within a framework interact, fit together, or perform over time. Theories might focus on one area of a framework or address the framework as a whole. Many theories are likely to be applicable and advance research on coproduction, particularly when combined with models for empirical analysis.

- **What do we know from the empirical study of coproduction of public services?**
  Empirical research using innovative and rigorous qualitative or quantitative methodological approaches is necessary for improving our understanding of coproduction. Empirically investigations could center on numerous research areas and questions, including but not limited to:
    - How does coproduction work in practice?


o How does coproduction vary across national and policy contexts?

o How is co-production linked to the transformation of public services, for example through governance or ICT?

o What are the challenges of coproduction for public sector professionals and citizen service users?

o What are the outcomes and impacts of coproduction?

o How does the design of coproduction affect outcomes?

Beyond these and other questions, the organizing committee encouraged all participants to think critically about how their research advances our conceptual, theoretical, and empirical understanding of coproduction. The organizing committee was open to all methodological approaches and disciplines.

These proceedings contain several of the papers submitted to the 2017 conference.

The IIAS Study Group on Coproduction of Public Services is co-chaired by Trui Steen (KU Leuven, Belgium), Tina Nabatchi (Syracuse University, United States) and Dirk Brand (University of Stellenbosch, South Africa). The 2018 meeting of the study group is being organized by Dirk Brand and will be held at the Stellenbosch University School of Public Leadership.
## TUESDAY, JUNE 6

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<td>3. Defining the Variables for the Analysis of Leading Co-Production Situations</td>
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<td>2. Determinants of Co-Production of Public Services in Urban Environments (Mila Gasco)</td>
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| 12.30 – 1.30 | **Understanding the Challenges of Implementation**  
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4. Public Service Dominant Logic and the Coproduction of Public Services (Chris Silvia) |
|              | Lunch                                                                     |                                                                            |
| 1.30 – 3.30  |                                                                            |                                                                            |
| 1.30 – 3.30  |                                                                            |                                                                            |
| 1.30 – 3.30  | **Coproduction at the Community Level**  
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Session Chair: Mila Gasco  
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3. Housing Cooperatives in the Coproduction of Housing and Services for Small Towns: The Case of Amdework, Ethiopia (Bisrat K. Woldeyessus)  
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| 3.30 – 3.45  | Break                                                                     |                                                                            |
| 3.45 – 5.15  | **Keynote Lecture: Jeffrey L. Brudney**  
**Room 1**  
“Coproduction: The Strange Tale of How ‘Sometimes the ‘Wrong Train’ Can Take Us to the Right Place”  
Research on coproduction began in the United States in the early 1980s. A review of publications from that period suggests that the literature on coproduction emerged and grew over the decade, but largely subsided in the 1990s (with some notable exceptions) – only to be revived and reinvigorated by scholarship from across the globe in the 2000s. This presentation speculates on the reasons for the apparent lapse in scholarly interest, some unintended consequences, and the implications of the renewed interest for future research on coproduction. |
| 6.00 – 8.00  | **Reception**  
Lebanese Taverna  
2641 Connecticut Ave NW, Washington, DC 20008, USA |                                                                            |
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# WEDNESDAY, JUNE 7

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<td>3:15 – 5:00</td>
<td>Roundtable Discussion (Room 1)</td>
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Citizen Co-Production and the Altering Legitimacy of Professionalism (Sanna Tuurnas)

IIAS Study Group on Co-Production, Washington, D.C., 6.-7.6.2017

Sanna Tuurnas, University lecturer, PhD
University of Tampere, Finland

Introduction

Co-production is described as both an arrangement and a process to invite communities, individual citizens and clients to participate in the planning, production and evaluation of public services\(^1\) (Bovaird & Löffler, 2012; Osborne & Strokosch, 2013; Verschuere, Brandsen & Pestoff, 2013). Through the aim to connect civil society and the welfare state, co-production thus affects the idea of professionalised public services. The key components of professionalism (expert knowledge, quality and equality) required to handle social problems are questioned in models based on citizen partnerships (see Duyvendak, Knijn & Kremer, 2006). The role of citizens and service users as co-producers in particular seems to question the legitimacy\(^2\) of professional work and the concept of professionalism (Loopmans, 2006).

In this paper, professionalism is defined as an outcome of knowledge and ethical culture that is obtained through professional education and work experience. The paper starts with the assertion that expertise and knowledge are seen as sources of the legitimacy of professionalism in society and that, based on this expertise, professionalism has an established position in the organisation of the welfare state (Molander, Grimen & Eriksen, 2012; Svensson, 2006). As Evetts

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\(^{1}\) The term ‘co-production’ is used here as an umbrella concept to refer to both client-centred service processes (also referred to as ‘co-creation’; cf. Voorberg, Bekkers & Tummers, 2014) and service arrangements where an individual or group of citizens produce a public service in collaboration with public professionals. Citizen co-production may be used as a concept to refer to the wider roles of citizens beyond the role of client or consumer (cf. Tuurnas, 2016).

\(^{2}\) In defining legitimacy, I refer to Svensson’s (2006, p. 580) formulation: ‘legitimacy is defined as the process through which a social system is justified by its members, i.e. the rulers are given the power to rule by the ruled […] The concept is mainly connected with political power and governing, and in relation to citizens. This is a distinct from the rational choice of individual customers in a market […]’. 

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(2013, p. 785) notes, ‘professionalism can be defended as a uniquely desirable method of regulating, monitoring and providing complex services to the public’.

The question of legitimacy has been one of the key themes in research on professionalism in recent decades (cf. Freidson, 2001). Various institutional logics, such as market logic, professional logic, democratic logic and managerial logic, offer contradictory directions for professionals and professionalism (Blomberg & Vaks, 2015; Noordegraaf, 2015). Increased demands for openness, efficiency and accountability have also affected professional discretion and autonomy (Blomgren & Waks, 2013; Sehested, 2002; Taylor & Kelly, 2006). Moreover, the new environment introduces new conditions for the legitimacy of professionalism (Svensson, 2006).

There is a widespread debate in academia as to whether de-professionalisation or re-professionalisation is underway (Duyvendak et al., 2006; Noordegraaf, 2015). However, one thing seems undeniable. As Noordegraaf underlines, the images of professionalism are shifting (2015; 2016). Therefore, there is a need for new understandings of professionalism in changing organisational and societal contexts. This paper also recognises the various roles of (active) citizens as clients, volunteers and residents (cf. Bäcklund, Kallio & Häkli, 2014; Tuurnas, 2015), bringing a less-studied perspective to examine the legitimacy of professionalism. Against this setting, this paper aims to build a preliminary framework for studying professionalism in the context of co-production and underlying, wider societal changes concerning the roles of (active) citizens, civil society and welfare state professionals.

Main hypothesis and research question

In co-production literature, the future role of professionals has been described as coordinators rather than sole experts of public services (e.g. Alford & O’Flynn, 2012; Bovaird, 2007; Tuurnas, 2016). This may mean the de-professionalisation of welfare services, but it can also mean re-professionalisation and new sources of legitimacy. In any case, the hypothesis is thus that the legitimacy of professionalism – based on expertise, knowledge and work experience – is shifting. In order to build a theoretical understanding of the research topic, different streams of literature on professionalism, public sector reform and co-production are connected. Specifically, this
paper addresses the following question: ‘How is the legitimacy of welfare state professionalism shaped by citizen co-production?’

**Focus on professionals**

Ferlie and Geraghty (2005) define professionals based on their position in public organisations: Professionals are those who arrange middle management–level practices and interact with clients on the frontline of public service provisions (Ferlie & Geraghty, 2005). Another way to define professionals is to emphasise their autonomy-based identity and discretion as a central element. Indeed, professionals must deal with ambiguities and complex interactions in their work, and professionalism – as a framework to make decisions – helps them tackle these situations. Abma and Noordegraaf (2003, p. 295), for instance, use health care and the protocols used to handle certain illnesses as examples of professionalism:

> Professionals, in the classical sense of the word, are individuals who have followed a professional education and training, who are members of professional associations, who read professional journals, and who are subject to professional codes and legal procedures. [...] The private and confidential character of knowledge about clients gives professionals a discretionary space to act without the interference of third parties (2003, p. 293).

Professionals can also be defined in relation to the surrounding society. Hupe and Hill (2007, p. 282), for example, distinguish between the characteristics of a certain kind of occupation and the way a person exercising a certain occupation appears to the surrounding society based on the definition of professional.

Ferlie and Geraghty (2005, p. 423) discuss at least three ways to analyse and classify public service professions. The first is to analyse professions based on location (for instance, local versus central government) or through their role as ‘elite professions and para-professions’. Another analytical interest could be ‘tracking the evolution of professionalisation projects’. Finally, the authors suggest an analytical lens to observe the focus on ‘changing relations between the public service professions and more demanding clients’. Out of these typological and analytical suggestions,
the last one is the most appropriate to this paper, as it includes the idea of co-production as a part of the work of public service professionals.

Furthermore, the term ‘professional culture’ has been used here to illustrate the shared norms and values of public service professionals. Professional culture can also be seen as a defining element of professionalism. However, as Evans (2008) points out, professionalism goes ‘beyond’ professional culture: Whilst professional culture may be interpreted as shared ideologies, values and general methods and attitudes towards working, professionalism seems to be generally seen as the identification and expression of what is required and expected of members of a profession (2008, p. 6). Evans thus suggests that professional culture is more attitudinal than behavioural whereas the focus of professionalism is functional rather than attitudinal.

**Professionalism and the public management reform**

Brandsen and Honingh (2013) point out that public management reforms have directly influenced professionalism. The creation of welfare state models – especially in the Continental and Scandinavian contexts – went hand in hand with the ‘professionalisation’ of core welfare state activities. Although the large bureaucratisation of public sector organisation was seen as the end of professionalism, the opposite was true. Educated professionals became the driving force of those bureaucracies (see Evetts, 2011; Ferlie & Geraghty, 2005; Sehested, 2002). As Sehested notes, ‘The public bureaucracies became dependent on the professionals and their expert knowledge to perform the specialised work’ (2002, p. 1515).

In recent decades, the legitimacy of professionalism has especially been shaped through the New Public Management reform (cf. Evetts, 2013; Freidson, 2001). Here, increased demands for openness, efficiency and accountability have affected professional discretion and autonomy (Blomgren & Waks, 2013; Sehested, 2002; Taylor & Kelly, 2006).

New Public Management (NPM) policies have since affected the work of professionals in various ways. First, privatisation and contracting out in the 1980s and 1990s impacted different public sector professionals, from the manual workforce to middle management. However, the privatisation of human service professionals – located in the heart of welfare state services – has
been more challenging (Ferlie & Geraghty, 2005). Then again, these professionals have faced significant changes, especially concerning their professional autonomy. For example, their discretion has been challenged, particularly by the rise of performance management systems and managerial control over their work (Broadbent & Laughlin, 2001; Ferlie & Geraghty, 2005; Freidson, 2001; Jespersen, Nielsen & Sognstrup, 2002; Sehested, 2002).

Sehested (2002) has studied, in the context of Denmark, how NPM reforms have influenced the roles of public service professionals. The author points out that a trend in NPM reforms has been the change of the governing principle from professionalism to managerialism. Sehested also explicates that NPM reform can be understood in different ways depending on the administrative context. In the Nordic model (such as in Denmark), finances, regulations and controls have remained the responsibility of public sector organisations. Then again, NPM reform has increased out-sourcing and contracting out as ways to increase competition (Sehested, 2002, p. 1519; see also Farneti, Padovani & Young, 2010).

As for the professionals, Sehested (2006, p. 1519) specifically mentions changes in the internal organisation of professionals’ work – especially through the loss of their traditional autonomy. The author recognises changes in the monopoly of professionals’ working arenas through the emergence of new administrative units as well as changes in their ideological controls through user influence.

Taylor and Kelly (2006) examine the impacts of public sector reform (especially NPM processes) based on Lipsky’s theory of professional discretion in rule, task and value dimensions. The authors evaluate school teachers and social workers in the context of the UK. According to Taylor and Kelly, rule discretion as the policy-making element has decreased due to an increased quantity of rules and increased accountability. Furthermore, the authors point out that an emphasis on service users as co-producers, the pressures to fulfil the goals set and managerial pressures serve to increase task-based discretion. As Taylor and Kelly argue, professionals are obliged to think about the implications of their tasks from the top-down and from the bottom-up.
Moreover, the work of Sehested (2002) emphasises the ‘double’ pressure on professionals, which comes from the top through administrative and political leadership and the bottom through service users and citizens. The position of expert knowledge, possessed by professionals, is greatly influenced and changed in the reforms. The governance reform calls for responsiveness and equal dialogue with service users, and it expects professionals to build services based on shared knowledge. As Sehested (2002, p. 1526) notes, this is a vital theme for research on reforms.

Furthermore, in light of the current governance reform, the changing role of professionals cannot solely be examined through marketisation. The key is hybrid governance; the partnerships go beyond formal contract-based agreements to partnerships between professionals and citizens across their different roles (Bovaird, 2007; Pestoff, 2014, Torfing & Triantafillou, 2014). The framework of Brandsen and Honingh (2013) captures how the public management reform – from classic public administration to NPM and NPG – affects the work of public service professionals. All in all, ‘shifts in governance’, as the authors call them, have widened the operating environment of all professionals. The communities for interaction include a set of different actors. In the NPG type of governance, legitimacy still stems from professional standards, but also increasingly from inter-organisational networks. In the same way, the autonomy of professionals is contested in those networks.
Table 1. Professionals and three subsequent types of governance (drawn from Brandsen & Honigh, 2013, p. 882).

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<td>Structured by a professional community</td>
<td>Contested within professional bureaucracy and managerialism</td>
<td>Contested within a collaborative network and citizen/client co-producers</td>
</tr>
</tbody>
</table>

The framework of Brandsen and Honingh (2013) is also used as a point of departure to further examine the legitimacy of professionals in (collaborative) governance settings focusing specifically on citizen co-production. The next sections present preliminary ideas on how expanding relations between professionals and civil society affects the legitimacy of professionalism in the welfare state.

**Co-production and the shifting idea of professional expertise**

Professional training and education have traditionally given professionals the authority to use discretion. Expertise has been seen as a way to separate professionals from other kinds of workers and laymen (Brandsen & Honingh, 2013). As seen in Table of Brandsen & Honingh (2013; here, p.6), professionals have been able to operate in professional and organisational settings.
The changing role of the citizen as a patient (in health care), as a citizen and as a consumer has affected the three logics of service delivery: professionalism, bureaucracy and marketization (Duyinvednak et al., 2006, p. 122). The authors emphasise the changing role of professionals, especially in relation to the citizen-consumer and the professional. As the authors note, professionals have been seen as opponents in this evolving relationship and have been left alone to cope with the new (at times conflicting) demands of the consumer citizen.

The latest shift of collaborative governance has turned client-citizens into co-producers and co-deliverers of services. Here, the task of the professional shifts gradually from service delivery to the coordination of citizen involvement in policy programmes (Loopmans, 2006). In the same way, professional expertise is contested not only by professional communities or managers (as in the managerial models), but also by citizens and other stakeholders. The underlying idea of professional expertise based on technical skills is questioned (see Brandsen & Honingh, 2013; Kreber, 2016; Sullivan, 2000). Co-production also builds on public professionals looking beyond pure technocratic thinking and appreciating citizen-users’ practical knowledge based on their experiences (cf. Bovaird, 2007; Osborne & Strokosch, 2013).

Moreover, the bottom-up pressure comes not only from the individual service users, but also from a wider community (Botero. Paterson & Saad-Sulonen, 2012; Jones & Ormston, 2013, Taylor & Kelly, 2006). For instance, Taylor and Kelly (2006) emphasise that localism and other forms of community governance affect professional discretion, forcing them to position themselves into new structures and processes. As the authors indicate:

[T]his will put more pressure on professionals to familiarise themselves with the structures of governance and their impact on service delivery at street-level and the relationship between their own established statutory agencies and parish or neighbourhood governance (p. 639).

This idea also applies to arrangements where volunteering citizens contribute to the production of public services alongside professionals. Citizen-volunteers also possess valuable experiential
expertise and can thus produce new innovative insights for service delivery (Tuurnas et al., 2016). This raises the question as to how expert knowledge as a fundamental principle of public service provision is positioned in these arrangements.

If the role of professionals moves towards the coordination of services, it will require new professional competences (for an overview of professionals’ competences in co-production, see Steen & Tuurnas, xxxx). The coordinating role also questions the whole basis of professionalism, professional training and education (cf. Bovaird, 2007; Noordegraaf, 2015; Tuurnas, 2016). Accordingly, Duyinvendak et al. (2006, p. 8) pose a concerned question: ‘Knowledge, authority, morality, expertise and skills to deal with social problems: What exactly is lost when the professional logic is undermined?’

According to Noordegraaf (2015), professionals also remain experts in the collaborative environment professionalism just becomes more connected. As Noordegraaf (p. 201) presents, professionals can connect their expertise to inter-organisational networks and managers, clients and citizens and other external actors who are directly or indirectly linked to service processes (such as journalists, supervisory bodies and policymakers). This is a positive viewpoint for the future of professionalism.

Vamstad’s (2012) study brings an interesting perspective to examine professionalism in the context of the Swedish welfare state, which relies or has relied strongly on trained professionals to deliver public services. The case of childcare shows that a parent cooperative could organise the service with higher satisfaction rates from service users and staff compared to the same service provided by trained professionals. As Vamstad notes, ‘The results are, however, clear enough to suggest that there are no harmful effects of co-production on service quality. This is a bold enough conclusion and a new perspective for a system of welfare delivery so entirely reliant on the expertise of trained professionals for achieving service quality’ (2012, p. 15).

The study by Tuurnas et al. (2015), focusing on mediation service co-produced by volunteering mediators and professionals, indicates similar results from a different angle. In a case study of
mediation services in the context of Finland, the volunteers considered being more approachable for clients (the parties of mediation in this case). The interviewed professional social workers also highlighted the creativity of volunteers in offering solutions to reconcile victims and offenders.

As Henriksson, Wrede and Burau (2006) emphasise, the state has been a central institution in such ‘professionalisation projects’. In a liberal state, the professional (first and foremost) can freely represent the client. The context of the welfare state, however, complicates this concept. As Bertilsson points out, ‘such a loyalty becomes more difficult in the welfare state where the medical doctor has to mediate between the concern for the patient and the abstract citizen body. What is good for all is not necessarily best for the individual’ (1990, p. 131). This notion draws attention to the role of professionalism in maintaining and producing public value.

Civic/democratic professionalism as the ‘fourth logic’

Civic professionalism (also referred to as ‘democratic professionalism’) is viewed as a way to (re)build trust between society and professionalism (Sullivan, 2001). The concept emphasises civic-mindedness, expecting that professionals will use their professional expertise to address public problems in order to benefit the wider community (cf. Sullivan, 2005). Principally, their role as protectors of public value is viewed as a means to legitimise professionalism (Duyvendak et al., 2006). However, co-production blurs this previously distinct boundary, as professionals must seek to balance the private value of individual clients and the creation of public value – factors that can, at times, be at odds (Alford & O’Flynn, 2012). Moreover, as Kremer and Tonkens point out, ‘defining public good is no longer a task for professionals, but it is shared with clients’ (2006, p. 132). This empowerment of clients (or in a wider sense, of citizens) thus questions the legitimacy of professionals to act as shepherds of public value.

Kreber (2016) notes, highlighting market values such as freedom of choice in the public sphere, that other explanations underlying the decrease in public trust have been searched in the ideology of liberalism. Indeed, ideological liberal values (such as marketisation) also challenge civic professionalism. Here, the case of the commercialisation of schools is an illustrative example (Wilkinson, 2007). As civic professionals, teachers play a key role in ascertaining and protecting
the ideals of civic education. Similarly, other professionals are significant actors in balancing social or public value and shareholder value (e.g. Hill, Lorenz, Dent & Lützkendorf, 2013). The increase in accountability has also been considered to influence a decrease in public trust (Kreber, 2016).

To conclude, the question of value is essential for understanding the changing legitimacy of the professional. Bertilsson (1990) has stated that in the Nordic Welfare state model, professionals have been legitimised to look after and ensure citizens’ social rights. Amidst the transformation of the welfare state and the quest for active citizenship within, the discretion of professionals to define value seems to change.

**Professionalism as public authorities in hybrid governance**

Public accountability can also be viewed as a way to legitimise professionalism. However, accountability also becomes more difficult to define in hybrid service systems in which the roles of professionals and citizens intermingle (Duyvendak, Knijk & Kremer, 2006; Hupe & Hill, 2007; Tuurnas et al., 2016).

For example, collaborative governance arrangements in public service delivery change the work of public service professionals. New partnerships and networks function with quite different dynamics when compared to the old, producer-centred ideals. Ongoing structural changes in societies and the mixing of the roles of different service producers, professionals, volunteers and users create a new, more complex environment in which to produce and deliver public services. In this kind of environment, the coordination of shared responsibilities and issues of accountability becomes ever more important (see Bovaird, 2007; Fotaki, 2011; Hupe & Hill, 2007; Osborne, 2010; Rhodes, 1997; Romzek & LeRoux, 2012). Hupe and Hill (2007) argue that in multi-dimensional governance, public power and public accountability are exercised by various actors in various scales and on the street level.

Lindberg (2013) has thoroughly analysed this concept to clarify the core idea of accountability. According to him, some forms of accountability can be seen as sub-types of accountability – meaning that they stem from the root concept but are not accountability in a classical sense.
These sub-types include professional accountability, audit accountability and client-patron accountability. The different types vary in the strength of control, the source (internal-external) of control and the spatial direction of accountability relationships (Lindberg, 2013). However, this does not necessarily mean that these types of accountability are less meaningful. Especially in hybrid governance arrangements, more informal forms of accountability become significant for inter-organisational and interpersonal cooperation (Romzek & LeRoux, 2012). Indeed, in more organised co-production models within civil society, different coordination mechanisms (e.g. markets, hierarchies and networks) are established to coordinate the work of professionals. This is especially the case in the field of care and welfare (Noordegraaf, 2015; Pestoff, 2014).

Based on the literature on accountability, there are different forms of accountability that involve professionals. First, public-administrative accountability is based on vertical relations between professionals and managers as well as politicians (Hupe & Hill, 2007). However, the principal-agent model is inadequate in hybrid governance arrangements. In governance, the positions of ‘accountors’ and ‘accountees’ may be contingent (Bovens, Schillemans & Hart, 2008; Klijn & Koppenjaan, 2004; Laegreid & Mattei, 2013; Willems & Van Dooren, 2011).

Second, professionals are accountable to their peer workers at both the intra- and inter-organisational levels of service systems. These professional accountability relations are horizontal, and the core of accountability is based on professionals’ expertise (Considine, 2002; Hupe & Hill, 2007). Horizontal accountability can be ‘fuzzy’, complex and conflict-driven, however, as the principle-agent setting is missing (Considine, 2002; Schillemans, 2011). Third, participatory accountability relations take place between professionals and citizens (Hupe & Hill, 2007). Especially in governance, citizens’ and service users’ roles as co-producers seem to change the legitimacy of professional practices (Brandsen & Honing, 2013).

Fourth, Considine (2002) brings out the concept of process-centred accountability. These types of accountability relations can be recognised especially in networks, clusters and co-production. Accountability is not related to questions of compliance (legal strategy) or performance. Rather, the accountability relations become ‘a matter of organisational converge (cultural strategy)’ (2002). Thus, the process is instrumental for organisational learning and feedback. However,
these kinds of cultural processes are difficult to define and measure. Despite limitations concerning measurability, process-centred accountability can be considered an important way to mitigate the accountability gaps in co-production processes (Considine, 2002). For the professional, process-centred accountability may mean opening up closed professional communities in terms of regulations and norms (cf. Brandsen & Honingh, 2013).

Here, the role of the professional – acting as a node between management and citizens – is crucial (cf. Tuurnas, 2016). In co-production, the simple principle-agent models are insufficient to explain the complexity of accountability relations. Process-centred accountability brings out the importance of shared processes, highlighting learning and feedback in network relations instead of focusing merely on legal accountability ties. As it has been discussed, professionals must share their power with citizens beyond having to account for their performance. The unidirected relationship between professional public service producers and recipients, which builds on users’ trust through professionals’ and citizen-users’ consent, thus transforms into a partnership-like relationship.

Conclusions

The relations between the state and the citizens are altering in the modern societies (Pestoff, 2012). The managerial models of the 2010s, such as public value management, digital era governance and collaborative governance, emphasise different aspects of public-sector reform, but they all converge in highlighting active citizenship, citizen responsiveness and bottom-up legitimacy (Greve, 2015, p. 60; Pollitt & Bouckaert, 2011). Co-production thus exemplifies a broader societal change and leads to re-evaluating the ways the relations between the state and society are changing (see Bailey, 2011; Bovaird, 2007; Brandsen & Pestoff, 2006; Eriksson & Vogt, 2013; Fotaki, 2011; Osborne, 2017; Perry, 2007; Pestoff, 2012; Ryan, 2012). Here, welfare state professionals are seen as representors of the state.

I therefore asked, ‘How is the legitimacy of welfare state professionalism shaped by citizen co-production?’ To sketch answers to this question, some inferences have been drawn. Based on the above literature review, it can be said that the ideal of active citizenship included in the
collaborative governance reform (and co-production as a key model within) changes the position of professionalism in society in the following two ways.

First, the position of professional expertise and knowledge is changing in co-production models, as co-production models build on public professionals looking beyond pure technocratic thinking and appreciating citizen-users’ experiential and practical knowledge. This idea also applies to the service models where volunteering citizens contribute to the production of public services alongside professionals. Therefore, the professional’s role as a shepherd of public value is altering in co-production models, as the professional must seek to balance the private value of individual clients and the creation of public value, which at times can be at odds with each other. This is a highly important question concerning the future of professionalism. Freidson (2001, p. 222) has expressed his concern about the possibilities of professionals to use their knowledge for the public good:

Professionals have a claim of license to balance the public good against the needs and demands of the immediate clients or employers. Transcendent values add moral substance to the technical content of disciplines... While they should have no right to be the proprietors of the knowledge and techniques of their disciplines, they are obliged to be their moral custodians.

Although Freidson’s notion expresses concerns for de-professionalisation, Duyinvendak et al. (2006, p. 8) note that some of the elements of NPM may even foster professionalism. For instance, the authors remark that accountability may help to better clarify (to professionals themselves and to society) what they are doing, why and what the results of their activities are.

Noordegraaf (2016, p. 801–802) captures the consequences of the (e)valuation of professionalism in a connected and hybrid service environment:

Whereas traditional professional values were clearly ‘professional,’ that is, set and regulated by professional fields themselves, such as quality, reasonableness, and equity, current values are much more ambiguous and less predefined. Professional behaviors might also relate to values like efficiency, impact, and evidence, which were traditionally
seen as alien. Whereas we tended to judge professional acts on the basis of procedural effectiveness (‘operation successful, patient died’), currently we tend to judge professional behavior on the basis of outcome effectiveness (did it work?), accountability (can you show it?), and legitimacy (do we trust it?).

Second, accountability relations become messier in co-production models, as widening forms of accountability question the traditional top-down, unidirectional relationship between professional public service producers and recipients. This creates countervailing powers and complex accountability relations between citizens and professionals and challenges the role of professionals to use discretion and make decisions about the public good (Considine, 2002; Hupe & Hill, 2007; Romzek, 2000; Romzek & Leroux, 2013).

Furthermore, the two lines of inquiry (accountability and expertise) can be further set in Evetts’ framework (2013, p. 788), which categorises two different forms of professionalism in knowledge-based work. First, questions related to accountability invite further study of organisational professionalism, where the discourse is linked to ‘rational-legal forms of authority and hierarchical structures of responsibility and decision-making’ (p. 787). The widening forms of accountability and hybrid service models based on co-production between professionals and civil society create a new angle to examine organisational professionalism. Then again, the discourse on occupational professionalism is linked to the debates concerning professionals’ expertise and their role as shepherds of public value. Here, the change of professionalism can be observed ‘from within’ rather than ‘from the outside’ (e.g. from organisational or managerial units; see Evetts, 2013, p. 2).

Many additional questions arise from the literature. How does one balance user-centred experiential knowledge and expert knowledge to produce public good? How do professionals themselves see this change? And how does this change shape the public service system (in the context of the welfare state)? Accordingly, the next phase of this research is to seek answers to these questions from an empirical perspective.
As pointed out, professionals are not only passive objects of change; they themselves play a role in defining professionalism (Duyvendak et al., 2006, p. 7). The next steps of the research thus include empirical data collection by gathering and analysing empirical data from professional unions, associations and educational institutions. This focus is based on the hypothesis that these institutions hold vital information about the current state of professionalism in society, as they safeguard the position and rights of professionals. Unions, associations and educational institutions also act as nodes between professionals and policy-makers. The data collection will be limited to social and health care professionals working on core welfare state tasks (cf. Ferlie & Geraghty, 2005).

The idea is to also contextualise the data collection in different societal and administrative systems. This strategy will help ensure that the research findings are not limited to a single country. The different societal contexts will also be used to understand similarities and differences in trends concerning the ‘state’ of professionalism.

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Leading co-production: Three leadership styles and how they affect the quality and public value of co-production processes (Anne Tortzen)

This paper presents work in progress. Feedback and suggestions are very welcome.

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Introduction

Currently, co-production is on the public governance agenda in a range of European countries. Establishing collaboration and partnerships with citizens by engaging local communities and civil society in developing, designing and producing welfare services is seen by public sector actors as a way to generate better outcomes and public value (Bovaird & Löffler, 2012), thus aiming at innovating – and potentially transforming - western welfare systems.

The paper contributes empirically to the literature on co-production by analyzing three co-production cases set in a Danish context, i.e. a universalistic welfare state characterized by an extensive degree of decentralization, a relatively big, well-functioning public sector and a strong well-organized civil society (Sørensen & Torfing, 2009; Voorberg, Tummers, et al., 2015). It hereby adds to the empirical literature on co-production, the majority of which draws on an Anglo-Saxon and North European (Dutch, Belgian and German) context. The study analyzes three Danish co-production cases at the municipal level selected on the basis of a positive extreme logic as they are launched as part of an ambitious strategy in municipalities that may be considered ‘frontrunners’ within this field.

The paper offers an analysis of co-production from a governance perspective, thereby conceptualizing co-production as a form of pluricentric governance (Hughes, 2010; Rhodes, 1996). Central to this understanding is the notion that the state no longer monopolizes societal governance in the way it used to do, but must rely upon, and cooperate with, other actors, organizations and powers in order to ‘get things done’ (J. Torfing, 2006).

This development challenges managers in public organizations and underlines the need for leadership styles that facilitate collaboration and cooperative problem solving (Ansell & Gash, 2012; Van Wart, 2013). Current research underlines the central role of leadership in supporting interaction in governance processes involving a wide range of different actors (Ansell & Gash, 2007; de Jongh, 2013; Keast & Mandell, 2014; Klijn, Steijn, & Edelenbos, 2010; Koppenjan & Klijn, 2004). Thus, the leadership dimension is pivotal in co-production processes. This paper argues that leadership is essential for the quality and public value of co-production processes and sets out to identify different leadership styles and examine how they influence co-production processes.

Research in the field of co-production is characterized by a range of different approaches and research traditions (Brandsen & Honig, 2016) focusing primarily on the motives for co-production, the organizational perequisites for effective co-production, and the impact of co-production (Verschuere, Brandsen, & Pestoff, 2012). However, with a few exeptions (Pestoff, 2016; Schlappa & Imani, 2013, 2016; Tortzen, 2016) research within this field has not given much attention to leadership of co-production, leaving a gap to be explored by this study.

Leadership in co-production processes is explored through a lens of historical institutionalism perceiving co-production initiatives as an attempt to introduce a temporary collaborative arena in a context of hierarchical governance, i.e. introducing elements of network governance ‘in the shadow of hierarchy’ (Scharpf, 1997; J. Torfing & Triantafillou, 2011). The argument here is, that co-production initiatives – like other forms of collaborative governance - operate in a ‘hybrid democracy’ (Edelenbos, Van Buuren, & Klijn, 2013; Koppenjan & Klijn, 2004; van Meerkerk &
Edelenbos, 2013) and are thus subject to governance and institutional tensions. This places
public actors in an institutional cross pressure (Barnes, Newman, & Sullivan, 2007) which they
cope with through different leadership styles. Leadership styles that in turn affect the quality
and public value of the co-production process. The paper identifies three different leadership
styles, i.e. a divided, a linking and a selective leadership style and raises the following questions:
What characterizes the different leadership styles executed by public actors in co-production
processes? And how do they affect the quality and public value of co-production processes?

The paper is divided into five main sections. The first section outlines the theoretical concepts
for the analysis defining co-production and leadership and conceptualizing quality and public
value of co-production processes. The paper then briefly presents the strategy for case
selection and presents the three Danish municipal co-production cases. The third section
describes and characterizes three different leadership styles identified in the co-production
processes. While the following section discusses how these leadership styles influence the
quality and public value of the co-production processes. Finally, in the last paragraph, the paper
draws conclusions and suggestions for further research.

Theorizing co-production quality, public value and leadership

This section outlines the conceptual framework for the analysis, defining the concepts of co-
production and leadership and conceptualizing the quality and public value of co-production
processes.

Defining co-production

In this paper I apply the term co-production to designate collaboration between a variety of
public and civil society actors on both the input and output side of the policy circle (Andersen &
Espersen, 2017; Bovaird & Löffler, 2012; Pestoff, 2012). In line with the New Public Governance
approach (which I will unfold in the next paragraph) I perceive co-production as a potential
transformation of the roles of both civil society and public sector actors and the distribution of
power and influence among them. This ‘transformation’ discourse on co-production is present
among researchers and practitioners framing co-production as a ‘shift of paradigms’ in public
governance (Boyle, Coote, Sherwood, & Slay, 2010; Durose, Mangan, Needham, Rees, & Hilton,

I define co-production in the following way based on a definition by Bovaird & Löffler (2014, p.
2): public actors and citizens collaborate to make better use of each other’s assets, resources
and contributions to achieve empowerment, better outcomes or improved efficiency. In line
with central definitions of co-production (Brudney & England, 1983; Ostrom, 1996) this
approach stresses the democratic and relational elements of co-production and includes the
following three constitutive elements of co-production as practice: 1. Active participation by
relevant and affected actors, 2. A degree of collaboration and 3. A degree of synergy. These
dimensions will be further elaborated later in this section and applied in the analysis of the
quality of co-production processes.
The paper assumes that leadership of co-production processes will be characterized by conflicting notions of co-production stemming from different governance logics. It will examine how public actors cope with these governance tensions by developing different leadership styles. In the following I will unfold two conflicting notions of co-production stemming from two conflicting approaches to governance.

**Two different notions of co-production**

Through time scholars have ascribed the concept of co-production different and sometimes conflicting meanings. This can be understood in the light of the different governance paradigms, which have influenced the term since it was first developed by Orstrom et al. (2012; 1981). The claim here is that public managers leading co-production processes are acting in a cross pressure between different approaches to governance and thus to co-production. For the purpose of this study, I will focus solely on two of the three dominant governance paradigms identified in public administration research (Pollitt & Bouckaert, 2011), i.e. the New Public Management (NPM) and the New Public Governance (NPG) paradigms, as co-production takes up only a marginal role in the third paradigm, Traditional Public Administration (Pestoff, 2016).

These two governance paradigms build on different principles for coordination and organization of public governance and are based on different views concerning the relation between the state, the market and civil society. They also spring from profoundly different assumptions about the roles of public administrators, politicians and citizens and what the relation should be between the public sphere and the civil society (Moynihan & Thomas, 2013). While NPM is based on the notion of hierarchy and separation (unicentric governance), NPG stresses collaboration and equality (pluricentric governance). Empirically, the different governance paradigms exist as ‘sedimented layers’ in public governance (Greve & Ejersbo, 2013; Pollitt & Bouckaert, 2011). The two governance approaches may be understood as mental models or ‘institutional logics’ with inherent norms on sense-making, leadership and decision making that influence the role perception and behavior of the actors in governance processes (Pollitt & Bouckaert, 2011; J. Torfing, 2013; Waldorff, Kristensen, & Ebbesen, 2014).

**The NPM approach to co-production**

NPM constitutes a variety of reforms and governance initiatives introduced since the 1980’s as a reaction to the static governance ideal of TPA (Hood, 1991), that sees the market as the central governance principle. An important endeavor is to make governance more efficient and user-friendly by introducing methods from private enterprises. In this approach co-production is seen as a way to enhance the quality and effectiveness/efficiency of the public sector through targeting public services better and possibly achieve innovation. Thus, co-production is perceived as a possible answer to austerity in the production of welfare services. The NPM notion of co-production takes place at the output side of the public policy circle, i.e. between professionals and service users. The traditional division between policy and administration is
thus maintained. This notion of co-production is characterized by economic rationality and a functional perspective that perceive citizens and users as rational, benefit maximizing actors (Jakobsen & Andersen, 2013; van Eijk & Steen, 2014). The value of co-production is measured in terms of specific, measurable results (output), related to formulated goals (Voorberg, Bekkers, & Tummers, 2014).

The NPG approach to co-production

NPG designates a movement away from a hierarchical form of governance evolving around the state, towards a more pluricentric form of governance where a diversity of other societal actors contribute to governance (Hughes, 2010; Rhodes, 1996). In this approach network is the central principle of governance, and the state is considered an open system collaborating with external actors on solving concrete governance tasks through co-governance (Osborne, 2006, 2010; Wagenaar, 2007). Co-production understood as a form of co-governance between public actors and citizens/civil society is at the center of this governance approach. Co-production may take place both on the output and input-side of the political circle and include a wide range of public as well as private actors, i.e. individual citizens, local communities and civil society organizations. Civil society and citizens are perceived as active partners in network governance and development of the welfare society (Osborne, 2010; Pestoff, 2008). This notion focusses on the social and political dimensions of co-production and stresses the democratic and empowerment potentials as a form of ‘public value’ (Bovaird & Löfler, 2012; Richardson & Durose, 2013). ‘Soft’ outcomes such as enhancing social capital, networks and relations between actors are seen as valuable in this understanding, which also stresses the possibility of redefining the roles and power relations among the actors, thereby achieving innovation (Boyle & Harris, 2010; Cahn & Gray, 2012).

The table below summarizes the main points in the two conflicting notions of co-production:

Different notions of co-production

<table>
<thead>
<tr>
<th>Governance paradigm</th>
<th>New Public Management</th>
<th>New Public Governance</th>
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<tbody>
<tr>
<td>Central governance principle</td>
<td>The market</td>
<td>Network</td>
</tr>
<tr>
<td>Co-production</td>
<td>A means to obtain efficiency and effectiveness</td>
<td>A central governing mechanism</td>
</tr>
<tr>
<td>Purpose</td>
<td>Tangible results: Efficiency, quality, user satisfaction</td>
<td>Intangible results: Public value in terms of social capital, trust, empowerment</td>
</tr>
</tbody>
</table>
Defining the quality of co-production

The notion of ‘co-production quality’ is derived from the definition of co-production applied here. It comprises on the one hand the ‘democratic quality’ of the co-production processes (Vanleene, Verschuere, & Voets, 2016) in terms of inclusion of civil society actors and their possibility of exerting influence. Researchers highlight a ‘sense giving’ leadership style that helps the actors develop a common understanding of challenges and possible solutions as pivotal to the quality of collaborative processes (Ospina & Foldy, 2010; Page, 2010).

And on the other hand the quality of the collaboration designated by the degree of ‘collaborative advantage’ in terms of synergy achieved in the co-production process (Huxham, 1996). The notion of synergy is central to co-production comprising two dimensions: A product dimension and a relational dimension. Co-production processes are supposed to integrate the resources and contributions offered by different actors and thus to accomplish results that could not have been reached by one actor alone. This constitutes the production dimension of synergy. At the same time co-production aims at developing qualitatively different relations between public bodies and civil society/citizens. Thus, the relational synergy in co-production stems from the potential transformation of roles and changes in the distribution of power between actors in the co-production process. I will thus measure the quality of the co-processes according to the following three criteria: 1. The role and influence given to society actors in the co-production process? 2. The degree of product synergy in terms of integration of resources and 3. The degree of relational synergy, i.e. transformation of roles and redistribution of power among actors.

Defining the public value of co-production

Co-production researchers point to the fact that the value of co-production processes is difficult to evidence and that, consequently, the evidence base for co-production is relatively weak (Durose, Needham, Mangan, & Rees, 2015). Empirical research in co-production shows that the value of co-production is primarily to be found in different forms of ‘public value’ (Bovaird, 2007; Bovaird & Löffler, 2012; Needham & Carr, 2009; OECD, 2011), which according to Bovaird & Löffler (2012) may contain several dimensions, i.e. value to the user and a wider group (network, family) as well as social, environmental and political value.

To conduct a robust assessment of the ‘public value’ created in the three empirical co-production processes I will combine the following three evaluation parameters: 1. A traditional evaluation: To which extend did the co-production process fulfill the objectives formulated by the public actors? (Dahler-Larsen, 2016), 2. A participatory evaluation: How did the different stakeholders evaluate the benefits of the initiative? (Durose et al., 2015; Glasby & Beresford,
2006) and 3. A ‘theory of change’ type evaluation: To which extend did the co-production initiative contribute to the type of societal change and value anticipated in the ‘transformation discourse’? (Dahler-Larsen, 2016; Durose et al., 2015). Taken together, these three parameters will measure the degree of ‘public value’ of each of the three co-production initiatives. Before jumping to the analysis, however, I will present the paper’s definition of leadership.

**Defining leadership**

The study explores leadership executed by public actors in publicly initiated co-production processes. Drawing on Hartley & Bennington (2011, p. 5), I define leadership as “a set of processes concerned with mobilizing action by many people towards common goals, and the framing of those goals”. This understanding of leadership encompasses leadership of inter-organizational groups and networks that may be enacted not only by formal leaders, i.e. public managers, but possibly by a range of different actors (Hartley & Benington, 2011; Nye, 2008; Van Wart, 2013).

In line with historic institutionalism (Lowndes & Roberts, 2013) the paper perceives public actors as ‘situated agents’, i.e. actors whose identity and rationality is shaped by the social and political institutions and communities they are part of and take for granted. Institutions condition and limit the actions of leaders, but not in a deterministic way (Barley & Tolbert, 1997). According to this view, public actors – including managers - act according to a ‘logic of appropriateness’ in terms of a perception of what is ‘the right thing to do’ in different situations (March & Olsen, 1995) and develop strategies to cope with the clashes, contradictions and complexities of governance (Waldorff et al., 2014). The claim of this paper is that these coping strategies result in different leadership styles executed by public actors in co-production processes. Before jumping to the analysis, however, I will present the cases and method applied in the empirical analysis.

**Three Danish co-production cases: Case selection and method**

This study draws on three empirical co-production initiatives from three Danish municipalities, i.e. Holbæk, Roskilde and Ikast-Brande. The cases have been selected according to strategic considerations permitting logical deduction (Flyvbjerg, 2010). The strategy for case selection is described in the following.

Denmark has been selected as an expected positively extreme case on co-production based on three characteristics of the Danish welfare society: Firstly, the Danish welfare system is characterized by an extensive degree of decentralization, as the municipalities count for 65 % of the welfare expenditure. Public administrators and politicians at the municipal level, thus, have strong influence on the distribution of welfare resources and thereby a possibility to ‘deliver’ and to respond to the needs and citizens and other actors (Klausen, 2014; Voorberg, Tummers,
et al., 2015). Secondly, governance in Denmark is characterized by a relatively big, well-functioning public sector as well as a strong well-organized civil society organizations and a long tradition for citizen and user involvement. Thirdly, in an international perspective the Danish society is characterized by a relatively high degree of trust (Svendsen, 2012) as well as a low power distance and a low level of inequality. Based on these institutional and cultural characteristics I expect to find conditions favorable to co-production in the Danish welfare governance.

The three municipalities have also been selected based on the logic of ‘positively extreme’ cases. Currently, the co-production agenda is strongly expressed at the local government level, as many Danish municipalities are active in realizing the ambition of co-production through strategies and initiatives. The three municipalities included here can be described as ‘front runners’, as they have all launched strategic and ambitious initiatives under the heading of ‘co-production’. The specific co-production initiatives included have been selected according to the logic of ‘maximum variation’, as they represent a variation in terms of welfare sectors and the institutional and leadership set-up of the co-production initiatives. This case selection strategy strengthens both the reliability and transferability of the results (Merriam, 2009; Neergaard, 2010).

The three co-production cases

The three cases have all been initiated, framed and facilitated by the municipality as part of a strategic ambition, categorizing them as cases of ‘top-down’ co-production.

*The Holbæk case* unfolds in the area of children and youth and is framed by the municipality as developing a new democratic dialogue between public actors and citizens/civil society about political and economic priorities. The initiative was launched as part of the strategy ‘Holbæk I Fællesskab’ (‘Together in Holbæk’) to strengthen and innovate local democracy. All in all, four so called ‘change groups’ including a variety of public and private actors were established with the task of pointing to possible savings in their specific sector. In this paper I focus on the ‘change group’ working with children and youth and discussing economic priorities within the field of schools and kindergartens. This case can be perceived as a case of co-governance (Pestoff, Brandsen, & Vershuere, 2012) involving citizens and other stakeholders in the decision making and planning of public services, i.e. on the input-side of the political circle.

*The Roskilde case* is a community initiative labelled ‘Zebra City’ based in a vulnerable public housing community in the City of Roskilde. It is framed by the municipality as a way to develop stronger networks and social capital among the local inhabitants. The initiative springs from an innovation strategy developed by the city council. The Zebra City case may be considered a relatively ‘mature’ initiative, as two rounds of Zebra City projects have already been carried out in other local areas in the municipality of Roskilde. It is organized as a cross-sectorial project managed by a project manager. The initiative can be depicted as a ‘co-management’ initiative aiming at developing a local community through co-production (Pestoff et al., 2012).

*The case from Ikast-Brande* unfolds in the area of elderly care and is framed by the municipality as an as innovation initiative that aims at saving 20 % on the administration of elderly services by getting the elderly citizens to do more of the work themselves. The case springs from the
'Mental Frikommune' ('Mentally free municipality') strategy formulated by the municipality that aimed at preparing the municipality for welfare challenges of the future through ‘radical innovation’. The initiative was designed and facilitated by a team of external consultants according to a predefined concept, i.e. the Creative Idea Solutions concept (CIS) involving professionals from a range of different departments within the elder sector. This initiative is a case of co-production framing individual citizens as co-producers of their own welfare service (Pestoff et al., 2012).

The three case initiatives included in this study have all been organized as projects and limited in time. While the initiatives in Holbæk and Ikast-Brande lasted 4-6 months, the Roskilde case extended over two years. The first two cases were studied – as far as possible - from beginning to end, while the Roskilde case was studied for a period of approx. one year. During the data collection period observation studies were conducted of selected events and meetings, interviews were carried out with all groups of actors involved and policy documents were collected and analyzed. In total 62 policy documents, 43 interviews and 42 hours of observation have been analyzed. All citations from interviews, documents and observations in the analysis stem from my PhD thesis (Tortzen, 2016).

**Identifying three leadership styles:**

**Divided, linking and selective leadership**

In the following I will unfold an analysis of the three different leadership styles executed in the three co-production cases. The leadership styles should not be understood as conscious strategies applied by the public managers. Rather, they describe the (more or less unconscious) strategies applied by the public managers to cope with the governance and institutional cross pressure which I have described as inherent in co-production processes. The three leadership styles are based on the analysis of three central leadership interventions performed by public actors in the three cases, i.e. framing of the co-production initiative, setting the objectives and including and mobilizing stakeholders in the co-production processes. The level of management involved varies among the three cases. Top management plays a central role in two of the cases, while the project leader is central to the leadership style in the third case.

**The case of Holbæk: A divided leadership style**

In the Holbæk case a so called ‘change group’ was established with an ambition of involving the relevant stakeholders in co-producing innovative solutions to the challenge of austerity in the children’s sector. I will characterize the leadership style of the public actors in the Holbæk case as divided, as the leadership interventions executed in this case were simultaneously drawing on a NPM logic and a NPG logic. Leadership of the co-production process was characterized by an ambiguous framing, conflicting objectives and an approach to selecting and mobilizing stakeholders drawing both on a representative and consultative NPM logic and a systemic and collaborative NPG logic.
Ambiguous framing of the ‘change group’

The Holbæk case was from the outset characterized by an ambiguous framing on the part of the top management. Two different storylines were presented, i.e. a ‘co-production’ storyline drawing on the NPG governance logic and an ‘austerity’ storyline drawing on the NPM governance logic.

The ‘co-production’ storyline framed the change group as an example of co-production and as a collaborative innovation initiative (Document, 19.12.13) that would enable organizational learning. This storyline depicted the initiative as part of an ambitious project to develop local democracy in Holbæk. This ‘co-production’ storyline underlined innovation and new forms of collaboration between politicians, citizens and other stakeholders. So the change group was framed as an initiative that depicts a whole new way of governing. Expressed in the following by the mayor of Holbæk welcoming the change group: (this initiative) must produce something more than just a better bottom line – it will help change the way we work as a municipality...we will join forces on the most important areas and develop a shared understanding of challenges and main tasks..” (Tortzen, 2016).

Whereas the ‘austerity’ storyline which was also applied by the public actors framed the ‘change group’ in the light of the economic challenge and depicts the challenges and possible solutions in traditional, administrative terms pointing to existing policies, forecasts and data produced by the municipality (Tortzen, 2016). In this storyline challenges were depicted as ‘well known’ and ‘possible solutions’ were described in terms of a range of ‘political choices’ prescribed by the administration. In line with this framing, the public administrators applied economic calculations which highlighted the saving potential in structural changes of the schools: “...we have been drawing and calculating – and have arrived at a plan, which makes it possible to save 21,5 mio d.kr. without lowering the level of service, through structural changes alone” (Tortzen, 2016). In this storyline, thus, the agenda was predefined by the public administrators, leaving only little room for the stakeholders to contribute their views of challenges and solutions. The economic agenda was predominant, focusing on the possible economic gains from the co-production process and downplaying the innovation and democratic agenda.

Torn between competing objectives

The divided leadership style was mirrored also in the public managers and politicians formulating two competing objectives of the change groups, one aimed at producing a tangible result (output) in line with the NPM logic, the other aimed at developing a new type of process and collaboration (outcome) in line with the NPG logic. The outcome objective was formulated as follows: “...to create a framework for a constructive collaboration among politicians, citizens, companies and other external stakeholders in establishing economic priorities ..... and to strengthen political leadership” (Tortzen, 2016).
The output objective was formulated in line with the framing of the change group as part of a ‘budget challenge’ and placing it within an ‘austerity’ discourse. Here, the main task of the group was described as: “To produce a final output consisting of one or more possible scenarios/models for the City Council to be used in the 2015-18 Budget” (Tortzen, 2016). This leadership style was characterized by a focus on ‘delivery’ on the one hand and on the other hand a focus on ‘deliberation’ (Skelcher, Mathur, & Smith, 2005). In the design of the process and the framing of challenges, tasks and objectives of the change group the public managers acted controlling and hierarchical in line with the NPM logic. Whereas their leadership style in facilitating meetings and dialogues between participants was aimed at developing trust and relations among the participants in line with an NPG logic.

Inclusion of stakeholders: Systemic and representative logic

The change group consisted of approximately 25 participants who were handpicked by the municipality and personally invited to join the group. The selection of participants was described by the municipality as based on ‘systems thinking’ in line with the NPG approach, the logic being “to include all groups of actors with an interest in or knowledge about the working theme of the group” (Tortzen, 2016). At the same time however, participants were selected on the basis of a ‘representative, consultative’ logic in line with a NPM logic. Parents, municipal employees and pupils were selected from among representatives in existing democratic organs in the involved institutions, e.g. parent councils of the schools and kindergartens and other existing consultative organs such as Holbæk Youth City Council and the Council of the Disabled. The civil servants did not succeed, however, in mobilizing representatives from local enterprises and leisure organizations to strengthen the diversity and creativity of the group.

Conclusively, this co-production process was characterized by the public actors executing a divided leadership style drawing simultaneously on a NPM and a NPG logic resulting in a certain degree of ambiguity in the framing and goal setting as well as inclusion of stakeholders.

The case of Roskilde: A linking leadership style

The Zebra City initiative took place in a ‘vulnerable’ public housing community in Roskilde characterized by social problems. It was aimed at empowering the local citizens and strengthening the social networks between local actors in the area by bringing them together in a range of activities. The ‘Zebra City’ initiative was characterized by a linking leadership style, which handled the inherent governance tensions in terms of conflicting frames and a multiplicity of goals by seeking to link the different actors, interest and resources. The project manager, who played a central leadership role in this initiative, was aware of the different interests and objectives to be handled in the process. Perceiving the complexity and multiplicity
of logics as a condition for co-production, this actor took on a role as ‘catalyst’ aiming at linking citizens and public administrators from different sectors with different interests, goals and resources through outreach and mapping and linking existing initiatives.

Conflicting framings of Zebra City

The framing of the ‘Zebra City’ by the top managers was characterized by two partly conflicting storylines i.e. a ‘network’ storyline drawing on the NPG logic and an ‘active citizen’ storyline drawing on the NPM logic. The ‘network’ storyline framed the initiative according to a New Public Governance logic giving the municipality a role of facilitating ‘network- and community-building’ and the ‘creation of synergy among local resources’. According to this ‘network’ storyline the role of the municipality was to help build strong local communities and networks: “The local communities must be strengthened, so that challenges can be solved locally and with the resources that are at hand” (Tortzen, 2016).

However, a competing ‘active citizen’ framing was introduced. Rather than focusing on the resources of local citizens and communities, this storyline focused on the active participation of citizens. It aimed at gaining legitimacy among local citizens for existing and future municipal welfare services and at developing active citizenship among the inhabitants. This storyline was influenced by the politicians, who were interested in strengthening the representative democratic institutions. It was expressed in the following way by the welfare director: “The aim of Zebra City is to support active local communities.. and at the same time to create a forum and a proximity between the city council and the local citizens..” (Tortzen, 2016). Based on this ‘active citizen’ storyline the public administrators formulated a range of specific output objectives of the initiative, drawing on a NPM understanding of governance.

Linking a multiplicity of goals

In spite of the Zebra City initiative being framed in terms of an NPG storyline focusing on ‘local networks’ the public managers decided on a number of performance targets measuring the output of the initiative in terms of specific activities and the number of citizens mobilized. Project targets were set in terms of a certain number of activities initiated locally, a certain number of citizens engaged in these activities and a wish to increase the number of citizens participating in existing local voluntary organizations: “The objective of the Zebra City project is to support local communities, develop the quality of life and accomplish at least three citizen-driven activities” (Tortzen, 2016).

The Zebra City project was characterized by a complexity of goals expressed by different actors. At least three political objectives were expressed for the ‘Zebra City’ project: Firstly the initiative should serve as a platform for the politicians’ meetings in person with local citizens. Secondly, it should help tie the many different local communities of the municipality together. And thirdly, the politicians hoped that this particular Zebra project would reduce the social vulnerability of the neighborhood and help getting it off the so called ‘ghetto list’. Applying a
linking leadership style, the project manager sought consciously to link and prioritize the different goals: “I was left with a multiplicity of goals, which I have elaborated on in an ongoing process. by prioritizing objectives that are meaningful in this context” (Tortzen, 2016). The linking leadership style consisted in facilitating collaboration among stakeholders on local activities and aimed at simultaneously meeting the municipal performance targets and contributing to the strengthening of local networks.

**Mobilization of stakeholders: Reach-out and linking existing initiatives**

Mobilization of stakeholders in this co-production process was executed through a linking leadership style characterized by mapping and linking existing initiatives, resources and actors in the local area and reaching out to key actors and marginalized groups in the area. Also, the Zebra City project was characterized by meetings open to everybody in the area.

The public administrators in Zebra City sought to link actors and resources in the area by reaching out to public institutions such as the local school and kindergarten, the nursing home and health center. This was considered a way of linking existing initiatives in the area such as health initiatives, a project of garbage sorting and plans for an urban garden. Other reach out activities included collaborating with employees of the local housing company and with local citizens engaged in other initiatives. Furthermore, a range of reach-out activities were executed aiming at including marginalized or vulnerable citizens such as ethnic groups and mentally vulnerable inhabitants from a local institution. In spite of this, a certain degree of ‘self-selection’ took place among the local actors, resulting in a relatively biased participation in the project. Citizens of other ethnic origin than Danish were clearly underrepresented in the Zebra City project.

Conclusively, the *linking* leadership style practiced by public servants in the Zebra City case was characterized by attempting to link together different actors, interests and goals through outreach activities and collaboration activities.

**The case of Ikast-Brande: A selective leadership style**

In Ikast-Brande the co-production initiative was aimed at budget savings in the administration of elderly care. Public managers in the municipality of Ikast-Brande applied a *selective* leadership style in coping with the conflicting governance logics. This strategy favored a NPM logic and was selective in that it ignored competing governance logics. It was executed by the top managers in spite of widespread disagreement and opposition among leaders in the organization arguing for other governance logics and notions of co-production. The selective leadership style was expressed through the top managements’ framing of the initiative and furthermore by their hiring a team of external consultants working according to an understanding of innovation focusing on economic savings and the introduction of new technology in line with the NPM logic. Finally, it was executed through selective inclusion of
stakeholders and through the execution of hands-on facilitation that built on distrust in the participants’ everyday experiences and ‘disturbance’ of their mental assumptions as a way to create innovation.

**NPM framing with a ‘twist’**

The co-production initiative in Ikast-Brande was part of a strategic project initiated by the municipality to redefine and develop the local welfare, which was framed by top management. Drawing on an NPM logic framing the major welfare challenges were framed as austerity and scarcity of labor. Thus, the aim of the initiative was expressed as “developing radically different, innovative solutions for the welfare of the future” (Tortzen, 2016). In line with this vision, this specific co-production initiative was framed by the public actors in terms of achieving radically different welfare solutions with less public spending. A central aim was to make the citizens ‘take over’ some of the work previously done by the municipality. The city manager framed the initiative as follows: “..we are shifting the welfare production … trying to make the citizens produce welfare themselves to a larger degree.. We are actually aiming at making the citizens do it themselves – to get rid of them as customers” (Tortzen, 2016).

The co-production initiative was at the same time, however, tinted by a competing, but subordinate framing describing the citizens as ‘resourceful and engaged’ and casting the active citizens as drivers of the welfare development. This frame underlined initiatives that aim at developing networks and social relations among citizens stressing ‘active citizenship’ and ‘social responsibility’: “you have arrived at the municipality, where engaged citizens drive the development through initiatives and focus on the interests of the community..” (Tortzen, 2016). Thus, the framing of the co-production initiative applied by public managers was dominated by an NPM logic spiced up with a ‘twist’ of NPG storytelling.

**Selective leadership focusing on ‘radical innovation’**

The selective leadership style was executed by the top managers of the municipality in a simple way, i.e. by applying a specific project concept, i.e. the so-called Creative Idea Solution (CIS-concept) executed by a team of external consultants that in practice came to execute leadership in this process.

The objective of the co-production initiative was set by the top managers in advance: To achieve savings of 20 % on the administration of elderly care through ‘radical innovation’. The specific ‘delivery’ of the co-production process would be a catalogue of innovation projects/ideas. The priority of the top managers was to launch a process that would result in a range of innovative ideas within a relatively short time span. Radical innovation was the driving ambition of the initiative. According to the city manager: “We need to create a radically different welfare – maybe for less money.. we need to do something different – something dramatically different” (Tortzen, 2016).
This selective leadership style gave priority to the NPM approach focusing on streamlining, innovation and technological opportunities. At the same time framing professionals and citizens as benefit maximizing actors that need to be ‘disturbed’ to be able to come up with innovative solutions. The top managers of the municipality thus ignored widespread skepticism among managers and public servants in the organization towards this NPM logic. They chose to proceed with the initiative following the CIS concept attempting to achieve innovation primarily through the introduction of new technology and self-service solutions.

Excluding and distrusting stakeholders

Mobilization and inclusion of stakeholders in the selective leadership style was characterized by the exclusion of central stakeholder groups. The elderly citizens that may be considered a central stakeholder group were assigned a weak and marginal role in the co-production initiative. The managers expressed doubt that the elderly citizens would be able to contribute to the objective of ‘radical innovation’ and the top managers saw ‘disturbance’ of the stakeholders mental pictures as a prerequisite for obtaining results.

The selective leadership style also resulted in another group of stakeholders, i.e. the professionals that work with the elderly on a daily basis, being partly excluded from the co-production process. Once again the argument was that these stakeholders were too closely involved in caring for the elderly and should thus be expected to oppose radically new solutions. The external consultant facilitating the process argued: “.. we know from experience that when technology substitutes human beings, we are in for beating. From the industrial field we have learned, that those who work there cannot be the ones to introduce new technologies – it has to be someone external” (Tortzen, 2016). Thus the selective leadership style resulted in de facto exclusion of two central groups of stakeholders, i.e. the elderly and the front line professionals, who were given a marginal role in the co-production process.

Conclusively, this co-production process was characterized by a selective leadership style giving priority to a NPM understanding of governance and co-production, which framed the initiative in terms of austerity and radical innovation and which excluded central stakeholder groups from the process.

Discussion: How do different leadership styles affect the quality and public value of co-production processes?

The analysis of the three co-production cases has identified three different leadership styles applied by public administrators in different levels in the organization, i.e. a divided leadership style in Holbæk, a linking style in Roskilde and a selective leadership style in Ikast-Brande. A central question, now, is: How do these leadership styles applied by public actors influence the quality and the public value of co-production processes? In the following I will discuss the ‘co-production quality’ of the three co-production processes characterized by different leadership
styles. For each of the three cases I will focus on the ‘democratic quality’ in terms of inclusion and influence and on the ‘collaborative advantage’ in terms of synergy. For each case, I will subsequently discuss the extent of public value created.

**Holbæk: Consultative co-production with limited public value**

The *divided* leadership style applied by the public managers in Holbæk meant that leadership in this case was exercised in an ambiguous way, drawing on both NPM and NPG approaches without reconciling them. This affected the quality of the co-production process in several ways. Although some groups (the young and community actors) were only marginally included in the process, the civil society actors were offered relatively good opportunities to participate and to speak, thanks to the facilitative leadership of the process inspired by a NPG logic. However, the possibility of the civil society actors to influence the definition of challenges and possible solutions in the co-production process was relatively limited.

The public managers reacted to the inherent pressure from the NPM approach to ‘deliver’ output (savings) within a relatively short time span by exercising a form of defining leadership which prevented the civil sector actors from taking a role of co-designers (Voorberg, Bekkers, & Tummers, 2015) of innovative solutions. The divided leadership style exercised in this initiative also prevented the resources of civil society actors from being taken into account, as the economic agenda was predominant. All in all the divided leadership style lead to a co-production process which I will characterize as scoring relatively low in both ‘democratic quality’ and in the degree ‘collaborative advantage’. This co-production case may be labelled ‘consultative’ (Needham & Carr, 2009), as the civil society participants were given a possibility to voice their needs and preferences, but no transformation occurred in the relations or distribution of power among the actors.

**Limited public value**

The co-production process characterized by a divided leadership style created a limited public value. The output objective formulated by the municipality, i.e. innovative ideas for saving 22 mio d.kr. on schools and kindergartens, was not accomplished by the ‘change group’. The group instead formulated a list of principles to be used in the political prioritization of the field. The outcome objective in terms of developing new forms of collaboration between the municipality and the stakeholders was met partly – and most successfully within the municipality itself, as the initiative succeeded in bringing employees, municipal leaders and politicians together in a dialogue on a specific welfare area.
This value is also reflected in the fact that the initiative scores relatively high in terms of participatory value, as the opportunity to discuss challenges and priorities with other stakeholder groups is valued by the participants. Particularly, the employees value the possibility of meeting up with parents and politicians to discuss. As one head of school says: “I believe in working in a more open and democratic form.. which gives more legitimacy than lying to the employees and the parents” (head of school) Generally, the stakeholders value the symbolic gesture of the municipality inviting them to participate in a dialogue – even if they are not given much influence on decision. So the co-production process does produce some value in terms of legitimacy.

However, in terms of the third assessment parameter, i.e. ‘transformational value’, this co-production process scores relatively low. There is no sign that the roles and power relations of stakeholders will be changing as a result of this initiative. Rather, the pressure to ‘deliver’ resulted in the public actors exercising defining leadership which in practice blocked the way for the framing and resources of other stakeholders to unfold in the co-production process, thereby limiting the collaborative and innovative potential of the process.

**Roskilde: Transformative co-production with some public value**

The linking leadership style applied in this co-production initiative resulted in the co-production process being open to all kinds of civil society actors. In spite of some challenges with mobilizing citizens of other ethnic origin, this co-production initiative managed to include a wide variety of civil society actors. Also, civil society actors were invited to participate early in the process and thus granted a role as ‘co-initiators’ (Voorberg, Bekkers, et al., 2015) of specific initiatives, although within the framing set by the municipality in terms of citizen driven activities.

An important linking leadership intervention in this initiative was to focus on ‘the common third’, i.e. specific and visible initiatives such as setting up a local choir, establishing an urban garden and a ‘fleemarket for nerds’. Through facilitating collaborative activities among citizens the initiative succeeded in simultaneously meeting the municipal performance targets and contributing to the strengthening of local networks and of individual citizens by serving as an opportunity for vulnerable citizens to take the role as co-initiators and - designers in co-production supported and facilitated by the municipality. All in all the linking leadership style lead to a relatively high score in both the ‘democratic quality’ and the ‘collaborative advantage’ of the co-production process, making it an – at least to some degree - transformative (Needham & Carr, 2009) co-production process.

**Some public value**

In terms of public value this initiative came out with a relative high score on public value. The objectives set by the municipality in terms of number of participants, activities etc. were fulfilled, mainly through initiating specific local collaborative activities among the inhabitants in the area.
The ‘Zebra City’ co-production initiative was evaluated mainly positively by the participants, stressing the development of stronger relations among the inhabitants across ethnic groups as well as among the public servants working in the local area. By facilitating collaborative activities among local citizens, voluntary organizations and public administrators, this initiative succeeded in linking different actors, goals and interests. The urban garden is an example of a citizen-initiated and –driven project which according to one of the initiators, a woman with a severe stress diagnosis, would not have been realized without the ‘Zebra City’ initiative: “I would not have been able to do this on my own. Many of us have scratches, cracks and dents, but we give what we have.” (Tortzen, 2016).

When evaluated in terms of the contribution to societal changes, this project, like the other two initiatives assessed here, scores relatively low. This is due to the relative isolation of the initiative as well as the scope, which has created value in a relatively limited area for a relatively limited group of people. Also, the initiative has succeeded only to some degree to build bridges between inhabitants of Danish origin and inhabitants with other ethnic backgrounds. The initiative was relatively successful, but at the same time unfolded relatively isolated from the practice of the municipality as a whole, i.e. in a ‘safe area’ (Aagaard, Sørensen, & Torfing, 2014). Therefore, it is not likely to fundamentally influence or change the roles or relations of public servants in general.

Ikast-Brande: Enforced co-production with little public value

The selective leadership style exercised in the Ikast-Brande case resulted in a co-production process characterized by the NPM governance logic. In this case the co-production framing was used by top management to sugarcoat an initiative aimed at achieving budget savings through radical innovation such as digitalization and the introduction of welfare technology. The top managers applied a selective leadership style, not intending to co-produce with citizens and other actors, but rather to co-opt these actors into an agenda decided by the municipal top management.

The affected and relevant civil society actors such as the elderly citizens were given a marginal role in the process and thus were not granted the opportunity to influence the co-production process. Also, the top managers chose to ignore competing governance logics and notions of co-production advanced by other actors which resulted in a low degree of ownership and anchorage of the initiative among the public servants. Thus, the ‘democratic quality’ of this process scores very low.

In terms of ‘collaborative advantage’ this initiative also scores low. A catalogue of innovation ideas was produced, but it lacked anchorage among the relevant actors inside and outside the organization thus having very little chances of being implemented. Also, no the leadership style did aim at achieving synergy by empowering civil society actors or changing relations or roles among the participants. Instead, the selective leadership style was rooted in a notion of co-production that corresponds with what Pestoff calls ‘enforced’ co-production (Pestoff, 2016) and Ulrich (2016) depicts as co-production ‘making the citizens accountable’. This approach sees co-production as a possible way of substituting public welfare services. All in all, the
selective leadership style based on a NPM governance logic did not support the quality of the co-production process in terms of democratic quality and synergy.

**Low score on public value**

In terms of public value, the Ikast-Brande case scored low on fulfilling the objectives set by the municipality. The goal to save 20% of the administrative budget was not fulfilled through the co-production initiative. An idea catalogue with a range of innovation projects was produced in the process, but owing to a low degree of ownership and anchoring in the organization, these ideas were not implemented. Also, further investments were needed to realize these radically innovative project suggestions.

The participant value of the process can be described as relatively low, as several of the participants both among employees and leaders express doubts at the value of the innovation ideas and particularly at the possibility of them being implemented in the organization. Expressed by one of the participating civil servants: “I wonder, how much benefit will come from this – and if we will take it further. We are a busy department, you know, with many ongoing tasks...”. Some participants, however, point to value created by ‘disturbing’ the mental pictures of the employees and developing their understanding of feasible innovative changes in the field of elderly care.

Finally, this initiative scores very low on the transformative dimension of contribution to changing the roles and power relations of actors, as co-opting citizens rather than empowering them was the focus of this NPM inspired leadership style.

**Conclusion**

The three case studies analyzed here offer a number of insights into the relation between leadership and co-production. As the three co-production cases have been selected according to an ‘extreme positive case’ and a ‘maximum variation’ logic, the conclusions drawn may be generalized analytically to other top-down co-production cases.

The study aims at contributing to the research field by exploring the link between leadership and co-production. Based on the current ‘transformative’ discourse applied by public managers and researchers on co-production, the study sets out to investigate, how the leadership styles exercised by public actors influence the quality and thus the ‘transformative’ potential of co-production processes. A main assumption of the study is, that co-production can be understood as ‘hybrid’ governance processes attempting at introducing collaborative elements in the shadow of hierarchy.

Examining three top-down co-production initiatives from Danish municipalities, this study has shown how different notions of governance and co-production are inherent in co-production initiatives placing the public actors exercising leadership in an institutional cross pressure.
The study has identified three different leadership styles applied by public actors in coping with the institutional cross pressure, i.e. a divided, a linking and a selective leadership style. While the divided leadership style is torn between a NPM and a NPG governance logic, the linking style attempts at linking the two logics, and the selective leadership style prefers one logic, i.e. the NPM approach, oppressing other governance approaches.

The aim of the study has been to examine the effect of the three different leadership styles on the quality and public value created in the three different co-production initiatives. To this end, notions of quality and public value has been developed and operationalized. The quality of co-production processes are assessed on the basis of ‘democratic quality’ and ‘collaborative advantage’ in terms of product and relational synergy. While public value of co-production processes has assessed applying the following three parameters: goal fulfillment, participant benefit and degree of transformation.

Based on the analysis of the three co-production initiatives, the study concluded that the leadership style exercised by public actors in the co-production process is pivotal to the quality and public value of co-production processes. The exercise of leadership interventions rooted in a New Public Management regime, i.e. strict deadlines, measurable deliveries and mistrust in employees and civil society actors, does not support collaboration between autonomous actors. These interventions, to the contrary, influence the collaboration negatively, causing a low quality of co-production to unfold. A ‘pressure to deliver’ inherent in the NPM approach influences the leadership style of civil servants in terms of exercise ‘defining’ leadership by establishing and maintaining the public agencies’ framing of the challenge, the legitimate actors and possible themes and solutions to be included in the co-production process. This lack of ‘sense-giving’ leadership exercised by the civil servants tends to reduce the quality and public value of the co-production process.

On the other hand leadership interventions rooted in a New Public Governance regime, i.e. building trust and relations between the participants and focusing on resources and on sense-giving leadership, do seem to support co-production processes. The study concludes that the best results in terms of quality and public value are obtained through a linking strategy applied by the civil servants, which reflexively copes with the pressure by linking interests, actors and governance logics in co-production processes. This is in line with other research in the field of network governance and collaborative governance which points to ‘linking leadership’ as conducive for collaboration between autonomous actors (Bekkers, Tummers, & Voorberg, 2014; Klijn et al., 2010; van Meerkerk & Edelenbos, 2013).

The paper has highlighted the importance of focusing on the leadership dimension of co-production. A further research agenda should include further elaboration of the concepts of quality and public value of co-production as well and the relation between them. Also a further
elaboration is needed of different leadership styles exercised in different kinds of co-production processes (levels, sectors, different actors), more in-depth analysis of leadership interventions by different actors involved in such processes, e.g. politicians, top civil servants, street-level employees and citizens and other stakeholders, respectively.

**Literature**


Using leadership theory to define variables for the analysis of co-production mechanisms (Schlappa, Mason, and Imani)

Paper presented to the IIAS Study Group

Co-production of Public Services

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Using leadership theory to define variables for the analysis of co-production mechanisms

Introduction

One of the problems in co-production (CP) research is that theories, analytical frameworks and models are applied or related to different parts of the public service system without making clear distinctions as to which parts of a process or organisation they are specifically relevant for. For example, analysis of co-production in schools draws on CP theory in regard to the relationship between regular and citizen co-producer and then applies the same analytical frame to a discussion of the barriers and facilitators of CP in relation to institutional contexts (Porter 2012). Pestoff’s studies on childcare (Pestoff 2006, 2009) applies CP theory to analyse interactions between professionals and parents as well as to the institutional and also the policy context in which CP activity is embedded. In regard to health care services Loeffler et al (2012) apply CP theory to one-to-one CP situations, the health care service system, professional development as well as government policy. Alford (2009), similarly, applies CP theory to organisational systems and structures as well as the individuals who work in them.

While the malleability of CP as a theoretical framework supports many methodological approaches and is applicable to a very wide range of services, organisations and problems, the arguments resulting from academic enquiry appear to lack specificity which would make practitioners and policy makers do things differently. For coproduction research to have a substantive impact on praxis requires addressing not only the question of ‘how does co-production work?’ but ‘for whom does it work, in what circumstances and why?’ to generate more contingent and qualified findings. To this end we need to be more explicit and specific as to the unit and level of analysis we are dealing with when exploring CP. For example, if we were to apply the framework put forward for the co-authored book on CP developed by this working group (Steen, Verschuere, and Brandsen forthcoming) we need to ask the following questions:
Is the analysis of the design or planning of CP focused on the interactions between actors that constitute the planning or design process, or is the analysis concerned with the context in which design and planning happens? In both cases we are aiming to understand how CP works, but have two very different foci, one is concerned with the actual interactions between individuals and the other with the organisation in which this happens. The analysis of the context is of course important to understand co-production because the same CP activities play out differently according the context in which they happen. To put it a different way, implicit in the notion that context matters is the assumption that what works well in one setting can be a disaster in another. The core challenge this paper seeks to address is the capacity for co-production theory to shape the practice of co-production in diverse and complex public service contexts. This relates not only to the need to extend the range of models, theories and frameworks, but to recognising how the significance or relevance of the broader body of scholarly work on co-production is mediated by, and within, diverse systems of practice. This is not to say that they are mediated simply by the existence of diverse services. Rather, the potential for co-production theory to impact on practice is mediated by how the efficacy of different approaches to leading and participating in forms of co-production is interpreted through these practices.

There is a whole host of organisational theory that would help us explain why one context supports the achievement of desired outcomes, while another does not. For instance, Tidd (2001) conceptualises the interactions between environmental contingencies, organisational configuration and different degrees and types of innovation to account for the variations in innovation management of ‘best practice’. This resonates with established theory on the ‘fit’ of practices in understanding the context-structure-performance relationship (Drazin and Van de Ven 1985, Van de Ven, Ganco, and Hinnings 2013). What these areas of theory acknowledge is that the organisational fit of particular models of practice is governed at least in part by the contingent nature of the context in which practice occurs.
Co-production encourages, and perhaps requires, a more relational perspective, one that is concerned with the processes through which individuals interact to plan, design or deliver a service. These mechanisms tend to be complex and difficult to observe, but it is interest in these mechanisms which are a key driver of research. The rapid proliferation of co-production research has produced insights into how co-production plays on in relation to policy, partnerships, organisations, groups, teams and individuals but there is a lack of integrating perspectives or frameworks that would help us explain the mechanism through which services are co-created and co-produced. In addressing the challenge for bridging co-production theory and practice this paper seeks to explore potential indicators to explore the ‘hidden mechanism’ through which co-production principles are mediated. To achieve this we draw on theories that have specifically sought to address both the plurality of leadership that is characteristic of CP and the context specificity that underpins the concerns highlighted in the introduction. Then, drawing on literature concerned with the development of skills thought to facilitate DL, we propose a number of variables that would allow us to locate, analyse and assess the CP mechanism.

Relational Accounts of Leadership to Explore the Co-production Mechanism

The main theories which privilege relational over individual and institutional accounts of leadership are distributed leadership (DL) and shared leadership. These are often used interchangeably but each offers distinctive and useful perspectives on the process. We therefore present the salient points relevant for our purposes briefly below.

Distributed Leadership

The collective nature of co-production fits well with ideas about sharing responsibility for and determining the way of co-producing a service. The emphasis that the concept of co-production places on inter and intra-organisational collaborations suggests that the power to control, direct and assess the CP process should be seen as relational and interdependent, in contrast to assuming CP occurs between independent individuals and actors where one has
superior knowledge, resource or power over the other. DL is a useful perspective for the analysis of the mechanism of service co-production because it builds on social constructionism which perceives reality as the multiple subjective and intersubjective constructions that emerge through the interactions of individuals, as well as organisation theory, which focuses on processes, rules and power relations which shape these interactions.

DL provides a lens to penetrate the ‘fixed geometry of bureaucratic organisations’ (Lelievre-Finch 2010) and broadens the analytical gaze beyond the agency of powerful individuals tackling challenges arising from conflicting logics, diffuse power relationships, and blurred institutional boundaries (REF). But the study of co-production requires an extension of the distributed leadership perspective because this theory is premised on the principle that leading is shared and shifting among regular producers of an organisation - the notion that citizens are among those who enact leadership functions is not acknowledged in the DL literature.REF It is important to acknowledge this limitation because citizen co-producers are not professionals, yet professionals would share leadership functions with citizens if they are expected to contribute more than basic functions, taking their medicines for example or filling in their tax return. Citizen co-producers are perceived to have superior knowledge of the problems they encounter and access to skills and resources which when combined with the capabilities of service organisations are supposed to generate superior services and outcomes. However, citizen co-producers are not bound by organisational controls in the same way as regular producers are, i.e. they cannot easily be made to perform the role of co-producer if they don’t want to contribute; neither is their contribution predictable, easily regulated or likely to fit into particular procedures and performance measures public service organisations maintain. These are important reasons why traditional leadership theory struggles to support the exploration of the key challenges of co-production, given that socially constructed norms governing diverse co-production processes are not characterised by rigid or easily determined boundaries, structures or relations.
Research on DL has been advanced primarily by scholars in the health-care, education and organisation management sector but compared with mainstream leadership research this body of research in relation to public services is limited despite there being a very wide range of theoretical perspectives on leadership in the public administration literature (see Van Wart 2003, Van Wart 2013). Co-production is not purely an intra or an inter-organizational activity to which contemporary leadership models such as networks or collaborative governance could be applied. In most cases, co-production takes place or requires to happen in a space that in varying degrees is influenced by the service provider’s organizational context and culture while it can also be influenced by the space inhabited by the citizen co-producers, such as in homes, community or day-care centres. Thus each space is likely to display unique characteristics that ought to be taken into account when co-production is explored. To this extent the physical contexts involved in co-production represent one key variable in understanding the unique conditions affecting the application and implementation of particular approaches. However, whilst DL theory has typically not sought to address the specific physical contexts in which CP may take place, it offers a potential mechanism through which to understand how conditions impact on the relations and interactions through which the leadership of CP emerges. Spillane (2006) highlights the differences between collaborated distribution (individuals work together in time and place to execute leadership routines), collective distribution (individuals work separately but interdependently to enact leadership routines) or coordinated distribution (individuals work in sequence in order to complete leadership routines). The development of theory in this area demonstrates the potential value to the deconstruction of the contexts in which co-production is manifest. To this extent established CP theory may be better positioned to impact on practice according to the assumptions underpinning the necessary conditions involved in the mediation of particular activities, responsibilities and physical contexts.

Extending this, DL theory offers insight into the variety of mechanisms through which patterns of leadership are developed. For example, MacBeath et al (2004) identify that distributed leadership can have its roots in formal distribution (i.e. through its delegation), pragmatic distribution (i.e. through negotiation and division between actors), strategic distribution (i.e. shaped by the
inclusion of people with specific skills or knowledge), incremental (i.e. where leadership is progressively enacted against experience), opportunistic (i.e. the ad hoc acceptance of responsibility) or cultural (the natural and organic assumption and sharing of responsibility). Similarly, Leithwood et al (2006) consider how leadership is distributed in such ways that can either lead to ‘alignment’ or ‘misalignment’ based upon the extent to which the resulting formations of responsibilities within groups of actors achieve shared group purposes, and do so efficaciously.

Although service co-production tends to focus on a certain part of a service system or specific aspect of service provision, explorations related to specific spaces where co-production happens can be quite focused and less demanding than a systemic analysis of the overall activities of service provider organizations, as suggested by Bovaird and Loeffler (2012). But co-production practice generates its own complexities even in focused interactions, as case studies of co-productions in adult social care illustrate (Allen 2012, Wells and Griffiths 2012), because regular and citizen co-producers not only come from diverse educational and experiential backgrounds, but they also collaborate within pre-determined institutional settings, and although regular producers might retain some autonomy, citizen co-producers remain outside service organizations’ direct managerial control. In exploring the differences between distributed and democratic forms of leadership Woods (2004) highlights how democratic rationalities require creative spaces that allow for movement between tighter and looser structural frameworks. This inherent dynamism entails remodelling the creative human capacities that enable traditional tensions between instrumentally-rational and affective capacities. Such forms of democratic pluralism thereby open up traditional boundaries to participation by challenging institutional assumptions regarding the social structures through which leadership is enacted. Second, contemporary studies of co-production overlook theories and models of leadership in public administration literature that promise important insights directly relevant to improving our understanding of co-production. Specifically concepts from relational leadership studies (Ref) which draw on distributed leadership theory (Thorpe, Gold, and Lawler 2011, Gronn 2002a, 2009) are highly relevant for our purposes because studies of co-production assume that control and
power resides with independent individuals or groups, therefore leadership is assumed to occur when independent agents encounter each other. Furthermore, these studies imply that professionals seem to assume that co-production could, more or less, mirror the way they deliver the regular service.

The discussion so far is intended to show that leadership theory promises a fruitful perspective to guide the exploration of CP mechanisms. In addition, the case has been made here that leading co-production requires a different approach to leading professional teams, organisations and networks if the expertise knowledge and resources of citizen co-producers are to be harnessed. The problem is that we do not know what regular and citizen co-producers should do more of, or avoid doing, to bring about a collaborative process of service co-production. There are a number of conceptual as well as practical challenges. First, actors who intend to co-produce services cannot be considered independent from each other because their interdependence shapes the contexts as well as the process through which service outputs and outcomes are produced. Hence any exploration of the co-production process needs to acknowledge that two very different type actors who have different and perhaps conflicting motivations and expectations need to make sense of the purpose, means and outcomes of their collaboration. Second, citizen co-producers are not bound by organisational controls in the same way that regular producers are, i.e. they cannot easily be made to perform the role of co-producer if they do not feel able or reluctant to do so; neither is their contribution easily regulated or likely to fit into particular procedures and performance measures public service organisations maintain to manage and support their professional staff. Hence leading co-production requires a different approach to leading professional teams, organisations and networks if the expertise knowledge and resources of citizen co-producers are to be harnessed. Third, questions about leadership are not confined to managerial and organisational issues. Where co-production is the declared aim, the exploration of how regular and citizen co-producers lead the process goes to the heart of questions aimed at understanding how co-production mechanisms work.
**Shared Leadership**

The discussion above positions the mechanism that mediates effective public service co-production in the relation between the professional(s) and the civil actor(s). The discussion has highlighted how variation in the conditions of those relations is of significance to understanding how responsibilities and activities can be distributed in differing configurations. If such configurations of leadership are central to the co-production relation then the approaches to understanding leadership must equally be located in the various possible formations in which leadership can be ‘shared’ (Gronn 2002b).

Sharing leadership implies that no single individual shares or distributes all their responsibilities with others, but that everyone in the group/relationship has an opportunity to undertake leadership functions and that overall responsibility for leading the process is shared and supported by all involved. This means that while individuals have specific roles and responsibilities associated with their main function, leadership roles and actions emerge. Importantly, equality of opportunity emerges as a consequence of antecedent network structures (also characteristic of DL theory), which represents a key distinction from the maintenance of traditional public management structures through which CP is often initiated (Carson, Tesluk, and Marrone 2007, Osborne, Radnor, and Nasi 2013). Unlike hierarchical approaches whereby an appointed leader assigns and co-ordinates tasks, sharing leadership functions involves some degree of autonomy yet mutually interdependent task performance. Mutual interdependence refers to reciprocal dependence between two or more actors which allows and facilitates complementary and overlapping responsibilities. The practice of sharing leadership is a collective effort which extends to all involved who exercise initiative to stimulate action, influence others and give direction. This allows participants to make use of different skills, resources and strengths (Gronn, 2002, p.433), but it is also largely spontaneous, responding to dynamics and opportunities generated by participants in the initiative. Innovation-driven organisations have been found to spontaneously pursue collaborative, lateral and inter-organisational initiatives in ways which make it difficult for any single decision maker of organisation to monopolize power and authority (Pearce and Manz 2005). An example of
such spontaneous collaborative modes of service CP is ‘Social Prescribing’ set out later on in this paper.

*Leadership, Relating and Interaction*

In relation to the current paper’s concerns, underpinning both the literatures on DL and shared leadership are common roots in the locating of leadership between the actors involved in relevant instances of co-production. To that extent the identification of the mechanisms through which ‘optimal’ models of CP might be implemented is in part dependent on the role of interacting and relating through which ‘distribution’ and ‘sharing’ are possible. Making sense of the world involves assuming that realities are ‘multiple local-historical constructions’ made through language, non-verbal gestures and artefacts (Van der Haar and Hosking 2004, p.1020). These perpetually constructed realities suggest that individuals make sense of their experiences and create meaning, not only in interactions with others but also in silent conversations in their own minds, hence human beings are both social and individual at the same time (Simpson 2009, Mead 1934, Stacey 2001). Furthermore, social interactions are mediated through not only verbal language but through what Mead (1934) termed ‘social symbols’ the practices and symbols that have social meanings which are understandable to some individuals but not to others. Through the experience of working together, regular and citizen co-producers are bound to create some shared social symbols - ‘how things are done’- and other common understandings that they identify with. Overtime, both regular and citizen co-producers could develop some common significant symbols which would then provide a means for developing shared practices. However, this may lead regular producers to assume that citizen co-producers also understand and accept symbols they are familiar with and cherish, which is not often the case as contemporary research shows. The citizen co-producers, on the other hand, also come with a wide range of important symbols which they share with groups they belong to, and which may not be compatible with those used by professionals. To this extent for cohesive and socially-maintainable forms of co-production to emerge depends in part upon the
establishment of relevant forms of trust required to mediate the diverse methods through which patterns of leadership might develop (Kong, Dirks, and Ferrin 2014).

Reflecting the discussion in the previous section, empirical studies show that sharing leadership practices has important implications for sharing and discussing information in organisations and groups, for example where groups with a directive/hierarchical leadership arrangement shared less information than those with shared leadership (Mehra et al. 2006). Co-ordination of knowledge sharing requires the development of a common language, mutual understanding and a mindset which sees the open-ended, flexible division of labour as a shared responsibility. Mindsets are shared by individuals and groups and based on assumptions about what human beings are like, how society works and what an ideal world would look like. These sets of values, attitudes and beliefs are difficult to change and at the heart of most contestations in the workplace (Bolden et al. 2015). However, resistance to accepting? Acknowledging? a relational approach to leading public services is not only rooted in the comfort and certainty traditional models leadership promise to people in the workplace, lack of formal authority in co-ordinating work activities is likely to give rise for increased power struggles and conflicts between individuals or groups. In the absence of traditional leaders, deadlines might not be kept and decision making processes may slow down due to a lack of clearly defined roles and responsibilities. Furthermore, misunderstandings due to lack of shared understanding and mindsets might cause lack of cohesion within and across teams and individuals, which would mean that consensus is more difficult to establish thus making the service providers less effective and productive. However, literature on leadership development in public service organisations points to a number of practices that facilitate or hinder the practice of shared leadership. Conceptions of the relational nature of leadership illuminate the importance of practices underpinned by reflective practice about leading the self, growth in connection with others and soft relational skills associated with coaching and mentoring others. These practices suggest that a shift in mindsets is required where we are privileging interdependence over dependence (Tuurnas 2016).
Drawing together the discussion on leadership above what has been presented is an understanding of the role of context, both in terms of the forms of service co-produced and the social conditions in which practice might achieve shared service aims. But building on the principles of sharing leadership we can develop a set of variables to locate, measure and highlight examples of CP mechanisms. In developing an account based upon the diversity of both the practical and social functions entailed by co-production the following section seeks to draw out how this might equip academics and practitioners with an understanding of the mechanism likely to mediate effective co-production.

**Towards a Conception of Variables that Mediate Co-Production**

Starting from the premise that leadership generally is characterised by actors influencing the direction of a deliberate process, and in doing so there is a mutual dependency between leaders and followers, we can begin to identify variables that would indicate the extent to which the collaboration between regular and citizen co-producers reflects a relational as compared to a hierarchical approach. The table below attempts to identify behaviours that are likely to foster or lead to resistance in adopting shared leadership practices. The idea here is that not all co-production situations can be led by adopting a relational approach, at times it might be necessary for either party to tell and explain in no uncertain terms what needs to happen, in the case of facing a medical emergency for example. Hence the columns here do not present binary choices, but should be seen as a heuristic to bear in mind the range of actions and responses possible and as a framework for assessing the extent to which observed behaviours support or hinder co-production efforts.
<table>
<thead>
<tr>
<th>Leading one another based on a relational perspective would entail</th>
<th>Leading the other based on a hierarchical perspective would entail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking</td>
<td>Telling</td>
</tr>
<tr>
<td>Conversations</td>
<td>Explanations</td>
</tr>
<tr>
<td>Trusting</td>
<td>Transacting</td>
</tr>
<tr>
<td>Reflective practice</td>
<td>Evidence based practice</td>
</tr>
<tr>
<td>Belief in collectivity</td>
<td>Belief in hierarchy</td>
</tr>
<tr>
<td>Shared responsibility</td>
<td>Self interest</td>
</tr>
<tr>
<td>Shared sense of purpose</td>
<td>Personal vision</td>
</tr>
<tr>
<td>Adaptive process</td>
<td>Rigid process</td>
</tr>
<tr>
<td>Emergent outcomes</td>
<td>Pre-defined outcomes</td>
</tr>
</tbody>
</table>

These variables would require further definition and could be presented in the form of Lickert scales to analyse and assess the CP mechanism. However, this could not be achieved within the time scale for this conference. As a substitute we offer a ‘rough and ready’ hypothetical application of these variables to the example of a social prescribing service currently piloted in one of England’s counties. The case presented below is based on a masters level dissertation undertaken at Hertfordshire Business School.

**The Example of Social Prescribing**

The involvement of civil society organisations is a widely established practice in the provision of state funded health services, for example in the form of self-help groups, care for the elderly and disabled, and supporting child and family health (Crampton et al 2001). Rees, Mullins & Bovaird (2011) argue that these services are usually designed to either address gaps in, or complement, existing state provided services. The involvement of the wider community is also
reflective of the wider social determinants of health and recognition of the many ‘wicked’ problems that require the coordination of multiple organizations (Kara 2014).

A recent development in this area is the practice of social prescribing. A key driver for social prescribing is the recognition that the social, economic and environmental determinants of health outcomes require a holistic response from multiple organizations (Kings Fund 2017). Trends towards greater patient involvement in decision making, and promotion of self-management approaches, reflect a growing recognition both of the value of patient self-knowledge in improving health outcomes and the financial/demographic demands on health services. Bodenheimer et al (2002) argued that chronic illness management required patient knowledge in order to identify which aspects of their condition had the greatest impact on their quality of life and should therefore be focused on. Wider patient involvement, such as shared decision making processes, also invoke the value of patient knowledge, especially in determining treatment for complex conditions (Dy and Purnell 2012).

Social prescribing involves primary care clinician referring patients to non-medical community or voluntary sector services to complement medical treatments and address non-medical determinants of their health condition (Kings Fund 2017). In some cases, such as the NHS Sefton ‘Arts of Prescription’ project, patients are referred by clinicians into a specific community service. Others, such as the Rotherham Social Prescribing Service, involve the NHS funding a liaison service that supported clinicians in primary care to refer patients into wide range of community-provided services (Dayson et al. 2016). These cases are all examples of community level co-production in which the resources and capabilities of the NHS, and community organizations, are being combined, with the aim of improving outcomes for patients. In Hertfordshire the NHS and local authority have created a shared co-ordinating mechanism, called the Community Navigator, which is intended to monitor progress of service users in connecting with other, non-clinical and often non-statutory providers. Their role is to support patients in self-diagnosing needs, possible responses to them as well as articulating and
acting on changes in their condition. This involves home visits, conversations and sign-posting, as well as arranging access to additional services deemed relevant to deal with the problems that have been identified and actions jointly agreed upon. The co-ordinator might arrange for a visit to a fitness class organised by a local residents association, a luncheon club run by the local church, a visit from the fire service to check on potential hazards in the home or a befriending service run by the local council for voluntary services.

Relating the variables presented above to the example of social prescribing it is easy to see that regular producers, such as the co-ordinators, clinicians, expert statutory and non-statutory providers would need to adopt practices from the left column, accepting that the process of social prescribing is by its very nature emergent, adaptive and spontaneous with a shared sense of purpose, collaborative and collegiate, flexible and shared with an emphasis on asking, reflecting and conversing. Whereas practices rooted in the right column are unlikely to support collaborative social prescribing, at times these more directive approaches may be necessary however. The variables presented in the table above are therefore not binary choices, rather they sensitise actors to the range of actions that may be encountered as co-producers attempt to plan, design or deliver a service.

**Conclusion**

Exploring how co-production works requires attention to interdependencies between individuals, organisations, service systems and networks. While the growing body of literature on co-production is advancing our understanding of these interdependencies, leadership is one factor that is often overlooked yet offers a valuable perspective on the actual mechanisms through CP is enacted. A stronger focus on engagement, building relationships and emancipation from traditional role models of professional vs service user is needed, together with privileging engagement over the efficient achievement of targets.

A social constructionist perspective allows us to explore CP from such a perspective as it encourages us to perceive leadership as shared and collective, rather than inherent in
individuals, shaping and being shaped by context and having shared sense of purpose and respect for desired outcomes. Such a lens fits well with contemporary notions of ‘public leadership’ whereby authority and responsibility associated with leading communities, public policy and organisations is distributed horizontally across and vertically within organisations (Brookes and Grint 2010). Hence leadership theory not only allows us to explore and explain what happens within public organisations, but also how the wider socio-economic and political context they are embedded in might impact on CP. However, more work is required to firm up and test the variables put forward here.
References


Towards passive co-production? The role of modern technologies in co-production (Lember, Surva, and Tõnurist)

(This is a very first draft, subject to considerable changes; please do not cite the current version without contacting the authors, comments welcome)

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Abstract
The article examines how modern technologies influence the core (but often unobserved) characteristic of co-production – citizen empowerment. For this, the article defines a continuum of co-production practices on an active/passive scale and ties it to different mechanism of empowerment. Utilizing a set of co-production cases worldwide (OECD 2017), the article analyses various forms that technology-enabled co-production can take and shows the role that citizens have in those various forms. Analysing citizen involvement in technology-based co-production is needed because it is important to acknowledge the risks and opportunities the ever-growing technological development brings to service co-production, citizen involvement and citizen-state relations.

Introduction
Digital platforms, sensor networks, blockchain, urban control rooms and other modern digital technologies are increasingly influencing the way co-production adds value to society and how co-production is implemented. These and other similar technologies are expected to lead to higher level of citizens’ participation and engagement and thus increase the legitimacy of government and contribute to more inclusive policy-making (Meijer 2012; Noveck 2016). Digital technologies are said to create new co-production practices (Townsend 2015) and make it more collective (Bovaird and Löffler 2010). They provide an additional channel for public service support, access to citizens’ experiences and collective intelligence; they can have a social and emotional function, enhance the effectiveness of service delivery and increase citizens’ satisfaction (Meijer 2012; Linders 2012). Most fundamentally, the use of digital solutions in co-production is expected to considerably empower citizens as they enable shared sovereignty and
responsibility (Noveck 2016; Linders 2012). These possibilities are often postulated, but rarely tested empirically.

Thus, the important question arises whether the digitally enabled initiatives actually enforce ‘active participation’ or rely on ‘passive’ citizen participation, i.e. in some cases co-production becomes an inherent feature of the process and not a matter of choice (Brandsen and Honingh 2015). Instead of active, voluntary participation in service provision, citizens are being ‘captured’ into co-production because of the nature of overall service-provision (Bovaird et al. 2015ab). Rapidly diffusing algorithmic governance and platform-based solutions seem to influence the trend towards the latter. The preliminary evidence suggests that much of the citizen engagement in technology-driven modes of co-production happens on the side of co-delivering and not co-creation (co-planning, co-design etc., see Bovaird and Löffler 2010). In studying the contemporary developments under the so-called smart city movement, Kitchin (2016) has argued that technologies that influence directly the citizen-government interactions are “top-down, centrally-controlled and managerialist in orientation, often introduced by bureaucrats (city managers) rather than elected officials or being developed in conjunction with local communities.” Most ICT-enabled communication (through social media or government websites/platforms) are still uni-directional – there is very little two-way interaction, feedback and communication with citizens (Mergel 2013). Rather than creating new social practices and empowering citizens, the new technologies may reinforce the existing social structures and organizational routines or even redistribute power to other societal stakeholders such as private sector (source of technologies) or public bureaucracies (source of control) (see e.g. Kornberger 2017; Cardullo and Kitchin 2017).

As technological change is generally path-dependent and cumulative by its nature where innovations tend to emerge in clusters and where (apparently) successful innovations reinforce further developments in the same direction (Fagerberg 2005), the current trends may, contrary to widely held expectations, significantly increase the role of ‘passive’ and ‘minimal’ co-production (Pestoff 2006; Bovaird and Löffler 2015). Therefore, the new technologies bring the question of ‘active’ vs. ‘passive’ co-production to the fore. This leads us to our research question: do citizens get empowered through the process of technology-enabled co-production and if so, then how?

Based on the original in-depth analysis of a large set of co-production cases worldwide (OECD 2017), the current paper explores if and to what extent there exists a trend towards passive co-production, how new technologies influence the evolution of ‘passive’ vs. ‘active’ co-production and what the emerging consequences are. Before the empirical investigation, the paper first outlines what ‘empowerment’ in the context of co-production means, and discusses how technology potentially affects citizens and directs their engagement towards ‘active’ or ‘passive’ participation.

The essence of co-production: citizen participation

Public services have traditionally been provided by public sector organizations to citizens, having the latter take the role of customers. In such a setting, there is a risk that citizens are
given or they take a passive, as opposed to participatory, role in service provision (Paarlberg 2007; Gofen 2015). With the move away from considering service users as ‘add-on’ to the service provision process towards seeing service users as an ‘inalienable component of public services delivery’ (Williams et al. 2015, 5), co-production has become the ‘heterogeneous umbrella concept’ (Jo and Nabatchi 2016) that seems to capture the benefits of citizen participation both to the state and the citizen.

Through increased citizen participation, co-production can bring cost savings, mobilize resources, activate communities, expand choices, increase efficiency and effectiveness, raise service quantity and quality, and enhance legitimacy of government (Clarke 2005; Pestoff 2006; Bovaird 2007; Needham 2008; Pestoff 2012; Osborne and Strokosch 2013; Williams et al. 2015). Furthermore, over time, co-production has taken a pivotal role in public service delivery, expected to lead to effective performance and service innovation (Osborne and Strokosch 2013). As such, co-production of services often takes place out of necessity to face social challenges neither the citizens nor government can solve on their own (Pestoff 2012: 16). Actor engagement in many cases is a micro-foundation for value creation in service provision (Storbacka et al. 2016; Surva et al. 2016). Indeed, service provision in general is something that cannot exist without citizen involvement (Bovaird 2005); citizen participation has an effect on service outcomes and vice versa, it can turn citizens into active self-sustaining individuals (Ostrom 1996; Clarke 2005; Brandsen and Pestoff 2006; Fledderus et al. 2013; Gofen 2015). As such, co-production is increasingly seen as a topic of ‘civics’ — as a gateway to ‘active citizenship’, which states can encourage, if not impose, upon its subjects (Newman 2010; Bovaird et al. 2015ab).

Without going deep into definitional issues well outlined in previous studies (Nabatchi et al 2017; Voorberg et al. 2015), co-production can be understood as a continuum of activities from co-design, co-planning, co-managing, co-commissioning, co-implementation to other joined up activities between the state and the citizens (e.g., Bovaird and Löffler 2012; Frow et al. 2015; Brandsen and Honingh 2015). Ideally, citizens should be involved in service planning, design, commissioning, managing, delivering, monitoring as well as evaluation (Bovaird 2007). Arguably, citizen influence is the biggest in the early stages of co-production as they can, through their preferences, impact service design and development (Williams et al. 2015). The paradox is that citizens are more likely to engage in co-production when participation has been made relatively easy, the service is seen as something salient and there is no need for much interaction with third parties, even though better payoff for the citizens as well as public sector institutions may come from collective activities (Pestoff 2012; Bovaird et. al 2015b). The more collaborative processes become, the more the time demands skyrocket — dilemma which arguably cannot be solved by technological tools alone.

Most academics would assume that co-production has to include a relationship between citizens and the public sector and citizens’ input has to be ‘active’ (e.g., Bovaird 2015b; Brandsen and Honingh 2015). However, opinions differ with regard to the need for participation to be voluntary or implicit (Tõnurist and Surva 2017; Nabatchi et al. 2017). Some authors (e.g., Osborne et al. 2016) do not see this as a prerequisite to the co-production process. While others (Bovaird 2007, 855) argue that citizens need to be empowered to engage, because without clearly defined and accessible rights, involvement in co-production will be
difficult (see also Whitaker 1980). As such, co-production can take many forms, e.g. it can range from positive to negative, co-operative to compliant, active to passive as well as individual to collective (Pestoff 2006). It can also range from systemic (full) to minimalist (Bovaird and Löffler 2015). In many cases, however, these different continuums do not receive adequate attention in academic debate. For one, there is a general belief that citizen engagement will lead to empowerment, which will lead to positive effects — e.g., better service impact, rise in civic efficacy and democracy — especially in the ‘public value’ stream of the co-production literature (Nabatchi et al. 2017, 2). In rare cases the effects are actually measured or empowerment defined.

Empowerment — the critical unobservable of co-production

Empowerment is a complex notion that often is left undefined in co-production literature. The concept has roots in civil rights and women’s movements, the ‘social action’ ideology of the 1960s, the ‘self-help perspectives’ of the 1970s and community psychology of the 1980s, acknowledging the person as a citizen within the political as well as social environment and leading to a movement in the 1990s of greater control by citizens in many areas of life (Rissel 1994, 40). It is a notion closely linked to citizen participation, fostering stronger interpersonal relationships, feelings of personal and political efficacy, individual confidence and competence (Florin and Wandersman 1990). Consequently, being empowered relates to political awareness, social action, the right to say and to have a say, recognizing oneself and being recognized as competent, and the use of power itself (Breton 1994). 3 It is important to note that exercising power cannot take place in a situation of total structural determinism (Lukes 2005, 57-8).

In the context of co-production, empowerment is needed to enhance the level of engagement, customization and personalization, but also to increase trust towards organizations and decrease various risks related to service provision (Teichert and Rost 2003; Rajah et al. 2008). Consequently, empowerment is said to promote democratic governance, increase participation in decision-making, offer a channel for citizens to have greater influence on and control over their lives, motivate people to care about their local community, and encourage citizens to develop social capital (Rissel 1994; Peters and Pierre 2000; Fledderus et al. 2013). It is also seen as key to transforming individuals into citizens who are able to have a holistic perspective on societal governance and through self-development, giving people more opportunities to shape the services they receive (Sørensen 1997; Bandura 2001), making them capable to have a greater say in the way they interact with the society and state. Active involvement in the service delivery process plays a crucial role in evaluating the service as a whole (Fledderus et al. 2013), because being part of the process improves the understanding of service provision and gives the opportunity to hold public organizations accountable. Involvement also influences the perceived quality of the service (being aware of the nuances and difficulties of service provision), which can lead to higher levels of trust for public service providers (Bouckaert and van de Walle 2003). As such, interactions between citizens and service-providers become an essential value of democratic governance in terms of direct representation, public

3 By the narrow definition of power, the concept relates to the way – by action or inaction – the powerful secure compliance over those they dominate (Lukas 2005).
accountability and legitimacy (Clarke 2005; Paarlberg 2007; Needham 2008; Bartels 2013; Gofen 2015).

Sørensen (1997) explains that there are two options of empowerment available for citizens: exit (whenever alternatives are available) or voice (to change the situation rather than escape). The exit option does not provide substantial influence on processes, whereas the voice option gives more information about the distribution of preferences and is likely to promote a feeling of loyalty among members, which will postpone exit. Similarly, Jung (2010) refers to user ‘choice’ and ‘voice’, where the latter can be seen as a positive and empowering idea (with the caveat that through the atomisation of the consumption experience, inequalities can be increased leading users to associate choice with risk and uncertainty instead (e.g., Tõnurist and De Tavernier 2017)). Comparing these taxonomies to the broader definition of empowerment, it becomes clear that some dimensions are not accounted for: ‘choice/exit’ or ‘voice’ do not speak to the increased political awareness of citizens nor recognition of their competence from the state; the taxonomy seems to imply the use of power through either inaction, action towards alternatives or having one’s say. As such, empowerment in co-production should be seen in a more nuanced way with giving the citizens not only the voice (ability and right to have a say) and (actionable) choice (presence of alternatives), but also the right to be heard (recognition of competence), influence decision making (authority) and take action (agency). This requires means to be directly involved not only in implementing public services, but also in planning and designing the services. For positive effects outlined above, it is necessary to build up the self-efficacy of citizens so they would be willing and able to contribute to co-production.

In general, co-production assumes that citizens have the willingness and ability to be actively involved in the decision-making process of what and how is delivered in conjunction with the public sector – having thus, agency, responsibility and power within the process. However, this is not a simple, a priori existing condition. For one, there can be explicit knowledge barriers to co-production (Thomsen 2015) or simply preferences and attitudes of citizens themselves that determine their participation in co-production. Furthermore, based on a study made in five different European countries, Bovaird et al. (2015b) concluded that people have to first believe in the potential of citizens to make a difference – efficacy – to engage in co-production (see also on this point Parrado et al. 2013; Thomsen 2015). This presents a Catch 22 situation: co-production is supposed to empower citizens, while citizens need to feel empowered to co-produce in the first place. In many cases, citizens cannot always take a more active role because of stereotyping, imbalance of power and resistance from service providers to give authority to citizens (Williams et al. 2015).

*Mechanisms of empowerment*

The concept of empowerment implies that individuals have the necessary competencies and that these need fostering by increasing citizen participation, changing social structure and

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4 For example, austerity may force users to undertake responsibilities for their own consumption, making it possible to deliver services on a reduced scale and with automated technology by consumers doing more (Gilliatt et al. 2000).
adding resources (Hardina 2003). However, it is often difficult to determine what actually facilitates empowerment in individuals, groups, organizations, and communities. Empowerment begins with some notion, model or representation of the service user within the co-production process, even if this is only implicit (Richter and Cornford 2007, 211). Cardullo and Kitchin (2017), building on the original taxonomy by Arnstein (1969), have identified sixteen roles that citizens can take in participation ranging from passive and lacking control to active and responsible, with nature of their engagement varying from forms of coercion through to visioning and steering initiatives. They state that initiatives based on more active citizen involvement are often more experimental in nature and hence, might fail to create a long-term, sustainable outcome. According to Peters and Pierre (2000), supporters of empowerment advocate for people being ‘pushed’ into making more decisions about their own lives, be it through individual or group activities – being empowered through the exercise of power. In addition, training citizens becomes a requisite, so they are capable of taking up the role bestowed upon them and able to participate in the process (Gilliatt et al. 2000). In effect, there is normative logic according to which empowerment is good in itself, regardless of how it is achieved. Many disagree, claiming that the collaborative relationship cannot be paternalistic (Bovaird and Löffler 2012, 1122).

There is also a risk that through empowerment and a more active role assumed to be taken by citizens, a lot of the responsibilities and accountability related to service provision are shifted towards the service-user, ignoring the possibility that not everyone is willing or able to bear the burdens of responsibility (Bandura 2001). Increased responsibility in some cases may also mean the decrease of power, as the really powerful are able to escape responsibility and avoid accountability. Furthermore, it is disputed whether benefits of empowerment, such as higher civic engagement or greater legitimacy, outweigh structural problems such as lack of representativeness or time and resource intensiveness, because authentic participation is sometimes made difficult by the power inequalities inherent to political, economic, and organizational systems (Bartels 2013). The ways in which interactions between citizens and public organisations are structured and managed shape who gets to say what, when, and how (ibid.). Consequently, one needs to observe, who and how gets empowered in co-production. For example, in the context of this article, using new technologies may exclude the potential for some forms of user interaction and thus, become inimical to many of the objectives of citizenship (Richter and Cornford 2007).

**Defining co-production through the lens of empowerment**

As outlined above, co-production in its essence is about citizen participation. Citizens contributing their resources (be it time, finance or insights) is instrumental to expected outcomes of co-production from better service quality, innovation, efficiency to increase in democratic representation and legitimacy of government. What makes a difference is how citizen involvement is achieved and through which mechanisms they get empowered. This, as argued afore, is important because empowerment and self-efficacy of citizens may be the cornerstones of long-term engagement in co-production. Through various definitions, co-production can be observed on the continuum of ‘active’ or ‘passive’ citizen engagement and
this characteristic of co-production could be analysed through the mechanisms of citizen empowerment. Table 1 draws together the argument in line with the characteristics of empowerment itself.

Table 1. Mechanisms of (dis)empowerment

<table>
<thead>
<tr>
<th></th>
<th>Active co-production</th>
<th>Passive co-production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice</td>
<td>• Citizens have a say within the collaborative process in all co-production phases: decision-making, designing, planning, implementing and evaluating services</td>
<td>• Citizens have a say in the implementation and evaluation phase of the service</td>
</tr>
<tr>
<td>Choice</td>
<td>• Active, voluntary participation initiated by either citizens or government</td>
<td>• Participation initiated by government</td>
</tr>
<tr>
<td></td>
<td>• Choice of alternatives in the process of designing services</td>
<td>• Pre-defined choices</td>
</tr>
<tr>
<td></td>
<td>• Experimenting allowed</td>
<td>• Possibility of inactivity (opting out) or disempowerment by coercion (involuntary or implicit/unknown nature of the service)</td>
</tr>
<tr>
<td>Recognition of competence</td>
<td>• Multi-directional communication</td>
<td>• Unidirectional communication and consultation</td>
</tr>
<tr>
<td></td>
<td>• Shared trust between citizens and the state</td>
<td>• Professional expertise as the key inclusion mechanism</td>
</tr>
<tr>
<td></td>
<td>• Training for citizens available if needed</td>
<td></td>
</tr>
<tr>
<td>Authority</td>
<td>• Clearly defined rights of citizens to partake in co-production of services, often designed with citizen involvement</td>
<td>• Narrow options for citizens to partake in co-production, defined by the state</td>
</tr>
<tr>
<td></td>
<td>• Shared authority</td>
<td>• Paternalistic view on authority (authority not shared or shared selectively)</td>
</tr>
<tr>
<td>Agency</td>
<td>• Possibility to change the service</td>
<td>• Increase in responsibilities without the possibility to change service design</td>
</tr>
<tr>
<td></td>
<td>• Increase of responsibility of citizens and possibility to hold government accountable</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors.

Looking at the mechanisms of empowerment helps to analyse to which direction – active or passive – new digital technologies are pushing the co-production process.

Impact of digital technologies on co-production and empowerment

As said, co-production seeks to go beyond citizens as passive recipients and aims to empower users to take greater control over, and responsibility for, their lives (Martin 2005). However, different forms and mechanisms of co-production affect citizen empowerment differently. When co-production goes to the digital realm, another layer of factors emerge. Already in 1981 Parks et al. noted that technology determines whether there are production functions available that involve both employees and customers as participants in the service provision process (the same as economic considerations determine whether it is efficient to co-produce the service;
and institutional considerations determine whether co-production is appropriate even if it technically feasible and economically efficient) (Parks et al. 1981, 1002). With new digital technologies it is expected that technology will help to empower citizens by enabling reciprocal use of resources and joint action as ICT provides ample of new and efficient ways to actively engage with citizens: through listening, responding, and consequently changing services (see Noveck 2016; Andriotsopeoulou 2016). However, does the practice deliver on the promise?

ICT invariably provides an additional channel for public service support. Ever-widening use of sensors and other similar technologies potentially enable radical shift in how citizens co-produce public services (e.g., telecare, robot assistants, real-time remote monitoring and other assisted living technologies make caring increasingly possible at homes again, see e.g. Wherton et al. 2015). As argued by Townsend (2013), citizens by designing new social technologies (apps most notably) are not only best positioned to use the existing knowledge on articulating specific needs and novel ideas, but also providing quickly effective solutions through either individual initiatives or collective ones (e.g., hackathons, technology workshops, living labs, app contests, crowd- or citizen sourcing). Thus, governments can by adopting co-creative and collaborative problem-solving strategies, “crowd-source their way out of problems” (Nam 2012, 14). By using gamification and creating active on-line communities it can be possible to increase the self-efficacy of citizens to co-produce (Szkuta et al. 2014; Noveck 2016). Much of this is organized around digital platforms that bring “together different services, applications and technologies, as well as all types of people, and connect them to each other” and that “interconnect people, allowing them to actively observe, report, collect, analyse, provide and disseminate information” (Janssen and Estevez 2013). As digital technologies allow for more personalized services, it may also be possible to increase not only the uptake of public services, but also satisfaction and effectiveness (e.g. MOOCs can be adjusted to your individual needs and schedule). Consequently, digital technologies can create new social practices and interactions (Townsend 2013). As a result, the new technologies can force governments to change their core tasks: instead of providing or purchasing services it becomes a framer, sponsor, mobilizer, monitorer, and provider of the last resort (Linders 2012; see also Townsend 2013).

Yet, it is well known from the organizational sociology and other fields of studies that technology never automatically delivers on its promises: it shapes and affects the choices humans and organizations make, making the use and impact of technology an open ended and evolving process (Leonardi and Barley 2010). Thus, the use and effects of technology should not be seen in a uniform manner. Empirically, there is little evidence available on the actual impact of the new technologies on co-production in general and empowerment in specific (Noveck 2016; Clark et al. 2013; Meijer 2012). Next to many success-cases, there is some preliminary evidence that citizen empowerment tends to be difficult to achieve purely on digital terms. For example, MOOCs were launched to disrupt the higher education system, yet it has appeared that with no peer pressure and direct engagement by lecturers the graduation rates have remained considerably lower than expected (Yuan and Powell 2013; Maringe and Sing 2014; Soffer and Cohen 2015). True empowerment of citizens assumes deep understanding of citizen needs for which big data, crowdsourcing etc. technologies may not (yet?) be capable of (Fountain 2014) and where direct interactions between professionals and service users as well as the use of “good old” methodologies such as observatory participations are still a vital part
of co-production. Consequently, this is where the effectiveness of co-production comes into conflict with the efficiencies the digital technologies promise.

Recently, a new wave of critical thinking on the role of technology on citizens’ engagement has emerged (e.g. Cardullo and Kitchin 2017; Kornberger et al. 2017). For example, proliferation of platforms and digital solutions allow users to generate large volumes of content (Lukyanenko et al. 2016) – through tags, posts, tweets, product/service reviews, forum posts etc. – which can be incorporated into the co-production process to also understand behaviour, and improve and design new services. As digital co-production applications can have millions of users, it is clear that all of them cannot be involved in the design of the systems. At the same time, poor user involvement during system development can have a negative impact on user engagement (see overview of challenges of user generated content in Lukyanenko et al. 2016). What is more, there is no guarantee that the public sector will integrate citizens who are the most affected into the decision making process; on the contrary, governments tend to absorb the knowledge from the public without guaranteeing inclusiveness (Schmidthuber and Hilgers 2017). Previous studies have argued that disadvantaged populations participate less in co-production (see e.g. Jakobsen and Andersen 2013) and especially when this is technology-mediated (Townsend 2015; cf. Clark et al. 2013). Moreover, digital technologies may in some cases directly harm citizens as has been demonstrated in cases where video-chats have been introduced in prisons to save costs, but as this has proven to weaken social ties, it has in many occasions resulted with disempowering prisoners.5

Consequently, digital solutions do not automatically lead to their usage and oftentimes, customers’ reluctance to adopt new technologies has become a challenging hurdle (Gelderman et al. 2011). One might ask how much this empowers rather than just engages citizens by consultation (Webster and Leleux 2017). Consultations (contrary to co-production) are government initiatives, where public sector sets the agenda, controls the process and also finally decides about the results (Martin 2005), a distinction not often made in studies exploring the nexus between technology and citizen participation. Sometimes consultations can have a co-creative nature where citizens are truly and not rhetorically empowered (Bovaird and Löffler 2016), but often this is not the case (Cardullo and Kitchin 2017). For example, while a myriad of crowdsourcing technologies for collecting citizens’ ideas, opinions, funding, solutions and data (see Nam 2012; GovLab 2013; Noveck 2016) have recently emerged, not all of these represent an attempt to establish reciprocal interactions. Consequently, a bulk of digital participation, so far, has been largely passive and only very recently interactive as Web 2.0 technologies have come forth in the public sector (Batty et al. 2012, 498).

Technological applications in co-production may not only empower citizens, but may also re-allocate control and power towards specific groups in society, governments and private companies. Accessibility to new technologies is unevenly distributed in society where the so-called ‘new leisure class’ (Tõnurist et al. 2016) or ‘more bourgeois areas’ (Hastings et al. 2014), of young and educated professionals have more skills and time to engage with technology-induced co-production than many other social groups (Townsend 2013; Mergel 2016). Consequently, there are different types of digital citizen involvement projects that are either

5 See e.g. https://mic.com/articles/142779/the-end-of-prison-visitation#zMG5pudmr
“integrative citizensourcing” – large number of participants without special skills, simplicity of tasks – or “selective citizensourcing” where the aim is to solve complex problems requiring special expertise (Thapa et al. 2015). The more complex the interaction, the more the citizen generated content can suffer in terms of quality (e.g., Lukyanenko et al. 2016). Consequently, use of technology can lead to more participation, but usually when the engagement is made easy and state-of-the-art techniques for processing and classifying insights and knowledge (due to information overload) are used (Androutsopoulos 2016).

Substantive or active co-production as well as technological change means loss of autonomy and control for government officials, which is why governments are often reluctant to change their internal routines (on co-production, see Bovaird 2007; on social media impact, see Mergel 2016). Relatedly, technology is sometimes applied by governments in co-production through isomorphic processes, just to ‘look cool’ (Nam 2012; Townsend 2013) rather than with the aim of empowering citizens or actually targeting productivity. If there is a strong resistance to co-production or limited capacity to engage with citizens, technology is likely to lead to selective behaviour and re-produce the existing routines rather than facilitate substantive participation and co-production (Kornberger 2017). Also, technologies tend to provide public officials with ample opportunities to increase control over citizens and communities rather than empowering them. As observed by Kitchin (2016), “technologies are top-down, centrally-controlled and managerialist in orientation, often introduced by bureaucrats (city managers) rather than elected officials or being developed in conjunction with local communities”. This tendency is today most clearly visible in the so-called global smart city movement, where recent advancements cluster predominantly around top-down technologies such as dashboards, smart meters, sensor networks, centralized control rooms and various applications that foremost cater the needs of governments and provide opportunities for markets rather than enabling truly co-creative practices through empowering citizens (Cardullo and Kitchin 2017). Moreover, the code underlining every digital solution for co-production always entails normative assumptions and values that in the end structure how citizens can provide input for co-production, yet these normative assumptions are seldom debated openly, especially when proprietary technologies and commercial secrecy are applied (O’Neil 2015).

Critical observations point towards the clustering of technological innovations around solutions that are designed top-down and mostly enable passive and minimalist rather than active co-production driven by empowered citizens. It seems that enhanced digitization increasingly structures how citizens provide input through co-production (choice) without citizens being always able to influence how this is structured (voice, agency and recognition of competence) and to hold the technology provider accountable (authority).

To summarize, we can argue that the expected impact of new digital technologies on empowering citizens can be seen as follows:

- Increasing digitization provides a myriad of alternatives to overcome the problem of lack of self-efficacy that is key to active co-production and empowerment;

- Digital technologies provide an efficient way to solve collective co-production problems where participation is low, yet this shift comes with the price of less empowerment;
As such, digital innovations are clustering around top-down technologies that enable passive/minimalist rather than active/full co-production, maximize wide reach and are easy to scale up. Passive and minimalist co-production leaves the government with more control over choices to be made (authority) and leads to more limited empowerment of citizens. This trend is reinforced by:

- The efficiency and control concerns by the public sector, inherent limitations in digitizing co-production and limited efficacy on behalf of citizens (e.g., voice, recognition of competence across crowds);
- Algorithms are increasingly structuring co-production, but are seldom itself developed co-creatively, thus, limiting open debate and deliberation – voice and agency – that are key to empowerment;
- The easier the service, the easier to engage citizens. However, the easier the service, the easier it is to opt for more top-down and automated engagement (i.e. passive co-production), thus making citizen-professional interactions more instrumental and technocratic rather than open-ended;
- Digital technologies have the tendency to make citizen involvement almost automatic/implicit, making true co-production – conscious choice and agency – questionable. As such, it is increasingly more difficult to opt out from passive co-production as allocation of control over digital traces is still very much open.

In the next section we set out to test the presented assumptions through a comparative case study approach with the aim to see if the potential trends described above are supported by emerging practice.

**Methodology and case selection**

To analyse the research puzzle, the article utilizes the largest public sector innovation database in the world at the OECD, Observatory for Public Sector Innovation. Launched in 2013, the observatory collects innovations from (predominantly) public sector employees who have the right to self-nominate cases to the platform from both OECD countries and outside. In 2016, the Observatory carried out a special world-wide call for cases for the Global Innovation Review (2017) among all known public sector innovation networks, expanding its case portfolio twofold. The information collected on the innovations covers among others the description of the innovative practice (type, main beneficiaries, objectives etc.), results, lessons learned, methods used to develop and test the innovation prior to its full implementation, main challenges in the development process and the extent to which the intended users of the service were involved in these phases. The cases are reviewed prior to their addition on to the platform. In May 2017, the database had 387 public sector innovations. For the current research, cases with a digital and co-production components were selected (49 cases) based on the analysis of case descriptions. The case information was supplemented by additional

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6 First and foremost, the authors looked at submissions made worldwide to the Global Innovation Review, with an initial dataset of 160 cases, out of which 115 were selected after pre-analysis. From the latter, 32 cases had a co-
desktop research depending on need. While the collection of cases used is not representative, it can nonetheless be used as a proxy indicator of what governments around the world deem as the most important emerging digitally enabled co-production practices.

Analysing the set of co-production cases worldwide, we aim to show through a comparative case study approach the various forms that technology-enabled co-production can take and what role citizens have in these initiatives. In doing so, we are interested in the effect technologies have on empowering citizens. Building on our analytical framework and based on the cases at our disposal we set out to explore:

(1) **the type(s) of technologies involved in co-production** in terms of a) crowdsourcing (ideas, opinions, funding, subtasks, data) (Noveck 2016), b) platforms (Linders 2012; Janssen and Estevez 2012), c) do-it-yourself- / peer-to-peer /self-services (Linders 2012; Pazaitis et al. 2017), d) electronic sensors, drones etc. hardware, e) others. This categorization should be taken as illustrative: many of the solutions can employ mix of different technologies, and in some cases also non-technological approaches/ methods, while some technologies can have multiple meanings. We categorized the technologies based on their core logic in every specific case.

(2) **the stage(s) of co-production concerned** in terms of co-planning, co-design, co-delivery and co-evaluation (Bovaird 2007);

(3) **the formal ambitions and claimed impacts** in terms of if active co-production and/or empowerment was explicitly mentioned or not;

(4) **the nature of active vs passive involvement (empowerment)** as identified in Table 1 above.

Through these four categories we expect to describe the emerging trends in technology-enabled co-production practices vis-à-vis citizen empowerment. What follows is a preliminary overview of the results with the emphasis put on the last category (i.e. active vs passive empowerment).

**The effect of technology in practise: the preliminary results**

Table 2 outlines the broad and preliminary results of the review of 49 cases. Although digital technologies is expected to enhance the ways citizens can partake in public services, provide wider geographical coverage or enable more people to participate, we see that, in line with many other studies and hypotheses proposed, digital technologies as such never implicitly empower citizens.

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production angle (26 with links to technology, 6 without). In addition, we included a selection from 136 cases collected by OECD Observatory of Public Sector Innovation, out of which 28 were linked to co-production (24 with links to technology, 4 without). A total of 60 co-production case studies out of which 49 had an element of ICT in them.
Table 2. Characteristics of digital technologies and co-production

**Types of technologies used**

<table>
<thead>
<tr>
<th>Type</th>
<th>Crowdsourcing</th>
<th>Platforms</th>
<th>DIY/P2P</th>
<th>Sensors etc. hardware</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share in total selection (%)</td>
<td>55%</td>
<td>37%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Stages of co-production concerned**

<table>
<thead>
<tr>
<th>Stages</th>
<th>Pre-production only (co-planning, co-design)</th>
<th>Production/post-production only (co-delivery, co-evaluation)</th>
<th>Both pre-production and production/post-production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share in total selection (%)</td>
<td>27%</td>
<td>69%</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Formal ambitions and impacts**

<table>
<thead>
<tr>
<th>Ambitions and impacts</th>
<th>Active citizens/empowering mentioned</th>
<th>Active citizens/empowering not mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share in total selection (%)</td>
<td>33%</td>
<td>67%</td>
</tr>
</tbody>
</table>

**Nature of active vs passive involvement**

<table>
<thead>
<tr>
<th>Nature of co-production</th>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share in total selection (%)</td>
<td>30%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Source: Authors.
In most of the cases we looked at, co-production gave citizens the at least a minimal *choice* (12 cases, 24%) or *voice* (21 cases, 43%) in service provision. In addition, in 13 cases (27%) we could see that the recognition of citizens’ competence was based on multi-directional communications and shared trust. Only in one case did we see authority given to citizens and two cases where citizens had the possibility to change the service and take responsibility, also to hold government accountable (agency and authority). In regards to other ways of empowerment, we observed both active and passive involvement in co-production, however, in case of authority and agency, only active participation was apparent. Taken into account the inherent features of authority and agency – clearly defined roles, shared responsibilities, increased opportunities for citizens to change the service design – one could have expected that they are only manifested in active citizen involvement.

In support of our claim that digitization provides alternatives to overcome the lack of self-efficacy that often hinders active co-production and empowerment, we see that there are many ways people can be involved in co-production thanks to advances in technology, most popular of those being crowdsourcing (27 cases, 55%) or platforms (18 cases, 37%). This distinction is in many cases arbitrary, depending also on how the projects themselves reported about the technologies used. In most cases, more than one channel was used to ensure citizen engagement (e.g. combining sensor data with social media, or mixing digital crowdsourcing with face-to-face forums). What is additionally telling, co-production was used in all phases of the process starting from co-design all the way to co-evaluation. However, our analysis shows that in 69% of the cases, co-production efforts were focused on the delivery and evaluation side of the process and out of those, only half (16 cases) required some sort of active participation from service users. For instance, it is critical in nature conservation to know how many animals are present in a defined area and usually, this involves driving a car or flying a manned aircraft over the area and manually counting animals on the go, resulting in very approximated numbers. In Namibia, drones were used to capture thousands of aerial images and the San people, regarded as the best wildlife trackers in the world, were involved in identifying and counting animals in drone imagery using techniques that a computer cannot perform. Here technology clearly enabled active co-delivery by local people.

Most of the cases, where active citizen involvement was observed in the co-design or co-creation phase, were related to involving citizens in various policy development initiatives. This again is something that is to be expected, because generating ideas, giving suggestions or choosing between alternatives often – although not always – requires active input from citizens. In Taiwan, open source community and the government collaboratively developed a set of methods that integrate technology, media, and facilitation into a platform called vTaiwan. It incorporates crowd-sourced agenda setting, public meetings, in-person stakeholder meetings (co-facilitated by civil society and the government, and broadcast to remote participants) and lastly, government agreement to bind its action to points that reached consensus (or explanations why those are not feasible). This process rests on active participation from the citizens through empowering them; facilitation is used to ensure that everyone can be heard. However, as we see, real empowerment in this case seems to stem from the eye-to-eye meetings where citizen input is openly discussed with an aim to reach consensus. Similarly to vTaiwan, which seemingly gives not only voice and choice to citizens,
but also authority and agency and recognizes their expertise at large, the municipality of Örnsköldsviks in Sweden launched a co-creational development project for digital public services to achieve urban and rural balance. The aim of the project was to create an online platform and a related application that would allow for people in rural territories to be a part of different services and events via the platform. In addition, it aimed to change the attitude among the participating actors and target groups (national, local and foreign companies, municipality committees, village associations, politicians and leading officials) and open up possibilities for viral marketing, information dissemination and the distribution of new skills. As a result, the project opened up new communication channels between individuals and agencies, launched an e-service platform based on openness and transparency and related apps for smartphones/tablets comprising events and activities in Örnsköldsvik municipality, marketing services, advertising, calendar etc. In addition, the project started a co-creative process of innovation where new perspectives and concepts are co-created, giving more attention to rural development. As a limitation, due to self-reporting the actual level of empowerment achieved remains in these and other cases somewhat open.

Among those co-production cases where active citizen involvement took place in the design phase, we identified four cases where empowerment was related to the recognition of competence. For instance, the authorities of Lahti City decided to use a phone application called Porukka to reach out to Lahti City residents. The city wanted to inspire its residents to think about what type of city they want to live in, and have a possibility to get their ideas included in the city development strategy. Seeing that the app was launched only in 2016, it is still early to say whether it has indeed empowered citizens to be more actively involved in city development processes. However, engagement has been made fairly easy for them and if the town authorities really incorporate citizen input into strategic action, it would inspire more and more citizens to partake in the process. Similarly, in the case of the Common Knowledge Network RCC in Portugal, a website was used to start a collaborative platform to promote the sharing of best practices and information about modernisation, innovation, and simplification of public administration. The platform is based on open membership by public agencies, central and local administrations, private entities and citizens presenting and describing best practices used, and their results. Furthermore, the RCC provides debate on public policies and their implementation at local, regional and national levels, and participatory decision-making with interest groups and communities of practice, thus strengthening communication and coordinating information sharing. Likewise, Speechbubble is an online forum for the Australian Department of Human Services to inform and engage with the public, staff and stakeholders in designing its initiatives and services. The forum is open for set periods of time to collaborate on a specific initiative and is based on multi-way communication whereby the general public and staff can make suggestions on the department’s initiatives. The overall aim of Speechbubble is to produce high quality services using a collaborative approach and recognising that citizens often have the most knowledge about they need and want, it offers a good channel for getting input from them. Lastly, the Austrian Council for Research and Technology Development commissioned the design and development of a platform to enable crowdsourcing for strategic documents, thus increasing the range of knowledge and perspectives used in policy-making. On the platform, citizens can vote and comment on specific paragraphs of a strategy currently being
discussed, making it easy to identify controversial issues in the document. Through commenting, the community is given the possibility to suggest new options and alternatives to the existing paragraphs. Here, too, we see that citizens’ knowledge is being used to improve policy and they are given the possibility to shape what and how their government delivers as policy. However, we still see that this is a top-down process, where the government frames the playground and citizens are merely used as experts to participate and have a say in community/state development.

Out of the 49 cases of co-production analysed that involved using technology, only three were related to agency, i.e. increasing the responsibility of citizens and giving them more opportunity to hold government accountable. The Vienna Charter in Austria is a written agreement between people who live in Vienna. Although the process of reaching agreement was facilitated by the City of Vienna, the citizens reached it alone and out of their own conviction. The agreement covers good neighbourly relations and citizens’ role in contributing to their community, and not what politicians or the city administration should do. Citizens chose the topics to be covered by the Charter and actively participated in its development, both online and offline. The process was supported by 325 partner organisations by holding charter talks and/or using their information channels to spread awareness about the project. It was an open process that, in essence, was owned by the citizens and where digital technologies made it possible for the citizens to contribute on a large scale. Secondly, UP Sceaux encourages the people living in Sceaux, France to carry projects and/or take an active part in existing initiatives that are all gathered on a territorialisied social network created in the framework of a partnership between an NGO and the local government. The starting point of UP Sceaux is that civil society can be the source of effective solutions to social and environmental issues. It is a tool animated for and by the population to conduct projects by matching users who share common interests. For the local authorities it is an efficient tool to monitor new projects and regularly ease the achievement of the most valuable ones, drawing citizens and the administration closer together. Although a bit different in objectives and design, both cases show how it is possible to empower people to take agency over their affairs. It requires effort from the state in terms of giving up some of the authority, increasing responsibility of citizens and allowing them to hold the government accountable. Similarly, it requires that citizens are willing and able to take up that responsibility and challenge the state where they see fit in order to increase the quality of public services. In Mexico City, which is not only one of the biggest cities in the world, but one with the largest public transportation systems in the world with 14 million rides per day, the more than 4000 citizens were able to co-produce the city’s first ever public transportation map consisting of thousands of bus routes within just two weeks. Here the citizens were both responsible for designing the solution as well as providing the data for the map. The city government now uses this platform to provide up-to-date information on bus routes. While the Vienna and Sceaux were the examples of using digital technologies to facilitate citizen initiative, then in the Mexico case the digital technologies made co-production possible to begin with, while making it also possible to use new types incentives (gamification of participation).

We also detected a limited occasions of co-production that had strong elements of do-it-yourself (DIY) services. Among those, for instance, were applications for disaster management like PetaBencana.id (Indonesia), producing megacity-scale visualizations of flooding and using
both crowdsourced reporting and government agency validations in real-time. By connecting to social media, hydraulic sensors, and other urban applications, CogniCity creates an open platform that redirects existing systems to support disaster response and humanitarian action, while enabling reliable communication between users and government agencies, and promoting civic co-management as a form of megacity climate change adaptation.

Out of the cases that we termed as passive co-production, half were related to crowdsourcing, mostly for service delivery or evaluation. In Indonesia, the Food Security Early Warning System uses satellite climate data (rainfall anomaly, and vegetation health index), crowdsourced food price data and household survey data to provide integrated visualisations of the extent of drought affected areas, impacts on market structure and pricing, and coping strategies and resilience of affected populations. Similarly, the Rio Operations Center connects data and information from 50 government agencies and relevant private sector stakeholders, including the Internet of Things, e.g. security cameras, water and rain gauges, private maps, traffic signal data, the electricity grid, traffic controls, public transit vehicles and social media feeds in order to provide precise and timely information to citizens through several channels, including social media.

Although citizens could be perceived as mere recipients of a flow of information, in these and other similar cases they are also used as sources of information, not least through social media feed. However, the input required from citizens in all these and other similar cases is minimal and automated, which is why it is questionable how much citizens can be really valued as co-producers in this context. In effect, the only case out of those 10 passive co-production cases that reported citizen empowerment as one of the objectives of the initiative was BIMER (Prime Ministry Communication Centre, Turkey), which aims at identifying problems and collecting complaints, ideas or suggestions from citizens and residents. Although an amiable initiative, it does not go further in terms of empowering the citizens, but remains as a formal means for people to voice their concerns, nothing else. There is no follow-up mechanism in place to see how many of the opinions or complaints have been taken into account while drafting policies or launching new services.

Probably one of the most daring co-production initiatives in terms of possible negative impact (in the case of failure) we observed in our selection was ‘Hack the Pentagon’, the first cyber bug bounty program in the US federal government, aimed at identifying and resolving security vulnerabilities within the US Department of Defence websites. The initiative was designed after similar simulations carried out in private companies to improve the security and delivery of networks, products and digital services. The hacker community was invited to put cyber security to the test in an innovative, but responsible way. Over 1,400 hackers participated in ‘Hack the Pentagon’, identifying in total over 250 vulnerabilities and over 130 flaws. Seeing that the initiative was considered successful, it is going to be expanded to other parts of the Department of Defence. For this, all the Department’s components have been ordered to review where such programs can be used. Taking into account the nature of the work of the Department of Defence, an initiative of this scope and magnitude can be considered highly risky. With possible threats to cyber security, or the US security in wider terms, giving such authority to external hackers could be seen as questionable. However, with the possible cyber threats public institutions all over the world face, taking a daring step towards improving cyber
security might be the only solution. In addition, as described by a senior defense official when commenting the initiative: “We can’t hire every great ‘white hat’ hacker to come in and help us, but [Hack the Pentagon] allows us to use their skill sets, their expertise, to help us build better more secure products and make the country more secure.” (Pellerin 2016). Yet, as this co-production process was for obvious reasons carefully designed top-down, it represents again a classical case of co-delivery rather than co-creation.

Conclusions

The preliminary evidence presented in the current study seems to echo many of the critical arguments presented in the technology-driven co-production literature so far. From the one hand, increasing digitization provides a myriad of alternatives to overcome the problem of lack of self-efficacy that is key to active co-production and empowerment and digital technologies provide an efficient way to solve collective co-production problems. Yet, on the other hand, it seems that this technology-driven shift comes with the price of less empowerment of citizens. This is not to suggest that governments were actively aiming at dis-empowering citizens, but that digital technologies seem to push the co-production practice towards new trajectories that assume passive rather than active participation of citizens.

The analysis of the emerging practice shows that the effects of technology are highly varied. In the majority of cases citizen empowerment has not been the focal point of these co-production initiatives, while the nature of the process itself can be empowering to citizens to some degree. More often than not, the citizen participation in the cases reviewed was clearly passive and a more minimal, typically relying on implicit participation through citizen-sourcing. Furthermore, the role of citizens in the design phases of these initiatives is low, albeit seemingly a precondition to active co-production and arguably with greatest effect on co-production outcomes. In the cases that we deemed ‘active’, different factors – choice, voice, recognition of competence, authority and agency – of citizen empowerment were enhanced, but not all together. While giving citizens voice and choice was the most popular mechanism of empowerment (and usually these initiatives where quite simple), broadening citizen agency and sharing authority with citizens was very rare. Thus, active co-production through digital technologies (when it manifests) is empowering to citizens, but only up to a degree.

The effects on the individual level for citizens should be examined more in detail in future studies, not least in terms of effect on existing social structures and organizational routines or redistribution of power. However, the analysis so far shows a very hybrid picture of impacts on citizen empowerment, where full empowerment of citizens is (in most cases) not happening; and even when active co-production is practiced, governments retain top-down directive control over the process. This is partly explained by the nature the data was gathered (self-reporting), which probably underreports bottom-up initiatives. At the same time, it demonstrates what governments themselves deem important in digital co-production and what is the likely direction of co-production innovations in the near future. It may very well be the case that the inherent features of the digital technologies and the opportunities they create (speed, scale, reach, efficiency etc.) may significantly influence how governments go about co-production. And in spite of rhetoric, this may have not that much to do having citizens actively co-producing the services. Therefore, when the aim of using digital technologies is to increase
the efficiency and effectiveness of public services by involving citizens in active co-production, there is still plenty to do in order to design the co-production processes in a way that allows real empowerment, active engagement and two-way communication between the citizen and the state.

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Client Coproduction from Online to Offline: Evidence from Chinese Public Bike Service

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Abstract Client coproduction of e-service has become an important research issue in the context of Information Society and E-Government. Focusing on Online to Offline (O2O) client coproduction, a type of client coproduction utilizing online platform to elicit offline coproduction, this paper explores how Internet could enable the emergence of a new type of client coproduction and its coproduction process in on-/off-line layers of four stages. The case of Chinese Public Bike Service is analyzed based on the theoretical mode developed. The finding in this article suggests that Internet is essential in creating a virtual community of clients and service providers so that their digital contact could increase their potential to cooperate. In addition, Internet is also important to amplify service providers’ tool kit in promoting offline client coproduction with online mobilization. Finally, Internet helps to connect various stages of O2O client coproduction, making coproduction process both durable and sustainable. Though preliminary, this exploratory mode can help to reveal the potential of Internet in facilitating the emergence of a new type of client coproduction less noticed in the previous studies. Implication and potential directions for future studies are also discussed.

Keywords: Client Coproduction, O2O, Public Bike Service
Client Coproduction from Online to Offline: Evidence from Chinese Public Bike Service

Introduction

Coproduction, which originated in the workshop of political theory and policy analysis in Indiana University in 1970s (Percy, 1984), has attracted the attention of public administration scholars again in recent years (Thomas, 2012). Almost all types of public service require some extent of contribution from the citizens (Ostrom, 1996), which makes research of the coproduction essential for our understanding of public service in a perspective of Service-Dominate Logic (Osborne et al., 2016).

This paper focuses on client coproduction, which could be defined as any active behavior by ‘a person with one or more roles of pay customer, beneficiary or obligatee outside the government agency’, which: a) ‘is conjoint with agency production, or in independent of it but promoted by some action of the agency’; b) ‘is at least partly voluntary’; and c) ‘either intentionally or unintentionally creates private and/or public value, in the form of either outputs or outcomes’ (Alford, 2009: 23, 46). Hence, it focuses mainly on the client’s contribution and cooperation in the public service delivery and provision.

Scholars are interested in the process by which coproduction takes place. Etgar (2008) has proposed that this process includes five distinct stages: (1) ‘development of antecedent conditions’, (2) ‘development of motivations’, (3) ‘calculation of the co-production cost-benefits’, (4) ‘activation when consumers become engaged in the actual performance of the co-producing activities’, and (5) ‘generation of outputs and evaluation of the results of the process’. Besides the various stages clients are engaged in, variation also lies in different contributions clients could make to inputs, processes, outputs and outcomes of public service (Alford, 2009: 179).

These efforts to explain how clients are engaging in coproduction have managed to depict a comparatively comprehensive landscape of process in client coproduction so far. However, how client coproduction process has evolved in the context of Information Communication Technology (ICT) is a less explored question. Previous studies suggest that ICT could effectively promote the development of social network (Eggers, 2005) and lay a good foundation for coproduction and for citizens to impact public sector (Leadbeater & Cottam, 2007). In addition, ICT has no longer be just an information media but a platform for communication and interaction, which meet the social and emotional demand of the citizens, and hence promote the implementation of coproduction (Meijer, 2011). Consequently, ICT has been adding to both the instrumental value and institutional value to the coproduction (Kling and Dunlop, 1991; Snellen & van de Donk, 1998; Meijer, 2012). These findings indicate ICT’s potential benefits for forming new type of coproduction (Meijer, 2012; Osborne & Strokosch, 2013), while how this new type of coproduction is created with the facilitation of Internet platform is still unclear.

In this context, this article intends to investigate the following question: how might a client coproduction process be impacted by an Internet platform? If an Internet platform has greatly reshaped the process of client coproduction, it would be reasonable to argue that a new type of coproduction has emerged and more attention should be paid to this emerging trend.
For the sake of research feasibility, this article mainly focuses on one type of client coproduction using ICT, that is, Online to Offline (O2O) Client Coproduction, the client coproduction utilizing online platform to promote the implementation of offline coproduction. The remainder of this article will unfold as follows. First, the theoretical discussion will examine definition and characteristics of O2O Client Coproduction. With that foundation, the second part will consider how O2O Client Coproduction would vary from their traditional offline counterpart in the coproduction process to develop a mode of O2O client coproduction, drawing from parallel literatures on public participation, e-service and O2O e-commerce. In the third part, the case of Chinese Public Bike Service (PBS) will be analyzed based on the previous discussion. The paper will explore how PBS in China using O2O client coproduction, namely Online Sharing Bike (OSB), might address obstacles hampering sustainable provision of urban PBS in the previous modes in China and thus rocket its market occupation in recent years. The last part provides conclusion of the findings in this article and briefly discusses how these findings could respond to previous literature of coproduction and PBS, and reveal the potential for future studies.

**O2O Client Coproduction**

As it advances, e-government is moving its focus from internal routines to scenarios in which citizens use public e-services to complete complex transactions with government authorities (Asgarkhani, 2005; Layne & Lee, 2001). However, embracing citizen engagement into practice is actually a challenging mission (OECD, 2009). O2O client coproduction is exactly an approach client could get engaged in and be contributive to e-service provision.

O2O client coproduction is defined in this article as the client coproduction utilizing online platform to promote the implementation of offline coproduction. It originates from O2O e-commerce in private sectors, which could be exemplified by services provided by Yelp, Uber and TripAdvisor (Xiao & Dong, 2015). As the same as O2O e-commerce, aiming to ‘find customers online and bring them into real-world stores’ (Rampell, 2010, in He et al., 2016), O2O client coproduction integrates online digital interaction like service marketing, communication, and transaction, and thus promotes the coproduction in the offline real world. In this process, contributions from clients are promoted by service providers through online platform, perhaps together with the offline community, and the public and/or private values are created and extended from online to offline layer.

Several characteristics distinguish O2O client coproduction from other e-service coproduction. First, on-/off-line layers of O2O client coproduction are intertwining with each other. Their functions exist together through out all stages of coproduction, rather than separate or substitutive with the rest. Second, O2O client coproduction roots deeply in the offline real world. The service output and outcome are mainly produced offline, which is different from the pure online e-transaction. This makes O2O client coproduction emphasizes more on offline client engagement. Consequently, the interconnectedness between on-/off-line layers are much tighter than other types of e-service. Finally, the function of online layer or internet platform is to serve the aim to impact clients’ offline behaviors and elicit their offline coproduction, rather than simply gathering clients and delivering information to themes.
O2O client coproduction has been becoming more and more frequently adopted by service providers all over the world. For instance, Word of Mouth is a typical way that clients could contribute to marketing coproduction utilized by many e-service merchants as Yelp and TripAdvisor aforementioned (Litvin et al., 2008; Brown et al., 2007). Those digital service highly relies on the information and knowledge provided by the community of clients so that clients could consume offline service that is more responsive to their demand. Especially in consistent to the rocketing growth of O2O commerce market in countries like China, more and more offline service providers are transiting some part of their service chains online to embrace instant digital interaction with clients, to enhance their support of user participation and to expand its venue for coproduction.

**Mode of O2O Client Coproduction**

The usage of Internet impacts the approaches and extent in which clients and service providers interact with each other. As Rust and Lemon (2001 in Etgar, 2008) argue that the ‘advent of the Internet offers true interactivity with the consumer, customer-specific, situational personalization, and the opportunity for real-time adjustments to a firm’s offering to customers’. In addition, Internet also creates an online virtual venue that is absent in the traditional client coproduction, which leads to the parallel but reinforcing process of O2O client coproduction online and offline. However, the previous studies mainly focus on how ICT could impact the interaction mechanisms between actors, and on how the outputs or outcomes are affected by the new technology, the mode of this new emerging O2O client coproduction process is theoretically unclear so far. Consequently, it is essential to explore the process of O2O client coproduction, more specifically, how O2O client coproduction with the on-/off-line layers is different from the traditional offline client coproduction.

This mode of O2O client coproduction as follows is inspired by the work of Etgar (2008). However, the second and third stage he mentioned as ‘development of the dominant logic and of the motivation drives’ and ‘evaluation of costs and cost – benefit analysis’ (Etgar, 2008) are combined in this article, as clients’ motivation drives are surely attribute to clients’ evaluation of costs and cost-benefit analysis, and hence it is too hard to distinguish these two stages in reality. Moreover, different from Etgar’s mode, what is emphasized here in this article is how Internet enables an online script, and extends this script into the offline scenarios. Consequently, this mode mainly focuses on decomposing O2O client coproduction into different stages in both online and offline layers.

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**First Stage: Preconditions**

Certain antecedent conditions should be met to engage clients in coproduction. And internet is exactly the essential precondition for O2O Client Coproduction.
First, Internet is the foundation to create an online layer. This enables the establishment of online virtual community, which is the network for online information, knowledge and value dissemination. It also facilitates clients’ mutual communication and reciprocity. Because Internet integrates different modalities of communication as reciprocal interaction, broadcasting, individual reference searching, group discussion and person-machine interaction in a single medium (DiMaggio et al., 2001), the online layer of O2O client coproduction enables a multimodal, interactive and low-cost contact among providers and clients. On this base, Internet creates more potential for clients to contribute their information, knowledge, and value in service provision compared to traditional offline layer.

In addition, some of offline functions could be transited into online platform in O2O client coproduction. This online context provides solution for the spatial, temporal and other physical obstacles (Krueger, 2002; Min, 2010), enables service providers to supply service remotely (Robey et al., 2003), and establish more non-local social network (Valenzula et al., 2012). In this sense, Internet could decrease the difficulties in offline service provision for service providers.

When this impact is extended to the offline layer, Internet helps to increase the technical feasibility for client coproduction. Internet facilitates many modern service production and provision technology, Geographic Information System for instance, and thus enables many service innovations with user participation (Brovelli et al., 2016). Hence, the emergence of ICT gives birth to many types of client coproduction that cannot be realized in traditional offline venue. Internet could also reduce costs and delays in delivering services, and increases transparency and public accountability (Haque, 2002). ICT elicits the public service to emphasize exterior connection other than interior process as well (Tat-Kei Ho, 2002). In this sense, Internet not only adds to the technological feasibility of offline public service provision, but also adds to other cultural and structural preconditions necessary for offline client coproduction.

More essentially, Internet could also enhance the social tie among the online users even in the offline community. For instance, online group communication can lead to new offline contacts (Valenzula et al., 2012) and increase weak ties, transforming members of such a social network to ties to sub-network (Evans-Cowley, 2010). This would be essential for promote offline coproduction since sense of community belonging is an important factor for client coproduction (Van Eijk & Steen, 2015). In this sense, the online social network could somehow be extended into the offline layer in precondition stage, which adds to the possibility of client coproduction.

Second Stage: Motivations

Clients’ motivations, such as material self-interest, intrinsic motivations, sociality, and expressive values, are essential in promoting coproduction (Alford, 2009: 66). Developing ability in O2O client coproduction is also important as clients’ assessment of their ability to impact the outcome of coproduction would determine their efficacy, and willingness eventually. In this sense, developing motivations is combined with developing ability in the second stage of O2O client coproduction.

In motivation stage, clients assess their motivation to determine if they would participate in O2O client coproduction. Internet could be helpful to increase their motivation both online and offline. In online layer, as some functions of dissemination, communication, interaction, and
transaction can be transited to online layer in the first stage, it would be more convenient for clients to obtain service information, express opinions, and complete payment online. This meets their material self-interest as these costs to consume and coproduce online could thus be decreased. In addition, the online participation could also meet the intrinsic demands of some clients as it provides potential venues for them to impact the service quality, benefiting other clients and obtaining feelings of competent and self-determinant in the meantime. The online layer could also meet clients’ social demands through enabling social interactions among them in addition to offline contact, and meet their norm of reciprocity and shared language (Yang & Li, 2017).

Meanwhile, this impact of Internet is also extended offline. As some maintenance costs are reduced by online remote work, the service providers could endure a lower price and thus potentially increase the benefits clients might enjoy, which meets their material self-interest. In addition, the usage of Internet could also help to add to clients’ ability in coproduction. Clients could seek instant support from both service providers and other clients without time and spatial limitations. Attributed to the potential reinvention of service process, procedural and technical difficulties for client coproduction could also be reduced. Consequently, clients would be more willing and capable to get engaged in O2O client coproduction with the effective support of Internet.

**Third Stage: Activation**

When clients find themselves motivated to get engaged, they enter the third stage to activate the implementation of O2O client coproduction. However, service providers have various expectations on their contribution in on-/off-line layers.

As in O2O client coproduction, output and outcome are mainly produced offline, clients are mainly expected to contribute to service input. For example, clients could contribute to the service designing through user participation and open innovation. This coproduction of knowledge and value could be a solution for the effectiveness and efficiency of service delivered (Pohl et al., 2010). It also helps to get service provider better informed of clients’ demands, and they could thus produce and deliver relevant service to clients who have provided this information according to their preferences (Etgar, 2008). In addition, clients could be integrated to a reciprocal network in that they could provide supports like information, skill and even other resources to others (Lee & Choi, 2017; Pai & Tsai, 2016). These support could be transformed into the input of other clients’ coproduction. In this process, internet plays an essential role as a platform for clients to conveniently coproduce service input. However, it is notice-worthy that the online coproduction of input is not the end of O2O client coproduction since the online layer is eventually to serve the need of offline coproduction. Therefore, client coproduction of service input online is elicited by service provider in order to encourage and promote clients’ contribution to service process, output and outcome.

In the offline layer, clients are firstly expected to contribute to the process through transforming themselves. Clients coproduce process by actively (sometimes passively) complying to service providers’ regulations or motivations so that they “together produce the desired transformation” (Whitaker, 1980). Meanwhile, clients could also contribute to the service production through producing output and converting the output into outcome in offline
layer. In this process, clients are directly involved in service customization, and promoting service performance and quality jointly with service providers.

Nevertheless, client coproduction in on-/off-line layers are not entirely separate with each other. Online layer plays an important role in activating and eliciting the offline coproduction. In general, Internet radically reduces the cost of mobilization efforts (Krueger, 2006). More specifically, Internet provides a variety of approaches with comparative low cost to activate offline coproduction.

First, Internet could be used in nudging clients (Esposito et al., 2017). People will need nudges when decisions are difficult, when they do not get prompt feedback, and when they have trouble understanding their situations (Thaler & Sunstein, 2009: 72). Internet could be important to nudge online users to coproduction offline through several ways. One is to reveal the instant output or outcome to clients so that they could get prompt feedback about their contribution and benefits in O2O client coproduction. Another way is to amplify the impact of peer pressure to clients through online social network. Offering instant supportive information could also help to decrease the difficulties in clients’ decision making. Through nudge, the choice architect is impacted by Internet, promoting the possibility that online users might actively engaged in offline service coproduction.

Second, Internet could be an essential vehicle to induce clients in O2O client coproduction as well. Such motivators include sanctions, material rewards, intrinsic rewards, solidarity incentives and normative appeals (Alford, 2009: 66). Internet could be used in monitoring and reporting actors’ behaviors through service data record, which is the foundation for providing selective incentives and prevent free riding. This promotes the possibility of coproducing collective goods (Ostrom, 1996). In the meantime, Internet also provides vehicles to meet intrinsic and social demands through online social supporting mechanisms and social identity, transferring online social support to social psychological factors (Chiu et al., 2015). This is also related to clients’ offline behaviors (Chambers et al., 2017; Chiu et al., 2015). Consequently, online interaction among service providers and clients are more and more deeply impacting clients’ contribution and coproduction offline.

Forth Stage: Evaluation

Evaluation is the last stage of O2O client coproduction. In this stage, clients give assessment of output or outcome of coproduction, and decide if they are willing to get engaged continuously. In accordance to Service Dominant Logic, service provision is a durable exchange process between provider and client (Osborne et al., 2016), the continual intention of client is thus essential for O2O client coproduction for the long run. In this stage, Internet is important to support clients to evaluate their cost and benefit, and make their decision to coproduce in next round.

Varying from the previous stages, the impact of Internet is extended from offline to online in evaluation stage. Internet could be used in service data monitor and collection, and visualizing to clients afterwards. Clients could thus learn the reality and detail of their coproduction, which would thus compose of their efficacy and motivation in coproduction in the next round.
In addition, Internet also provides an online platform for clients to exhibit their evaluation of coproduction to other clients of the virtual community. Word of Mouth, aforementioned, is important for clients to assess the service from other clients’ perspectives. Internet also provides opportunities for clients to provide feedback to service providers. Therefore, Internet extends the offline coproduction information into online platform, so that this information could be transited into online input of coproduction in the next round.

In sum, O2O client coproduction is a continuous process not only because clients are called for to get engaged in the long run, but also because the online and offline layers are continuously intertwining and interconnected with each other, providing lasting impact on clients’ motivation and behavior in coproduction. Internet is the key in this connection among various stages and rounds of O2O client coproduction. This mode of O2O client coproduction reveals the fact that online platform is so important to offline service coproduction that it not only provide resources like information, knowledge and value to clients online, but also offers a more complex approach that service providers and clients are interacting with each other in both online and offline layers. Utilizing ICT could thus give birth to a new type of client coproduction that is different from the traditional linear offline coproduction.

**O2O Client Coproduction of Public Bike Service in China**

Public Bike Service (PBS) means citizens could rent and use public bikes that are owned and maintained by the public or private providers, for their transportation demands, rather than use their own bikes. Generally, residents could find and unlock public bikes in given public bike stations, and return the bike to the nearest station to their destinations. If PBS consumption is charged, it is usually priced based on the distance or time that clients use the bike. While PBS providers would be responsible for maintaining the quality and quantity of both public bikes and bike stations.

Since its first initiation in Amsterdam, Netherlands, back to late 1960s (Shaheen et al., 2010), PBS has been an emerging fashion way for navigating through dense urban areas, which is perceived as economic, efficient, and healthy (O’Brien et al., 2014). In recent years, PBS is increasingly introduced in more and more cities in China. Rational for this trend lies in its advantages of relieving transportation pressure in urban areas, substituting vehicles that accelerate Carbon emission with green transportation and promoting regular exercises of riders. For clients of PBS, they can access public bikes without bearing the costs of bike ownership (Shaheen et al., 2010), while for urban administrators, PBS could be integrated into public transportation system, and offer an important solution for “Last Mile” dilemma for urban transportation (Shaheen et al., 2010). Consequently, Chinese cities introduced PBS in urban areas in 2005, providing public bikes in areas like subway stations and residential estates.

Different from previous studies, which are investigating PBS from the perspective of Urban or Transportation Planning, this article argues that PBS is a type of client coproduction of public transportation service requiring citizens’ active contribution and compliance. First, it is because PBS requires client coproduction of service process by transforming their transportation behavior and habit. After all, government can never force citizens to ride public bike as
substitution of other transportation. Second, service providers could only offer bikes as service output, but converting this output into transportation as service outcome is accomplished by clients themselves through riding to their own destinations. That is the coproduction of service outcome. And finally, PBS requires clients actively comply to proper bike usage. The improper usage of public bike would add to the cost of service providers, and hurt the service quality of other clients eventually. Consequently, promoting client coproduction in PBS is vital to a PBS program.

Due to the lack of client coproduction, the development of Chinese PBS is not as smooth as some service providers estimated. For several years, many Chinese cities initiated their modes of PBS but turned out to be failed. The emergence of O2O client coproduction of PBS, however, to some extent conquers these difficulties, and thus leads to a rapid growth of Online Sharing Bike (OSB) in Chinese market. In this part, the case of Chinese PBS is discussed to analyze how the usage of Internet platform could enable a new mode of O2O client coproduction in PBS provision, that is different from previous offline PBS modes.

*Previous Efforts in PBS client coproduction*

PBS is considered by the government to be public service in China (Lohry & Yiu, 2015). Over 60 cities in China has established PBS system so far (Wan et al., 2016). In 2005, Beijing Municipality initiated the PBS in its urban areas to meet the potential demand of public transportation before and during Beijing Olympic Games (Zheng & Zhu, 2014). Two companies were licensed to run the PBS with the market price. However, clients are not willing to pay high for PBS consumption, due to the general low price of other public transportation subsidized with public expenditure in Beijing. For example, Beijing Municipality was investing more than ten billions RMB (1.47 Billion USD) each year for the subway transportation between 2009 and 2014 (Beijing Price Monitor Center, 2014), keeping the subway ticket price to be generally lower than 3 RMB (0.43 USD) per trip for more than five years. This extremely restricts clients’ estimated expenditure on transportation. On the contrary, the cost to maintain service quality, like quality and quantity of bikes and bike stations is too high to be covered by limited benefit for service providers.

In addition, the limited interaction between service providers and clients restricts the potential for client coproduction so that little contributions from clients could be expected. Functions like bike condition examination, clients’ behavior supervision and bike station maintenance significantly add to the service production cost to PBS providers. Hence it is not surprising that the two service providers bankrupted very soon, declaring the failure of effort of PBS marketization (Wang et al., 2011).

A short period later, another mode of Public Private Partnership (PPP) is initiated as refinement of the marketization mode. The PBS in Wuhan City is run by private enterprises while subsidized by government through Purchase-of-Service Contract. The PPP model attracts great attentions after its emergence in 2009 but very quickly, many problems in the service provision were reported. The major problems are related to the limited bike stations, broken bikes and even the termination of service in some areas in the city (Zhu, 2014). Citizens complained that the available bicycles are too hard to be found and the service time is even too short (Lohry & Yiu, 2015). As same as in Beijing Mode, interaction between clients and service providers is still
limited to human-machine interaction, which restricts the potential of client coproduction. In addition, some reports even found the service providers transferred their resources to other industries like property market and clinical energy after they accumulated some profits and assets (Wang, 2014). This leads to the critics of PPP in the Chinese PBS that the private service providers could not serve public interest and welfare (Lohry & Yiu, 2015). Consequently, the limited motivations for service providers to sustain PBS attribute to the failure of PPP Wuhan Mode of PBS, implying that government subsidiary itself could not mitigate the obstacle of client coproduction of PBS in China.

The failures of the former two models make the success of Hangzhou Mode outstanding in Chinese PBS. Hangzhou Municipal, from the very beginning, established a state enterprise in the name of Hangzhou Public Transport Group Co., Ltd., another state enterprise, to run PBS exclusively (Hangzhou Public Bike Service, n.d.a). This Government-Run Mode has managed to sustain high service quality as the high cost of service maintenance is complimented by public expenditure. Although similar problems could still be witnessed as in Wuhan, like limited bike stations, broken bikes, and short service time for instance, Hangzhou managed to increasingly improve its service quality with the government incremental investment. With the low price, wide coverage, and high quality of PBS, more and more Hangzhou citizens are willing to choose public bikes as substitution of private vehicles or other public transportations. Until the end of 2016, 3737 stations have been constructed, and 86.8 thousand bikes have been provided to 0.74 billion clients in Hangzhou (Hangzhou Public Bike Service, n.d.a). Hangzhou Mode has also been introduced in PBS of many other cities. For example, Xi’an Municipal has been following Hangzhou’s pace to invest over 0.2 billion RMB (29.14 million USD) to provide 42 thousand bikes and 1460 bike stations since 2013 (Wang, 2016). Nanjing Municipal also invested about 0.11 billion RMB (16.03 million USD) to its PBS in 2015. In general, the past years witnessed rapid growth of public expenditure on PBS, and rapid service diffusion of Hangzhou Mode towards more Chinese cities.

However, this mode still has drawbacks. Since the service is run, or monopolized in actuality by state enterprises and the profit as well as the cost are thus mainly taken over by the public expenditure, the service providers’ motivation to promote the service efficiency is doubt-worthy (Wang et al., 2011). In addition, the cost itself might cause great burden on public budget. It is reported that over 80 million RMB (11.66 million USD) is invested in PBS of Hangzhou each year (Wan et al., 2016). Given the great demand to expand service provision, even if the municipal has been seeking other sources of funds, through advertisement for instance, the PBS could potentially become a huge pressure for the public budget in the future.

Table 1. Previous Modes of PBS Client Coproduction in China is inserted here.

Previous studies mainly attribute the failures in Marketization and PPP modes to the high cost and limited motivations for providers to promote service quality (Lohry & Yiu, 2015; Wan et al., 2016). PBS thus becomes less attractive to private providers so that Government Run Mode seems to be a final solution. However, this article argues that the failures of many previous
effort in PBS provision is due to their lack of client coproduction. On the contrary, O2O client coproduction could serve to mitigate the obstacles in PBS provision instead of seeking help of public financial investment. It is through getting clients engaged in service coproduction, O2O client coproduction could somehow conquer the difficulties previous PBS modes faced, and establish a new mode of PBS provision.

In fact, ICT has already been introduced in PBS provision. One way to utilize ICT in facilitating clients’ consumption of PBS is to use Two-Dimension Code in service transactions like registration and payment (Sun & Zhang, 2016). Transaction cost is thus expected to decrease, as clients are no longer required to go to offline service stores to open their PBS accounts, and keep an IC card for service consumption. Many Service Operators have also registered accounts on Social Network Site (SNS) or established APPs on mobile devices so as to deliver service information (Xu, 2016). However, the limited interaction among service providers and clients still prevents providers from eliciting client coproduction from online to offline. The potential of ICT in PBS provision has not been fully dug out until Online Sharing Bike (OSB) Mode was adopted by two social enterprises, Mobike and OFO in 2016.

**Online Sharing Bike Mode**

The emerging mode of OSB, utilizing ICT in service coproduction, manages to promote O2O client coproduction so that it is now enjoying high market proportion in China. It is reported that more than 200 thousand of clients in Shanghai have registered within just 100 days since service is released on April 2016 to Mobike, one service provider of OSB (Li, 2016). Another service provider, OFO also ‘connects about 10 million registered users with over 1,000,000 bikes across 34 cities in China[,] the application has booked more than 100 million rides’ (OFO, n.d.b). According to an consulting report (iResearch, 2017), the weekly active user of the major two OSB providers has hit 10 million in late February 2017, which is a great proportion of transportation market.

![Figure 2. Weekly Active User of Mobike & OFO between 2016/11-2017/02 is inserted here.](image)

The main difference of OSB mode lies in its service technology and function. It enables clients to use App (or SNS as substitution) to locate the available bike, unlock the bike, pay for the transaction, report bike problems, and give review of service. Service could also monitor the bike condition and supervise clients’ behaviors through ICT. Hence the major operational functions are moved online, compared to traditional offline PBS. But more essentially, OSB mode is different from the previous three PBS modes throughout all its stages of client coproduction process.

**First Stage: Precondition**

In the precondition stage, Internet enables the creation of an online layer for OSB client coproduction. As mentioned above, functions like searching for a bike, unlock the bike and pay for the consumption are all transited to online platform. Meanwhile, the online contact channel
through smart phone Apps enables clients to communicate with customer service instantly and conveniently, breaching the block between clients and service providers in previous PBS modes. Providers are relieved from sustaining offline service store with online remote work as well. It also enables the potential for clients to contribute to the process of OSB, since when they come across a broken bike, clients could be expected to report bike problems through digital contact, rather than waiting for service tam to find out the broken bike when they are examining bike conditions. Hence some cost of service maintenance could be transferred to clients through O2O client coproduction.

In addition to the usage of App, service providers of OSB also attach emphasis to the online social network of clients. For instance, online WeChat group has been created for Bike Hunters, clients who are actively participating in voluntary service supervision and maintenance, like finding out and reporting broken or stolen bikes (Song et al., 2016). This online social network, which is seldom established in previous PBS modes, adds to the communication channels among active clients and service providers, and incubate tight cooperation and collective action among them in the offline layer.

Besides extension of social ties from online to offline, Internet also adds to the technical feasibility of OSB in offline real world. GPS smart lock has been introduced in locating bikes both for clients to use and for service providers to monitor, which relieves OSB provider from maintaining bike stations that serve to park and lock public bikes in previous modes of PBS. The service could also be more customized since clients could park their bikes in the any closest legal parking points as they wish (OFO, n.d.a), rather than to stations which might be fully occupied in rush hours.

In sum, Internet has laid essential foundation for O2O client coproduction of PBS innovation, in that it creates an online platform and network for service providers and clients that has not engaged in the previous modes. The impact of online layer could also be extended into offline, and increases the technical feasibility of service innovation, offering more benefits to both service providers and clients.

Second Stage: Motivation

In motivation stage, clients could be motivated in O2O client coproduction with the impact of Internet. As mentioned above, choosing PBS to substitute other transportation is an essential part of PBS client coproduction, in which Internet could play an important role.

In online layer, the utilization of Internet platform decreases the transaction cost of contact and payment. Compared to offline PBS coproduction in that clients are required to register for service by go to the local service store with their photo ID (Hangzhou Public Bike Service, n.d.b), OSB enables clients to register online with their phone number or email address. Transactions are also completed through online payment rather than paying by IC card. Clients could also easily find available bikes with App on their mobile device, instead of going to nearest bike stations without knowing if any bike is available there. In sum, Internet extremely decreases transaction cost for clients to consume PBS compared to their experience in the previous modes, and thus add to their motivations in PBS client coproduction.
Meanwhile, Internet is also beneficial to motivate clients in offline layer. With reduced production and transaction cost for providers to maintain bike stations and regulating clients’ service consumption, they would find it more profitable to sustain and promote the PBS quality. In return, clients could potentially enjoy higher service quality with limited price, compared to the failed previous modes. Furthermore, the benefit of digital contact and e-transaction is also extended to offline layer. Rather than complains about limited service time in Wuhan and Hangzhou modes (Wang et al., 2010), OSB could provide service 7*24, including instant automatic service guide and support as well. This also meets the service material demands of clients. Let alone the higher service customization in OSB by using GPS smart lock. In sum, the profit-motivated providers would be more willing to meet the material demands of clients with limited price, which would be helpful to engage clients in OSB coproduction.

*Third Stage: Activation*

In activation stage, clients are actively engaged in OSB client coproduction. In online layer, clients could contribute to service input. For example, some clients are actively reporting broken bikes, or improper usage of bike by other clients (Song et al., 2016). These service input coproduction is even promoted with those aforementioned online active user groups. Service input coproduction helps to reduce service providers’ cost to examine bikes’ condition, and supervise clients’ behaviors. Clients are also giving feedback for the service, through providers’ SNS for instance (Mobike Shanghai, 2017). However, this client coproduction of service input is limited in previous offline PBS modes without a internet platform.

In offline layer, clients firstly contribute to process as they choose to ride public bike instead of other way of transportation. In addition, they also contribute to convert service output into outcome, by riding bike to their destination, which is their desired outcome. During their offline coproduction, internet is also important is it enables service providers a dozens of online instrument to impact clients’ offline behaviors. For example, Apps with clear direction for available bikes could potentially help to nudge clients to choose PBS instead of other vehicles when they are considering about transportation. In addition, as a way of marketization, OSB providers allow clients to share coupons through Social Network Sites, like WeChat and Weibo, after each transaction (Sohu, 2017). This could potentially add to the peer pressure for others who are not consuming OSB when they find their SNS chatting groups and new events are filled up with these coupons. In addition to nudge, Internet also enables a set of virtual credit rewarding and sanction institutions that could regulate clients’ offline consumption behaviors. For example, OSB allows clients to report improper usage of public bike to earn credit online (Hu, 2017), which provides material incentive for clients to contribute to service monitor. Furthermore, showing off of their OSB coproduction on SNS could also help to express clients’ norm of Green Travel, and express their identity as fashion fans of O2O e-commerce, which is popular in China right now. Finally, Internet offers technical instruments for service providers to monitor clients’ improper consumption, so that they could provide sanctions in time, which is an important motivator for clients’ compliance. Consequently, it is reasonable to argue that Internet adds to PBS providers’ tool kit in nudging, motivating and regulating O2O client coproduction, using online tools to impact clients’ offline behaviors.
Table 2. Mobike Credit Rewarding and Sanction Institution is inserted here.

Forth Stage: Evaluation

In evaluation stage, clients assess the outcome of their OSB coproduction. The assessment originates from their offline experience while Internet visualizes it in online platform. Clients could easily check their consumption records in Apps, and learn their costs in OSB coproduction. The riding distance, calories burnt and carbon emission reduced each time they use public bike are also visualized to clients in the Apps. Hence, O2O client coproduction helps clients to understand their benefits and cost with the usage of Internet. In addition, Internet provides opportunities for clients to give feedback to providers after consumption and assessment, and thus contribute to service input in the next round. In this sense, Internet bridges the gap between various rounds of O2O client coproduction, and adds to clients’ continuant intention in getting engaged.

In sum, OSB service mode is significantly different from the previous offline PBS modes in its emphasis on O2O client coproduction. Internet platform enables OSB to provide PBS through an entirely different service process with on-/off-line layers, and enables service providers more approaches to interact with clients and elicit coproduction.

Conclusion and Discussion

With the rapid development of Internet Technology and Internet-based industries, coproduction utilizing ICT has become increasingly common in public service delivery. This article responds to the gap in previous literature about how Internet platform serves to facilitate the emergence of a new type of client coproduction, namely O2O coproduction.

This article develops a mode for O2O client coproduction, analyzing the potential impact of Internet on client coproduction in different stages, and explores how service providers could utilize Internet platform to elicit offline client coproduction. Based on the case of Chinese Public Bike Service, it finds that Internet is essential in creating a virtual community of clients and service providers and thus adding to their potential to cooperate on the base of digital contact. With tighter interaction, service providers have more opportunities and less cost to support client coproduction. In addition, this virtual community is also beneficial for creating social ties among clients as well.

Besides, Internet is also important to amplify service providers’ tool kit in promoting offline client coproduction with online mobilization. Internet could help to nudge and motivate clients to be actively and voluntarily contributive and compliant. In this sense, digital interaction among service providers and clients is extended into offline coproduction.

Furthermore, Internet helps to connect various stages of O2O client coproduction. Internet-based virtual community provides preconditions for O2O client coproduction, impacts clients’ motivation, provides service providers tools to promote client coproduction, and enable online evaluation feedback. In addition, the outcome of O2O client coproduction is also converted into clients’ efficacy and input of O2O client coproduction through online platform. Consequently,
Internet is essential in structuring the procedure of O2O client coproduction, and adding to clients’ continuance intention.

It is noteworthy that this article does not intends to argue that O2O client coproduction is surely more effective or efficient than traditional offline coproduction. In fact, this article intends to depict how Internet could enable the emergence of a new type of client coproduction which is different from traditional offline coproduction in the context of Information Society. O2O client coproduction, as an example, helps to contribute to our understanding of how this new type of client coproduction could be decomposed into online and offline layers. The variation between O2O client coproduction and traditional offline coproduction reveals the potential for Internet-based new type of coproduction mentioned in the previous studies (Meijer, 2012; Osborne & Strokosch, 2013).

Given the fact that many types of public service are provided offline, the findings in this article helps to reveal the potential how internet and new technology could be added into these offline-based public service fields and improve their possibility to engage clients in service coproduction. In this sense, this new type of coproduction could be compatible to a wide range of public service, deriving some of its communication and interaction functions into online layer, and promoting offline service coproduction with online digit contact. Future studies could pay more efforts to examine this O2O client coproduction mode’s adaptation to other service programs.

Findings in this article could also relate to arguments in parallel research on e-participation that on-/off-line layers of public participation are impossible to be divided (Albrecht 2006). It is found in this article that client coproduction also shares this point of view as online and offline of client coproduction are not separated but reinforcing to each other. Online client engagement could not substitute offline service coproduction, but it could potentially add to clients’ willingness and ability to contribute. And offline experience of coproduction could also be converted into input of online layer. This finding also relate to the appeal for a more comprehensive understanding of e-service in its service chain. Since e-service is usually a part of physical service, ‘it is thus necessary to examine the different parts of public services and identify these parts according to their role or function’ (Jansen & Ølnes, 2016). Hence, it is valuable for future studies to attach more attention to empirically and quantitatively examine the interrelations between online and offline layers in e-service coproduction.

Given the reassessment of citizens’ role in literature of e-service, this article also helps to reveal the potential benefit of clients’ active coproduction to service quality. As OSB mode has just emerged for more than one year, the quantitative data is not concrete enough to support a correlation analysis so far. However, the mode of OSB could still be valuable to reveal the fact that the usage of Internet platform enables service providers more approaches to elicit client coproduction than in previous modes of Chinese PBS. The case study reveals the fact that clients are important for PBS provision, as their active contribution has great potential to relief service providers from many production and transaction cost, and thus promote the benefits for both service providers and clients. This emphasis on O2O client coproduction distinguishes OSB from the previous modes and attribute to the success of OSB in Chinese Public Bike market.
Another implication of the findings in this article lies in that, even for those service traditionally perceived as dominated by public sector, government-run mode might not be the only panacea to provide public service effectively. As in the case of Chinese PBS, the market failures that exist in Beijing and Wuhan Modes persuade people to regard government-run mode as final solution of Chinese PBS provision before the emergence of OSB mode (Wang et al., 2011). The case of OSB reveals the potential of O2O client coproduction in public service that is perceived as dominated by public sector. Even in the context of China that is traditionally perceived as a strong state with weak civil society, the utilization of Internet platform and client coproduction could still provide an effective alternative to direct government. This offers insights on coproduction’s potential to be adapted into wider service fields and contexts.

However, it is not arguing that client coproduction has entirely cure the market failure. Challenges for OSB mode also start to occur recently in Chinese cities. For instance, as OSB enables clients to park public bikes anywhere along the streets permitted by urban administrators, the congestion and improper parking of bikes near subways stations or real estates in the rush hours have caused potential problems for pedestrians and vehicles passing by (Zou & He, 2017). This also leads to the potential conflicts between OSB providers and urban administrators (Zhang, 2017a). Therefore, governments are still essential in regulating the PBS market and service provision, so that the service coproduction could be more beneficial for public interests. In fact, some urban governments in China, like Shanghai, have just begun to initiate public hearings on how to regulate the current OSB service provision, collaborating with both citizens and OSB providers (Zhang, 2017b; Zou & He, 2017). This could also be an interesting direction for further studies on the institution and government regulation in O2O client coproduction.

Nevertheless, findings in this article provides a practical starting point for empirical research in the future. Researchers of coproduction could pay more attention to coproduction utilizing Internet technology, and focus on the relationship between Internet usage and client contribution in input, process, output and outcome of O2O client coproduction. Correlation analysis could be conducted to examine the effect of Internet platform usage in various stages of client coproduction. In addition, the impact of Internet on those motivators also deserves empirical examinations. Finally, the potential challenge of digital gap in O2O client coproduction is also an interesting issue for future studies.
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Data Source: Summarized by the author
Figure 2. Weekly Active User of Mobike & OFO between 2016/11-2017/02

Data Source: iResearch, 2017
Table 1. Previous modes of PBS client coproduction in China

<table>
<thead>
<tr>
<th>Exemplified City</th>
<th>Marketization Mode</th>
<th>PPP Mode</th>
<th>Government-Run Mode</th>
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<tbody>
<tr>
<td>Service provider</td>
<td>Beijing Private Enterprise</td>
<td>Wuhan Private Enterprise</td>
<td>Hangzhou State Enterprise</td>
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<tr>
<td>Revenue</td>
<td>Self-Financing</td>
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<td>Government Subsidy</td>
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<tr>
<td>Operation Condition</td>
<td>Failed</td>
<td>Failed in most cities</td>
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</tr>
<tr>
<td>Major Challenge</td>
<td>a) High cost compared to low income; b) Limited interaction with clients.</td>
<td>a) High cost compared to low income; b) Limited interaction with clients; c) Deviation between provider and government.</td>
<td>a) High burden on public budget; b) Monopoly.</td>
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*Source: summarized by author*
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<th>Table 2. Mobike Credit Rewarding and Sanction Institution</th>
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<tr>
<td><strong>Gain Credit</strong></td>
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<tr>
<td>Each ride</td>
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<tr>
<td>Report broken bike</td>
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<td>Report incorrect parking</td>
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<td>Using another user’s invitation code when registering</td>
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<td>Successfully invite a friend to use Mobike</td>
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<td>Park in a compound</td>
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<tr>
<td>Abandoning the bike when intercepted by police</td>
</tr>
<tr>
<td>Forget to lock, but eventually retrieve the bike</td>
</tr>
<tr>
<td>Use a private lock</td>
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<tr>
<td>Forget to lock and bike is lost</td>
</tr>
<tr>
<td>Illegally transporting the bike</td>
</tr>
</tbody>
</table>

Data Source: Mobike, n.d.
EXPLORING HOW THE STRATEGIC ACTION FIELD FRAMEWORK ILLUMINATES COPRODUCTION: SEEING THE UTILITY OF MATERIAL ARTIFACTS (SANDFORT AND PHINNEY)

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Coproduction – namely how citizens and professionals are involved in public service provision – is a burgeoning area of research in public management. While often rooted in theories of democratic engagement, coproduction research does not often acknowledge a simultaneous intellectual foundation in policy and program implementation analysis. While the topic of policy implementation has followed a meandering intellectual path (deLeon & deLeon, 2002; O’Toole, 2004; Saetren, 2005), it also is a robust and growing field within behavioral science shaped by distinct questions (Nilsen, et al, 2013). To help integrate these and other traditions of implementation research, Sandfort and Stephanie Moulton developed the strategic action field (SAF) framework for implementation analysis (Moulton and Sandfort 2017). Grounded in sociological theory, this framework presumes a fundamental human motivation for sociability, rather than the common policy analytic assumption of economically self-interested actors (Fligstein & McAdam 2012; Latour 2005; Giddens 1984). To analyze the implementation process, analysts must appreciate and engage the complex systems dynamics within nested social contexts (Fligstein and McAdams 2011; Colander and Kupers 2014).

As a result, this framework has some potential for broadening the intellectually tradition of coproduction. This paper considers that possibility and looks specifically at how material artifacts can be useful in shifting and shaping the authority of social systems when citizens and state-actors are engaged in coproduction. We begin with a brief overview policy implementation scholarship and describe both the strategic action field theoretical framework and how material artifacts can be understood it as tools to shape social system dynamics. We then summarize an exploratory case of co-production involving a county government that is involved in developing its own capacities for engaging with people living in a low-income
community. In that case, we have observed the consequences of material artifacts and how they act as potent resources that enable a co-production process. The provide tools for managers and enable collective action. In our analysis, we consider what potential insights might exist for deepened understanding of the co-production process at the frontline of policy implementation systems. We conclude by considering the implications of this type of design-based implementation research for the community of co-production scholars.

**POLICY IMPLEMENTATION ANALYSIS: NEW INTELLECTUAL AVENUES FOR CO-PRODUCTION?**

Policymakers, practitioners and scholars have wrestled with the complexities of policy and program implementation for more than a half century. Some start from the premise of “what went wrong?” Why did the policy fail to achieve the results that were intended? Others, more optimistically, seek to understand conditions where things “go right;” what factors help lead to policy or program success? Some try to explore how we observe conflicting results from implementing the very same policy or program across states or localities, even when authorized by the very same legislation and funding mechanism. Researchers have conducted case studies, analyzed survey data, and developed theoretical frameworks in attempt to make sense of these questions and quandaries (Sandfort & Moulton, 2015). Recently, however, there is renewed interest in conceptualizing implementation as occurring within complex emergent systems, attending to both the structures and social processes that shape what policy becomes through implementation.

This interest arises, in part, because of the considerable attention to the study of implementation in medical and behavioral sciences. It emerges from intervention studies that
identify ‘what works’ through field trials and then seek to replicate these evidence-based programs. While increased internal validity is now achievable through a range of research approaches, such as randomized controlled experiments, fixed-effects and regression discontinuity models, these designs to little to help investigators identify what elements of an intervention are causal or how what is causal can be called to realize that affect in other settings. These concerns are distinct from traditional implementation scholarship in public management and public affairs (Roll, Moulton, and Sandfort 2017; Nilsen et al. 2013).

Unfortunately, many researchers are seeking, like the first generations of public affairs scholars, to predict implementation success. In an often-cited systematic review of nearly 500 published articles in health care, Greenhalgh and colleagues (2004) develop a model with over sixty variables. And a 2012 review in the American Journal of Preventative Medicine identified 61 different models for investigating dissemination and implementation (Tabak et al. 2012). This field of scholarship is realizing parsimonious prediction of implementation is an illusive goal. Studies confirm what public affairs studies of implementation concluded in the 1980s and 1990s - there are no magic tactics for changing implementers’ behaviors. The pursuit of reductionist models will be unlikely to yield much that is useful to improving implementation in practice.

**Strategic Action Field Framework for Implementation Analysis**

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7 The proliferation of these models has created a movement to develop more consolidated measures. There is a “Consolidated Framework for Implementation Research (CFIR)” that brings together 39 of the main research constructs deemed to be most often significant in field trials and groups them in 5 domains; the U.S. Department of Veterans Affairs is investing in its continued refinement by a collaborative web platform. The Seattle Implementation Research Collaborative is undertaking a review of more than 450 tools to systematically identify and consolidate “dissemination and implementation” data collection instruments.
These concerns led Sandfort, with Stephanie Moulton, to revisit the tradition of policy and program implementation in public affairs and seek to develop an integrated model to inform more effective practice. The theoretical framework focuses on providing conceptual clarity to an understanding of implementation as occurring through multiple levels in a complex system. Rather than focusing on prediction, the approach offers analytical levers so that scholars and implementers can become more knowledgeable about how actions and results are related when trying to use policy or program ideas to make institutional change on behalf of a target population. It highlights that effective implementation changes both the system doing the implementing and conditions for the group targeted by the policy or program. To analyze how this change occurs, analysts must appreciate and engage the complex systems dynamics within nested social contexts (Fligstein and McAdam 2012; Colander and Kupers 2014). While the framework is published in a special symposium of Policy Studies Journal focused upon the integration of public management and public policy scholarship (Moulton and Sandfort 2017), some highlights are shared here to frame questions of how it might enrich studies of coproduction.

First, building upon the work of other governance scholars (Hill and Hupe 2014; Ostrom 2007; Robichau and Lynn Jr. 2009), policy and program implementation occurs at various levels, each that serve distinct purposes. At the most macro-level, there are the policy fields, networks of institutions activated to engage in implementation activities in a particular place and time (Stone and Sandfort 2009). At this level, understandings of the program technology are developed, viable alternatives are determined, and resources are assembled to support the actual implementation activities within organizations. This is a complex process that often can
involve competing coalitions and advocacy positions (Weible, Sabatier, and McQueen 2009).

Conceptually, the mezzo-level of implementation system is comprised of organizations where the policy or program is integrated with existing operations, accountabilities and practices, most often in ways that are consistent with existing procedures and practices (J. R. Sandfort 2010; Khademian 2002; Coburn 2006). In the SAF framework, organizations playing two particular roles are highlighted: authorizing organizations often interpret and mediate the authority of laws and public accountability; service organizations deliver public services. At the micro-level, the framework draws attention to the frontlines of implementation systems where interactions between the system and target groups occur. At this level, the policy or program is enacted so that it is understood or experienced in some ways by the individuals, families, communities, or markets it is intended to influence. While frontline staff respond to signals from the organization (e.g., rules, incentives, or performance targets), they also exert agency by relying upon their own professional norms, or beliefs developed through experience (Coburn 2005; May & Finch 2009; Maynard-Moody& Musheno 2003; Sandfort 2000). It is at this level of the implementation system where coproduction scholars often focus their attention.

Second, the SAF framework stresses that each site in an implementation system has distinct social dynamics and operates as a unique social system. At each site, people have a collective understanding of their purpose, know their relationships, and implicitly understand what actions are considered to be appropriate and legitimate in that context (Fligstein & McAdam 2012). During implementation, actors try to understand the program or policy

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8 It is quite possible, however, that organizations playing other roles might be quite important in shaping a particular implementation system; for example, organizations that create critical resources such as research, training, or supplemental funding might also be important to analyze to understand complex system dynamics.
intervention, work with others to develop the terms and processes of implementation, and shape what is acceptable to others by exerting various forms of authority. In this notion, authority derives from the perceived legitimacy of the entity or person issuing the directive in that context (Blau & Scott, 1962; Suchman, 1995).

In fact, understanding the complex dynamics at each of these levels requires closely analyzing how actors evoke formal and informal authority during the implementation process. Building upon prior scholarship (Sandfort and Moulton, 2015), the framework highlight four types of authority brought into use when people try to reconcile the ambiguity that often surrounds implementation choices. Most often, public administrators and policy scholars focus upon the exertion of political authority, demonstrated through public laws, formal rules and regulation. But with the rise of new public management, there is also recognition of how economic authority – and ideas about competition, return on investment, or performance – affect how program implementation choices are shaped. Informal sources of authority also are quite significant. Professional norms and standards of behavior developed by associations and affiliations often align with deep ethical principles. Additionally, the beliefs and values that individuals develop from experience and interactions with their peers can significantly shape what gets done.

Finally, the framework draws upon social theory to highlight that human agency is significant in interpreting, deploying and responding to these sources of authority (Fligstein and McAdam 2011; Latour 2005; Giddens 1984; Bourdieu 1977). As a compliment to complexity theory, this recognizes that while there are many potential drivers of either change or stability within a system, individuals play potentially important roles. Through demonstrating “social
skill,” they can draw upon knowledge about that context to engage others in either collaboration or competition (Fligstein 2001; Fligstein 2008).\textsuperscript{9} As Moulton and Sandfort (2017: 156) write, ‘..socially skilled actors use their understanding of people in the context to develop an agreement about a plausible way forward. They influence others’ understanding by offering their interpretation of events, frame action options, and set an action agenda by engaging others and appealing to their interests. They can act as a neutral party and broker agreements between people who share distinct understanding of the tasks at hand.” The use of social skill is influenced and bolstered by an individual’s position within the field and the relationships they have built with others in it.

During implementation of a particular policy or program, there are multiple and often overlapping strategic action fields involved. In each, people try to understand the intervention, develop a process of change to link inputs and outputs, use materials and apply technical skills, and develop structures to try to coordinate the work performed. In carrying out these tasks, they rely upon different sources of authority, attempting to engage each other by using concepts and communication strategies that people within that context understand to be legitimate. In fact, within a particular social setting, people vest different sources of authority with more or less legitimacy. This notion helps to offer an explanation for why field studies so often document significant variation in implementation conditions and outcomes among

\textsuperscript{9}This theoretical approach has a different ontological assumption than many conventional policy analysis frameworks. Rather than seeing individuals as focused upon maximizing economic gain, strategic action field sees individuals motivated by social acceptability (Fligstein & McAdam, 2012; Moulton & Sandfort, 2017).
organizations implementing the same policy or program (Garrow and Grusky 2012; Sandfort 2003; Selden, el al 2006).

Thus the SAF framework offers an analytical approach to understanding the operation of various sites and drivers within complex implementation systems. The purpose of the model is not to predict implementation success or failure. Instead, it is to increase attention to the various parts of the system and describe a generalizable process that shapes what implementation is in practice. In its ideal, the complex systems involved in policy and program implementation should be oriented toward creating public value outcomes – both improvements in the system and in conditions for the group targeted by the policy – on purpose (Bryson, et al 2015; Sandfort and Moulton, 2015). Yet that often does not occur. The framework enables a pragmatic response because it highlights interrelationship among system parts and points to potential intervention points (Sandfort, 2017). As such, it offers the possibility of enabling scholars to carry out design-based research focused upon improving the frontline conditions where public systems and citizens interact. To do so, we must understand more about the particular elements within social systems and how they might be deployed to improve desired results.

**Focusing upon the Use of Materials and Artifacts**

Public deliberation research is likely familiar to scholars interested in coproduction. Within that body of literature, it is recognized that while engagement techniques and goals are important (Bryson et al. 2013; Creighton 2005; Kaner 2007, Nabatchi and Leighninger, 2015), it is clear that deliberative practitioners pay considerable attention to material objects that
include the physical setting, supplies such as butcher block paper, colored markers, and sticky notes, and visual products such as written proceedings or graphic newsletters (Girard and Stark 2007). Material objects can influence the subsequent events by drawing attention to certain insights, creating records, or inviting a deeper listening and engagement. In other words, material objects become significant artifacts when they are used to alter relationships and results (Latour 2005).

In other work (Sandfort and Quick 2017), we analyze ethnographic data to illuminate how there is a “deliberative technology” at work in participatory process. This concept focuses analytical attention on both the resources and dynamics that facilitators of such processes design and adapt during application. In this analysis, we discovered that material objects were critical resources that both shaped the nature of the deliberative interactions and gatherings and documented what resulted to assure that results were retrievable by others. In fact, we saw such objects operating as “props on a deliberative stage,” offering potentially significant resources that both facilitators and participants could utilize to shape what unfolded. In the empirical cases involving regional economic development, service delivery redesign, and state budget dialogues, material artifacts could be used to focus attention and challenge dominant forms of authority within the social setting of deliberation.

This finding is echoed in the scholarship of design. In environmental and product design, graphic renderings of contextual conditions are brought into a social space together with engineering and social science research. Through facilitation, stakeholders co-create artifacts that represent the key ideas of design that then shape organizational and policy decision-making (Cordon, 2012; Hester, 2012). The artifacts themselves end up having
significance within the social setting. They represent intention but they also shape attention. Issues that need further investigation, resolution of controversy between various stakeholders, hopes for future development – these all can be captured and shared through the material artifacts generated by professionals and citizens in the designers Charrette Process.  

To be explicit, however, the meaning or significance of a material object is not predetermined in either the deliberative or design process. Individuals with knowledge of the context – what the strategic action field framework calls “social skill” – use a handout, graph, photograph or model act when they want to focus others on collection actions. As social theorists have conceptualized (Giddens 1984; Goffman 1959; Fligstein and McAdam 2011), the material objects are resources. They are tools that might shape social dynamics and understanding.

Drawing upon an in-depth study of product manufacturing, Carlile (2002) theorizes about how material objects, which he calls “boundary objects,” function as essential resources in bridging differences. In Carlile’s conception, best practice reports, visual analytics, or performance measures can be used to bridge the syntactic, semantic and pragmatic boundaries that separate departments or organizations. The tools help represent information to others, offer a way to learn other alternatives, and transform their own understandings. They allow groups of differently situated individuals to consider what is and, by facilitating a process of examination and reflection, make changes. Others refer to these as “facilitative devices,” for

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10 This is a common professional practice in architecture. See, for example, the National Charrette Institute (www.charretteinstitute.org).
how they enable actors to manage the interactions between process, content, context and outcomes (Bryson and Finn, n.d.)

Within public management, the esteemed theorists Martha Feldman, Anne Khademian, Helen Ingram, and Anne Schneider further develop this idea. In a 2006 essay, they articulate that public managers interventions with citizens involves engaging across different ways of knowing (Feldman et al. 2006). Through inclusive management practices, both the design and implementation will be improved and the practice of democracy will be strengthen. To hone such practices, they draw scholars’ attention to boundary experience, boundary objects, and boundary organizations. While they draw upon another variant of social theory (actor-network theory), the overall approach is consistent to what is being suggested here. Actors can draw upon material objects to bridge the differences that often separate the ways of knowing that groups of people working together develop to solve problems.

Before turning to the exploratory case that illustrates these ideas, it is important to explicitly note how this theoretical understanding differs fundamentally than the rational actor theories that dominate much of public management research. In rational choice, individuals and institutions are assumed to have fixed preference. The formal authority, such as rules, policy, or performance criteria, are assumed to be both exogenous to the system and predetermined to be legitimate in shaping what happens during implementation. In the strategic action field framework, the opposite is assumed. Actors have many distinct constituencies to balance and they make strategic choices about how to use the forms of authority to satisfy the most compelling. Authority is endogenous to the system and emerges from the sense made by people as they grapple with their choices among potential frames.
offered by others to define problems and solutions. Oftentimes, this choice is influenced by their desire to be liked by others. Yet, cooperation between the various points of view must be constantly negotiated and realigned among people involved. Those who have social skill and are knowledgeable about the context have more abilities to provide leadership. Those able to deploy boundary objects that transcend the particular social setting are able to mobilize collective understanding and resources to get things done.

**AN EXPLORATORY CASE: DISCOVER TOGETHER**

In early 2017, we were brought in by a local county government to design and work with staff to build new organizational capabilities for authentic community engagement focused initially in a community with growing concentration of poverty. The senior leaders and county board were interested in moving beyond conventional approach to health and human service provision to more ‘generative’ approaches, defined by field leaders as focusing upon “generating healthy communities by co-creating solutions for multi-dimensional family and socioeconomic challenges and opportunities” (Oftelie, 2014).

Our team is drawing heavily about engagement practices and models from the Art of Hosting and Harvesting Conversations that Matter, a global community of systems’ change facilitators who share their knowledge through open source training workshops and practitioner gatherings (Wheatley and Frieze 2001; Lundquist et al. 2013; Quick and Sandfort

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11 From 2000 to 2015, the poverty rate in the community increased from 6.1 to 13.2, although the percentage of adults in the workforce remained the same. The proportion of families receiving public assistance benefits increased substantially. Simultaneously, the community experienced a significant increase in Latino/Hispanic residents.
This approach leads us to rely upon a Core Team of diverse team of community leaders who meet regularly to name the effort, design and implement the community engagement activities. Currently comprised of ministers, young residents, engagement staff from the city government and school district, as well as county-government staff, the composition of the “Discover Together” Core Team evolves as the project develops.

The first phase of the project involved analysis of secondary data about program participation and social and economic conditions. Members of this Core Team also carried out participant observation of numerous community meetings, a focus group with residents who are also employees of the County, and twenty semi-structured ethnographic interviews with notable community leaders, including city officials (including the current and past mayor), school district officials, nonprofit staff, a local historian, and leaders of different faith communities. The initial focus was to better understand conditions in the community, including assets and concerns, and better understand how the history of intergovernmental relationships influenced the potential of new service innovation that more deeply engaged the community.

This initial data collection uncovered many community assets: There are many resources and characteristics that appeal to young families. They are drawn to the community due its affordable housing, high quality schools, ample public space (including the parks and accessibility to the river), and the “small town feel.” Commutes to the center city are short and neighbors known one another. There is a palpable amount of loyalty and community pride present and many recounted a long-standing norm that children grow up in the schools and then return to the city to raise their own children after technical college or a 4-year degree.
These “Born and Raised” families possess a deeply embedded loyalty to the city and invest their time and money in local churches, schools, and community events.

There are, however, growing needs of low-income families who are attracted to the community because of its affordable housing. Within the schools, the number of children qualifying for free and reduced lunch has increased in recent years and there is recognition that children from such families have multiple needs the city and community are struggling to address on their own. The separation of services from one another, coupled with the transportation barriers that many face, make it difficult to access the services that do exist. The needs are acutely felt in the public schools. Since the late 1970s when the industrial meat packing plants shut down, economic development has been a challenge. The industry left behind an infrastructure that needed to be torn down, creating a long-felt burden on city resources. There is a general sense that the community lacks an adequate number of jobs, commercial and entertainment space, and there is limited ability to support a diver array of small and medium size businesses.

The interviews and focus group also identified the absence of community gathering spaces. While high school activities and sporting events are important, there aren’t many places where people gather for community events. Compounding this lack of physical gathering spaces is the absence of other types of avenues for shared experiences, such as a weekly or monthly newspaper for the city. While there are a number of active Facebook groups, they can also become easily captured by extreme voices. There also are few gathering spaces that bridge racial or generational divisions within the community. The racial division is particularly salient and notable for its generational dimensions. “New families” representing
Latino and African American families (or at least, families that include greater racial and ethnic diversity) were called out and contrasted with “old families” of older white households. The growing racial diversity appears to be something that older generations is wrestling with more than the youth, who are more accustomed to such differences because of their experiences in school. In conversations with residents, racial divisions often surfaced in the context of “change.” Participants mentioned that the city is changing in terms of its demographics and that this change is uncomfortable to some. Recent national events involving the Trump administration’s strict stance on illegal immigration have created a sense of fear within the Latino community surrounding deportation, the breakup of families, and of the government in general. Such sentiments are not defining features of the community, yet are important contextual dimensions that are present.

As a result of this information collection, the Core Team settled upon a simple purpose for the engagement activities during the second project phase: To discover how community members, community agencies, and the county government can work together to invest in making the community a great place for all who live, learn, work, and play here today and into the future. Specific activities are shaped by co-developed principles, and a developmental evaluation is documenting how the Core Team adheres to them: magnify and leverage assets of the community; build and invest in relationships across difference; identify resources to act on ideas from all parts of the community to support our purpose; believe that government can co-create capacity and broader solutions to community-wide challenges by helping to facilitate community conversations and enabling collective action; and play together and find joy in this work.
Throughout the implementation of the engagement activities, the Core Team is stressing the responsibility for community members to co-create solutions with the school district, and county and city governments. Through “pop-up” engagements at various community events and well-traveled by-ways, they are asking questions about central concerns about family circumstances: how stable is housing and what are the consequences when it is not? What are the consequences of income instability and insufficient access to food? How are people trying to access education and create safe places for their families? How are they assuring the environment is healthy and that well-being in supported? These questions seek to uncover information about factors research show are the social determinants of well-being and health. Through focused design charrettes, they are engaging community members in vision sessions about potential community gathering spots where social services, educational programs might be collocated with the historical society and city library.

**Role of Material Artifacts in Frontline Coproduction**

The strategic action field framework draws attention to the role of social systems at multiple levels in determining how a program or policy is understood and enacted by actors. Studies of citizen engagement in deliberative democracy and environmental design highlight the significance of physical artifacts. In the Discover Together exploratory case, some interesting insights are emerging about the role of material objects in supporting the coproduction process. Three themes stand out from this initial analysis:

First, rough sketches of conceptual frameworks are critical during the formation of a participatory process with individuals from diverse professional orientations. Such “collective impact” projects have become all of the rage in the last five years, fueling in part by the
mismatch between solo-sector solutions to intractable social problems, such as poverty (Kania and Kramer, 2011). While the strength of cross-sector collaboration is the multiple resources and perspectives that are brought together, this same diversity can provide challenging when shaping a vision, deciding upon strategies, and executing tactics. Understood theoretically, there are boundaries to be negotiated between people who conventionally understand and act in distinct strategic action fields.

In this case, we find that rough sketches of conceptual models provide essential cognitive reference points to help orient and align actors to their shared work. For example, at the beginning of the Discover Together initiative, county managers attended a three-day training offered to others in the state about participatory engagement processes. Various conceptual frameworks were presented that helped orient people to the emergent nature of participatory projects, including one that represents the convention processes of divergence and convergence, another that illustrates the process of moving between ‘order’ and ‘chaos’ in project management (Lundquist, et al, 2013). They also received a colorful training manual that summarized key terminology, frameworks, and engagement practices from the open-source Art of Hosting methodology (Quick and Sandfort, 2014). The models were presented organically at the training, in modules where trainer sit on the floor and draw key concepts on newsprint, with participants encouraged to write notes and questions in their training manual. As the Discover Together project was being shaped, these models were shared in a similar way as new members of the Core Team joined the effort, to help orient them to the work and make clear the explicit orientation towards coproduction. In these conversations, people who were trained reinforced the concepts, communicating their face validity, and shared parts of the
manual with others to explain the ideas more fully. This provided a durable reference used by the group throughout the project.

Second, providing tangible and evocative documentation of events is critical throughout the engagement activities. The documentation has taken multiple formats – large posters with compelling visuals of people or ideas, art created spontaneously in parks during events, large colorful planning templates with graphical illustrations of cause and effect relationships to prompt thorough design. Newsletters that summarize the insights shared by attendees and two-page documents describing the project purpose and engagement principles are also resources. Core team members share such artifacts purposively, through web sites to enable others to view the development of the initiative, at City Council meetings, with county senior managers, at engagement events. The artifacts are critical tools that expand opportunities for coproduction. For example, at a City Council meeting, city staff thought it was important to post some large drawings created to capture what people thought were the communities’ “must see and dos.” In the discussion that resulted, the elected officials welcomed the Discover Together staff into a key city priority for the year - how to best redevelop public space including a library and historical society. Members of the Core Team had prepared for the discussion by talking with people who had formal authority such as the Mayor, City Manager, and Librarian but the presence of the art on the walls helped to signal that this was not business as usual. As one city council member said, “We are so excited to be able to hear from community members themselves.” By inviting the Discover Together core team into the ongoing public space planning, the elected officials explicitly decided to engage more deeply.
the community in determining how the shape and services mix for the new building would be determined.

While the tangible artifacts are powerful resources for engaging others, they also are important tools within the Core Team itself. Members draw upon them while talking about key learning such as the interactions between ethnicity and age. They rely upon them when shaping evaluation activities, referencing the two-page summary document when designing the evaluation to assess whether or not activities are aligned with the articulated purpose and principles. When planning refinements to future engagements, they pull out the colorful templates developed at the retreat and embed the creative ideas into more formal work plans.

Third, more formal reports are often used to enable others to come to conclusions and commit to the investment of additional resources. For example, staff and community members in the Discover Together coproduction project first began by collecting data throughout the community. That information, along with other analysis of the county’s program participation and U.S. Census data over time, was assembled into a formal report. It was shared with county managers, city council members, and the elected county board to describe the engagement. Project leaders used this artifact as an excuse to make presentations to these various groups to increase their awareness of the project and build its legitimacy, responding to questions and inviting the stakeholders who possess formal authority to participate in the engagement activities.

This initial analysis illustrates the work that can be done when material artifacts are recognized and used as resources. Within a strategic action field, these things can become important tools in coproduction. They allow abstract ideas to be grounded and allow people to
understand where they are in the development of a project, plan shared activities, and assess progress. They also potentially bridge across fields by making activities transparent to community members and build legitimacy for future activities. Because they are tangible, material artifacts can create visibility for coproduction activities that, in turn, garner more investment or broadened scope of work.

Yet, as suggested by the theoretical framework, the significance of artifacts is not exogenous to the social system. They rely upon socially skillful actors to bring the into use (Feldman and Quick 2009; Sandfort and Quick 2017). In doing so, these actors try to create agreement with others about viable ways forward. In the Discover Together case, the use of the conceptual models and Art of Hosting frameworks helped induce cooperation in the collective action necessary for coproduction. Socially skilled actors also use these tools to frame others’ understanding of experiences. In this case of engagement, the colorful newsletters summarize what occurred and major themes about the community needs that were learned. When used in discussion with county managers, they have enabled new programming and more honed investment of existing funds to better meet the needs of citizens. Social skilled actors also use material objects to frame action options and set an agenda for action by appealing to others’ interests (Kingdon 1984). As was illustrated in the City Council deliberations about development of public space, they broadened consideration of the project and enable a coproduction approach to be embraced because of the suggestion, enabled by the colorful material objects hung on the wall, that this process would solve the need for broad community engagement.
The strategic action field theory also stresses that material objects are brought into use when actors shape or recognize them consistent with what is already understood to be legitimate in that social setting (Fligstein and McAdam 2012). In the Discover Together case, the training workshop they attended early in the project helped county managers understand the larger body of knowledge underpinning the conceptual models. The look and feel of documents reflects the norms of the community; the two-page project overview uses colors consistent with the high school and images of community gathering places; the art captured local knowledge about current conditions. To operate as boundary objects, these tools must be grounded in community conditions and then used to translate it for different audiences.

**Concluding Thoughts**

This paper is a first attempt to connect the larger literature on policy and program implementation with the emerging scholarship on coproduction. At base, it is an effort to broaden the dialogue and illustrate another way of conceptualizing how public service systems interactions with citizens is part of the larger policy process. In addition to summarizing the strategic action field framework, we have shared some preliminary analysis of an interesting case of citizen engagement in coproduction in a high poverty neighborhood by a county government.

In our analysis, we wanted to focus attention upon the use of material objects and provide a theoretical account of the coproduction work they can enable. When actors knowledgeable about the particular context draw strategically upon these resources, they can become potent tools of change. Hopefully, this analysis highlights the practical significance of
material objects. The help build collective understanding by making the processes and products of coproduction more tangible, more objective, more able to inspire focused discussions and enable collective action.

References


A systematic review of red tape as a barrier for co-producing public services (Van Dijck and Steen)

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Introduction

Collaboration has manifested itself as an important vehicle for public sector innovation over the past decade. The prospect of cost reductions, enhanced service quality and greater user satisfaction makes a strong case for more research into collaborative innovation from a societal as well as an academic point of view (Löffler, 2009). Therefore collaborating for innovation, for example through co-production, is booming. Governments increasingly collaborate with external stakeholders such as businesses, non-profit organizations, interest groups and citizens (OECD, 2011). This specific form of collaboration can provide the government with a wide area of new and different ideas on the generation of policies and services, and their implementation. As a result co-production can be a true driver for innovation (Head 2008; Sørensen & Torfing, 2011).

Because the field is still developing, few studies have been conducted with regard to conditions for successful co-production. Therefore we look at the collaborative innovation literature and the public sector innovation literature for drivers and barriers in this article (Windrum & Koch, 2008; Voorberg et al, 2013). It is notable how authors use different categorizations and focus on different aspects. Hartley (2005) divides driver and barriers in top-down and bottom-up conditions, while Greer and Lei (2012) discuss organizational structural, communication related, individual level, technology related, and external forces that affect collaborative innovation.
Sørensen and Torfing (2011) in turn distinguish between cultural, institutional, inter-organizational, organizational and identity related drivers and barriers.

In short there is no real consensus on the relevant organizational conditions for collaborative innovation nor for co-production specifically. A variable that is rarely considered, is red tape, defined as ‘burdensome rules and procedures that negatively affect performance’ (cf. Bozeman, 1993). This is remarkable since red tape is known to have a negative impact on both innovation and collaboration (Feeney, 2012; Ljungholm, 2014). Insights into the dynamics of these relationships are fragmented however. Still, in the literature we find some potential explanations of how red tape might affect public service organisations’ potential for collaborative innovation and for setting up new co-production initiatives. Studies show how red tape can increase practical thresholds to engage in collaboration with external stakeholders and introduce innovations, or how it can create a risk-aversive environment (Albury, 2005; Sørensen & Torfing, 2011). Red tape is found to originate not only from inside but also from outside the organization; for example as it may result from external control and interaction with external stakeholders (Bozeman, 2000). As a result, red tape can have a discouraging effect on public professionals’ motivation to invest in co-production with citizens and other external stakeholders if such collaboration is feared to come with extra administrative burdens (cf. Florin & Dixon, 2004; van Eijk & Steen, 2013).

This paper presents a systematic literature review linking red tape to innovation, collaboration, and co-production. The main research question is ‘How does red tape affect co-production, and in which ways?’. To answer this question the literature review takes into account the dimensions of red tape (personnel/budget/procurement...) and their effects on innovation, collaboration, and co-production.

Methodology for systematic review

We used four search strategies, adapted from Cooper (2016), to identify studies eligible for the systematic review. First the Web of Science database (http://webofknowledge.com) was searched to include the most influential papers on the relevant topics. The search terms used were: [(red tape) OR (administrative burden) OR (bureaucracy) OR (regulation*)] (AND) [(co-production) OR (coproduction) OR (cocreation) OR (co-creation) OR (stakeholder management) OR (social innovation) OR (open innovation) OR (innovation public sector) OR (collaborative
innovation) OR (innovation govern*]). Articles were eligible if they were published from 2007 onwards. This search was last conducted on the 9th of March 2017 and yielded 2705 results. The articles found were filtered first based on title and then on abstract. Those that remained were scanned on content as well. From the 2705 articles found, only 32 turned out to be relevant for this review. This can be explained by the fact that only 153 of the articles were situated in public administration research because of the broadness of the terms used for the search.

Secondly, publications in ten top public administration journals were examined. Since red tape is a common concept in the field, different terms for the concept were not used in this search. The search terms were simplified to (red tape) AND innovation. This search was conducted on the 14th of March 2017. In this search the recentness of articles was not included as a criterion, since all searches generated under one hundred results and the aim of this particular search strategy was to include all key articles on the topic, regardless of when they were published. This way many influential works by, for example the one by Bozeman, Pandey and others published before 2007 got to be included. In Policy Sciences and Governance no additional relevant articles were found of the 12 and 23 results the searches respectively generated. The same was true for the International Public Management Journal, the Public Management Review, Regulation and Governance and the Journal of European Public Policy. The search in Public Administration supplemented 2 articles among the 78 hits resulting from our search. The Journal of Public Administration Research and the Public Administration Review contributed the most relevant additions to the Web of Science search, respectively adding 9 articles out of 60 search results and 4 out of 92. Lastly our search in the American Review of Public Administration added 2 extra articles out of 29 hits. In total this supplemented 17 articles, bringing the number of total eligible articles to 49.

Next the KU Leuven university database was searched for additional articles and books. This was done to include a broader range of studies. The search was conducted on the 17th of March 2017. Using the same terms as we used for searching the Web of Science data base, over 100 000 results appeared, so the terms were simplified to [(co-production) OR (innovation) AND (red tape)]. Only articles published from 2007 onward were included. This still generated over 20 000 hits so the search was further narrowed based on the topic ‘public sector’. 500 results remained and were filtered first on title, then on abstract and ultimately on content. This reached generated 8 more articles eligible for the literature review, bringing the total to 57.
Lastly we scanned the references of the articles already included in the literature review. This way we identified multiple highly influential studies and books on the effects of red tape. This resulted in 16 more articles or books for the literature review, bringing the total to 73.

In using search engines, the attempt was to include as many different terms for the concepts we wanted to research as possible. However, co-production especially might have synonyms we did not think of, excluding relevant articles from our review. This is a limitation of the search. As a partial remedy for this problem the references were scanned for every article on co-production we included in order to broaden the terminology we used for the search as much as possible. This was necessary since the conceptualization of (forms of) collaborative innovation does not enjoy academic consensus yet. In total we scanned for 10 different terms when researching co-production for example.

With regard to inclusion criteria, to be included in our systematic review studies had to be published after 2007. Exceptions were made for much cited key articles that were frequently mentioned (over three times) in the references of other included studies. Only studies published in English were included. There were no inclusion criteria concerning the type of study, the study-design, the participants or the region where the study was conducted. Crucial however, was that every included study or book mentioned effects of red tape on the workings of an organization in general or on (collaborative) innovation in particular. In total there were 48 empirical studies, 3 literature studies and 21 theoretical works in the literature review. 67 of them were articles and 6 of them were books.

**Review method and coding**

The included articles were scanned for the concepts ‘red tape’, ‘co-production’ and all terms linked to them that we identified in the previous step. This resulted in 288 text fragments for analysis. The fragments were initially coded using four colour-code labels: one for the dimension of red tape (personnel/budget…), one for the type or form of red tape (rules/procedures/…), one for the extent of red tape, and one for the described effects of red tape. The text fragments dealing with these subjects could be part of the introduction, literature study, results or conclusion of the included articles.

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12 co-production, coproduction, cocreation, co-creation, stakeholder management, social innovation, open innovation, innovation public sector, collaborative innovation, innovation government
In coding the text fragments, it soon turned out that the most common way of categorising red tape in articles is by dimension. Authors rarely distinguished in types or forms of red tape when linking the concept to (collaborative) innovation. Additionally the label ‘extent’ resulted in little to no useful information for the purpose of this article, resulting in the labels ‘type/form’ and ‘extent’ being dropped. After the first round of coding, highlighted portions from all text fragments were grouped in a table or scheme per label. The doubles in the table for the label ‘red tape effects’ were deleted and every effect was distributed into one of four categories we determined based on the data at hand. Among the effects of red tape for example we distinguished several text fragments related to delays for instance. The final table is included in the appendix.

Because of the use of open coding we identified more than just dimensions of red tape or red tape effects. There were multiple text fragments that pointed out additional information that could indirectly benefit our analysis. These text fragments mostly included nuances that were taken into account in some but not every study we reviewed. An example of such a nuance is the difference between objective red tape and perceived red tape. Another example were text fragments dealing with mediating variables.

**The different types of red tape**

As Brewer and Walker (2010) pointed out, red tape is a multidimensional construct. Noting how different types of red tape affect different aspects of organizational performance in different ways, they called for a finer-grained analysis on the effects of red tape. Unwrapping the general notion of the concept, the literature shows different categorizations. A general division is the one between internal and external red tape, while red tape can also be divided into five different dimensions that can be distinguished based on the field of the burdensome rules and procedures (Feeney, 2012).

**Internal versus external red tape**

Both internal and external red tape are about bureaucratic procedures, regulations and routines that make functioning more difficult. The difference between the two is who they make it more difficult for. Essentially this differentiation is hence based on the red tape effects. Internal red tape negatively affects the internal operations of a public agency and is hence burdensome for the agency itself, while external red tape burdens citizens and other stakeholders in their dealings with the agency. External red tape is experienced by citizens or
stakeholders (non-profit organizations, businesses...) when they have to comply with legal mandates for example (Walker & Brewer, 2008). Of the 26 books and articles mentioning a multi-dimensional red tape construct, 4 mentioned internal red tape and 5 mentioned external red tape.

Apart from different actors being affected, internal and external red tape also have different origins. Bozeman states that internal red tape can originate from five categories of dysfunctional rules: inadequate comprehension rules, self-aggrandizement and illegitimate functions rules, negative sum compromise rules, overcontrol rules and negative sum process rules. On top of that he identifies eight ways ‘good rules can go bad’, which also result in internal red tape (Bozeman, 1993). These eight ways are: rule drift, rule entropy, change in implementation, change in the functional object, change in the rule's efficacy, rule strain, accretion and misapplication. External red tape mostly originates outside the organization in an attempt to control large numbers of diverse stakeholders (Torenvlied & Akkerman, 2012).

As Bozeman (1993) stated, red tape often originates from ‘good rules that go bad’. It is important to remember that some rules stay functional and that not every rule or procedure should be classified as red tape. On the contrary, over the last decade the concept of rule effectiveness or ‘green tape’ is gaining importance in public administration research. DeHart-Davis (2009) found that “the probability of rule effectiveness depends on the combined presence of (1) written requirements, (2) with valid means-ends relationships, which (3) employ optimal control, (4) are consistently applied, and that have (5) purposes understood by stakeholders.”

**Typology of red tape by field**

While 30 of the articles in our systematic review handled red tape as a one-dimensional construct, 26 articles distinguished multiple areas or dimensions of red tape. The most common red tape dimension is personnel or human resource red tape. It was separately mentioned in 20 works or 77% of the books and articles that considered red tape to be multidimensional. Procurement red tape was mentioned in 7 articles (30%). Budget red tape and communication red tape were mentioned in 4 (15%), and information red tape in 6 (23%)

13 The 17 other included articles or books did not specify whether red tape was viewed one-dimensional or multi-dimensional. Most of these works did not have red tape as their main topic.
articles. These five most commonly used dimensions were originally identified by Pandey, Coursey and Moynihan (2007). Information red tape and communication red tape will be discussed together in this paper since they were researched together in all four papers on communication red tape in the literature review. Since definitions of red tape dimensions are uncommon to non-existent in the literature, we provided a description for each dimension, based on the items used to measure them. Next we searched the literature for the origin of that dimension of red tape. Lastly we collected all effects of that particular red tape dimension described across the 73 articles and books included in the review.

**Budgetary red tape**

Budgetary red tape are rules and procedures that limit a manager’s ability to reprogram funds in accordance with the agency’s mission. They also limit a manager’s ability to deal with unexpected program/project cost overruns (Chen & Williams, 2007). This area of red tape often stems from mechanisms that turn good rules dysfunctional. These mechanisms include rule drift, rule entropy\(^{14}\) or a change in the rule’s efficacy. This last change occurs when the circumstances which mitigate the rule’s usefulness are altered (Bozeman, 1993). A fictional example where there is a change in efficacy, is when a rule states that all reprogramming of funds above a certain amount of money need special approval. Inflation renders those kind of budget rules more burdensome each decade.

Scott and Pandey (2006) found that perceptions of budgetary red tape are significantly negatively related to public service motivation (PSM) (as cited in Bozeman & Feeney, 2011). Pandey and Garnett (2006) also discovered that budgetary red tape can increase the interpersonal communication performance since it requires greater interaction among participants in the process in the form of clearances, meetings and public hearings.

**Personnel red tape**

Personnel red tape are the rules and procedures limiting a manager’s ability to reward employees in a flexible way, to have authority over personnel actions and to execute personnel measures in a timely fashion. Rewarding employees in a flexible way entails promoting them based on performance or raising their pay. This aspect of personnel red tape is about rules and payment structures. Having authority over personnel actions is about hiring employees and dismissing them when they perform poorly. The last aspect concerns the approval time for

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\(^{14}\) Rule entropy is a special case of rule drift; it occurs as rules get passed from one organization to the next and one person to the next.
personnel actions and is hence mostly about delays (Coursey & Rainey, 1990; Moon & Bretschneider, 2002).

Personnel red tape mostly originates from the desire to prevent favouritism and limit political interference in rewarding, promoting, hiring or civil servants. It also results from unclear public goals with regard to performance and the absence of market tests (Baldwin, 1990). Government managers report that personnel constraints prevent them from acting efficiently and effectively. It is associated with bureaucratic control, delays, extensive paperwork and a great number of decision makers (Chen, 2012; Li & Feeney, 2014). It is mentioned by Baldwin and many other authors that the lack of flexibility and autonomy perceived by the managers as a result of personnel red tape leads to declined motivation (Bozeman & Feeney, 2011; Op de Beeck, Wynen & Hondeghem, 2016).

Yet findings by Brewer and Walker (2010) contradict this since they found that rewarding managers in the public sector with higher pay can be counterproductive. They point out evidence that ‘public employees are less motivated by extrinsic rewards such as pay increases and more motivated by intrinsic rewards such as the satisfaction derived from helping others and making a difference in society’ (Brewer & Walker, p. 246, 2010). Still regardless of the best ways to incentivize civil servants, personnel red tape leads to high levels of frustration and vexation, even more so in the public sector than the non-profit sector (Chen, 2012). Additionally personnel red tape is negatively related to a local government organization’s ability to adopt to innovations (Li & Feeney, 2014).

**Procurement red tape**

Procurement red tape are rules and procedures that make it unnecessarily more difficult for managers to purchase goods and services. They are standard procedures that make procurement more based on the vendor’s ability to comply with rules, than on the quality of goods and services. When the rules governing procurement make it hard to expedite the purchase of goods and services for a critical projects, the procurement red tape in an organization is high (Pandey & Garnett, 2006). Kelman described how excessive rules in procurement have two main origins. On one hand there are procurement practices in place to prevent individuals within organizations from having to “rediscover the virtues of competition” (p. 608). And on the other hand procurement rules reduce potential purchasing abuses by limiting the government officials’ ability to engage in procurement practices that might be corrupt or unfair (as cited in Stazyk, Pandey & Wright, 2011, p. 608). Most procurement red tape are textbook examples from the ‘good rules gone bad’ mechanism described by Bozeman (1992).
As Stazyk and others (2011) point out, the focus on process over results leads to highly complex and inefficient procurement systems that can cause major delays. This is recently confirmed by Tõnurist, Kattel and Lember (2017) as they describe how procurement red tape hampers innovation by creating a loss of momentum at crucial times. They voice an additional need for more flexible structures. Grandia, Steijn and Kuipers (2015) were similarly assuming procurement red tape would make civil servants less committed to change, but contrary to their hypothesis they discovered that procurement red tape is “simply a factor that all procurers have to deal with in their work, but that does not specifically decrease their commitment to change or sustainable procurement behaviour” (p. 254). It also has no significant effect on affective organizational commitment (Stazyk et al., 2011). Scott and Pandey do point out however, that procurement red tape is linked to a decline in PSM (2005).

**Communication and information red tape**

Information red tape or information systems red tape, are rules and procedural requirements for the information system in an organization, that make it more difficult for managers to obtain relevant information and do so in a timely fashion (Bozeman & Feeney, 2011). Communication red tape are the rules and procedures that hamper or unnecessarily restrict the communication of information. This can concern communication within a government organization, among government organizations or between a government organization and the outside world (e.g. through the press) (Chen & Williams, 2007). Both communication red tape and information red tape have barely been researched, contrary to the areas of red tape discussed in previous paragraphs. Neither term produces any records in the Web of Science data base. Searching the Google Scholar data base they respectively generate 45 and 60 results. Their origin has not been specifically researched so far. This is a gap in the literature that has yet to be filled. Given that they are both examples of internal red tape however, the assumption can be made that the general internal red tape origins apply (Bozeman, 1993).

Even though there is few specific research on communication or information red tape, scholars did study their effects. Pandey and Garnett (2006) found that information and communication red tape have negative influences on internal communication performance. Additionally Ljungholm (2014) notes that information red tape hampers managers from getting effective and useable information necessary for decision making. It is a logical assumption that this has a negative effect on performance, collaboration and innovation.
Measurement of red tape

In the studies we reviewed for this paper, red tape is most often measure quantitatively by using Likert-type scales in surveys. Examples of studies using surveys to assess levels of red tape are the works of Brewer, Walker and Bozeman (2012), and those of Pandey and Walker (2005). The questions they use were adapted and used by other academics as well. Measures for all dimensions except budgetary red tape show acceptable levels of internal consistency (Pandey & Garnett, 2006). Another widely used way of measuring red tape is a one-item measure called the general red tape (GRT) scale that asks respondent to indicate the overall level of red tape in their organization by using a 10-point Likert-type scale (Bozeman & Feeney, 2011). Even though the previously mentioned measures are still widely used, some academics develop new scales or formulate new items for a specific purpose. Van Loon, Leisink, Knies & Brewer recently developed and validated a new measure of red tape adding “a job-centered approach that measures red tape as experienced by employees in their jobs rather than more generally in the organization” (Van Loon, Leisink, Knies & Brewer, 2016, p. 1). Red tape is rarely measure qualitatively, Pandey, Coursey & Moynihan (2007) were the first ones to do so only ten years ago in a multi-method study. The literature study contained two more mixed method studies conducted since then. Out of the 46 empirical studies included in our review, two were experimental and 41 contained quantitative research only.

In studying red tape, there are two ways in which the concept can be approached. First of all there is the objective amount of red tape in an organization. This is a concept one can measure by observing objective indicators such as processing time and the number of approvals needed to perform key managerial tasks. These are only two elements out of a number of measures (Pandey & Scott, 2002). Yet this literature review showed that the majority of articles measure perceived red tape instead. The importance of that perception should not be underestimated since Brewer and others point out that it is the perception of red tape, rather than red tape itself that forms the relevant barrier to public sector innovation (Brewer et al., 2012). Frustration, a decline in motivation, and many other psychological red tape effects we will discuss later, results from red tape perception rather than from the objective amount of red tape (Li & Feeney, 2014). As Kaufman noted in 1977, "One person's red tape may be another’s treasured safeguard” and may thus affect different people in different ways (as cited in Pandey & Kingsley, 2000). In our literature review there were 15 articles and books that only considered the objective amount of red tape, 38 works that dealt with red tape perceptions and 2 articles that considered both. It is notable that over half of the works considering objective red tape date back to before 2007 and half of these are (co)-authored by Bozeman, as a leading author in red tape research.
The different effects of red tape

There are many ways in which red tape affects organizations. Two key articles researching these effects are ‘The impact of red tape on governmental performance’ by Brewer and Walker (2010) and ‘Organizational effectiveness and bureaucratic red tape: a multimethod study’ by Pandey, Coursey and Moynihan (2007). Yet these effects have never been categorized before in the literature to our knowledge. For the purpose of this review, 271 text fragments selected from 73 articles and books were examined. All these fragments linked red tape to innovation, collaboration or co-production. Searching those fragments, we distinguished 57 different kinds of effects. We grouped these in categories, classifying the different (potential) effects red tape can have into: effects related to change, psychological effects, operational effects and effects on collaboration.

Psychological effects

The largest and most researched red tape effects are its ‘adverse psychological consequences on employees’ as Grandia, Steijn and Kuipers (2015) describe them. These effects include feelings of normlessness (Bozeman & Scott, 1996), a decrease in employee satisfaction (Li & Feeney, 2014) and a decline in job involvement (Pandey & Scott, 2002), lower public service motivation (Pandey & Bretschneider, 1997) and less employee motivation in general (Welch & Pandey, 2007), plus increased work alienation (DeHart-Davis & Pandey, 2005). This can result in a lack of individual motivation to seek or provide needed information to engage in collaborative innovation such as co-production for example (Pandey & Bretschneider, 1997).

Other effects red tape can have on employees include more stress (Turaga & Bozeman, 2005), increased frustration (Pandey & Garnett, 2006), decreased creativity (Welch & Pandey, 2007) and augmented vexation (Chen, 2012). These effects in turn lead to an increase of turnover intention (Welch & Pandey, 2007) and a lower organizational commitment (Li & Feeney, 2014). On top of that perceptions of red tape can be more important than merit at times when an administrator evaluates the desirability of a policy (Li & Feeney, 2014). When red tape burdens civil servants in executing their day-to-day assignments, they can also resort to work-place blame for problems they experience, instead of feeling responsible themselves for delivering good results (DeHart-Davis & Pandey, 2005).

Still not all authors agree that red tape is accountable for the negative psychological effects described above. Feeney and DeHart-Davis (2009) found that red tape does not necessarily decrease creativity at work and, as explained in the section on personnel red tape, there is discussing on to what degree red tape impacts motivation given the fact that public servants are assumed to be more intrinsically motivated that regular employees (Brewer & Walker, 2010b).
Operational effects

The second largest group of studied red tape effects are of a more operational nature. Research shows that red tape negatively affects organizational efficiency, effectiveness and performance (Ljungholm, 2014). On top of that red tape can hamper goal clarity and goal attainment (Pandey & Garnett, 2006). This can also cause problems indirectly because of red tape’s negative effects on communication since red tape restricts the number and capacity of communication channels available for transmitting information (DeHart-Davis & Pandey, 2005; Quratulain & Khan, 2015). Furthermore studies show how it also keeps managers from getting effective and usable information necessary for decision making (Chen, 2012). Apart from the clear constrains red tape puts on communication performance, the concept is also responsible for extensive paperwork and many authors report severe delays as a common effect (Feeney & DeHart-Davis, 2009; Ljungholm, 2014; Tõnurist, Kattel & Lember, 2017). Red tape also accounts for a general rigidness in an organization that make it more difficult to reward good employees, remove lazy workers, and promote well performing subordinates (Chen, 2012; Welch & Pandey, 2007).

Effects related to change

A first cluster of the red tape effects are those effects related to change. Research has shown that red tape can be an incentive to change or innovate as well as a barrier in attempting to do so (Van de Vrande et al, 2009; Ljungholm, 2014). With regard to the implementation of IT innovations especially, the effects of red tape are mixed (Pandey & Bretschneider, 1997; Moon and Bretschneider, 2002). High levels of red tape can create pressure to seek alternative solutions for red tape problems such as the use of new technology. In those cases red tape can spur on IT innovation (Moon & Bretschneider, 2002). The academic consensus however is that red tape mostly impedes an organization’s capability to adapt (Vrande et al, 2009), disrupts the adoption of innovations (Ljungholm, 2014) and limits the potential for novel problem solutions (Li & Feeney, 2014). The loss of momentum in innovative projects (Bozeman & Scott, 1996) and the general risk-averseness in organizations as a result of red tape (Bozeman & Kingsley 1998) can be detrimental for an organization’s willingness and ability to innovate. These effects have been specifically confirmed for local governments (Ljungholm, 2014).

Effects on collaboration

The smallest group of effects we derived from the literature are the effects red tape has on projects and collaborations. The focus in this section is on effects specifically linked to collaborating with others here. An issue red tape can cause in collaborative projects are
problems with venturing and getting crucial funding in time (Pandey & Garnett, 2006; Bovaird & Löffler, 2012). A strict adherence to budgets and planning horizons can make the collaboration run less smoothly as well (Albury, 2005; Verschuere, Brandsen, & Pestoff 2012). Government organizations experience less flexibility in this area than external partners which can cause friction. Not just procurement red tape, but also red tape in general is found to impede public managers’ interactions with the organizations’ stakeholders and external actors (Feeney & DeHart-Davis, 2009). The reputation of red tape in government organizations can also cause problems when attempting to persuade externals to be involved as well (Feeney & DeHart-Davis, 2009). Another effect is that red tape in communication can reduce connectivity and integration, which negatively impacts collaborative innovation (Tuurnas, 2015; Gieske, van Buuren, & Bekkers, 2016). A last effect is that burdensome rules and procedures can make government organizations too inflexible to change partners when the collaboration does not work out. They can even prevent an organization from being able to end a program prematurely, regardless of the organization’s need to do so (Feeney & DeHart-Davis, 2009).

**Discussion: linking red tape dimensions to red tape effects**

In this final stage of the literature review we attempt to link the different dimensions of red tape distinguished by Pandey, Coursey and Moynihan (2007), to the different categories of red tape effects we created in this article. In the figure below is displayed how the dimensions and categories are related according to the literature. To interpret the figure we start with the dimensions of red tape. Taking the amount of articles we came across linking a certain dimension to a category of red tape effects, there is a thin line drawn between links that occurred in 0 to 30% of the articles discussing that red tape dimension. Links that occurred in 30% to 100% of the articles of a certain red tape dimension are drawn in bold.
Studying the figure, a first remark is that all dimensions of red tape are strongly associated with the operational effects of red tape such as delays, paperwork and communication issues. Another group of effects associated with many of the red tape dimensions are the psychological effects. Personnel red tape especially, is strongly associated with negative psychological effects caused by red tape according to the literature. Out of the 69 text fragments that specifically dealt with effects of personnel red tape, 28 mentioned psychological effects such as declined motivation and more frustration. With regard to budgetary red tape and procurement red tape there was only one article linking them to psychological effects as Scott and Pandey (2006) discovered that they both cause declines in PSM.

In the literature reviewed there were only few studies linking specific red tape dimensions to effects on change. Bozeman and Scott (1996) found that procurement rules can cause a loss in momentum halting innovation, although Grandia, Steijn and Kuipers (2015) found that procurement red tape does not affect the commitment to change. The second red tape dimension linked to change is personnel red tape. Ljungholm (2014) discovered that this red tape dimension is negatively related to local governments’ ability to innovate.

The last category to discuss are the effects red tape has on collaboration. Although these kind of effects are touched upon in the literature, there is hardly ever mention of a specific red tape dimension. Yet if we combine the findings by Ljungholm (2014) that red tape in communication and information systems hampers managers from getting effective and useable information necessary for decision making on the one hand, with the knowledge from research on co-
production that communication and information are key for collaboration on the other hand (Tuurnas, 2015); we discover a link.

Considering the division between internal and external red tape, it could be argued that external red tape would result in red tape effects on collaboration especially since it affects stakeholders in their dealings with the government. Internal red tape, in contrast, can be linked to psychological effects since it is the red tape experienced within the government (Walker & Brewer, 2008).

Recognizing the limitations of this literature review, we acknowledge that the figure above is merely a start. Because few studies have been conducted on the effects of specific red tape dimensions and red tape effects have not been categorized before, there is still information missing that is needed to complete the scheme. In other words, the fact that some dimensions and effects are not connected in the figure does not mean that there is no relationship, merely that we did not come across evidence of such a link in the literature. Similarly, there is no guarantee that the thin lines represent less common links. What we can assume however, is that the lines in bold represent real links since they were confirmed and reconfirmed in multiple studies.

**Conclusion**

A first insight to take away from this systematic literature review is the importance of splitting up the concept of red tape. As the articles by Sanjay, Coursey and Moynihan (2007) and Brewer and Walker (2010) showed, red tape is no one-dimensional concept even though it was treated as such in 54% of the studies in our review. This study confirmed that different red tape dimensions do affect organizations in different ways. Red tape in communications and information may be an incentive for organizations to pursue IT innovations, but based on the literature we can assume that such an effect is far less likely as far as personnel red is concerned. When red tape is treated as a one-dimensional construct the complexity of the dynamics among red tape dimensions remains invisible. This can lead to false assumptions when the effects of red tape on a certain parameter (e.g. innovation) in one organization are assumed to be similar in another organization. It should be taken into account that two organizations that score similarly on a one-item general red tape measure do not necessarily score similarly on the presence of individual red tape dimensions. Apart from the red tape dimensions that are taken into account, it is also important to keep in mind whether the objective or perceived amount of red tape is being measured. They could have different effects, assuming perceived red tape rather than objective red tape is responsible for psychological consequences. Additionally objective red tape would likely result in delays and other operational effects, perhaps more so than perceived red tape.
Yet even when considering multiple dimensions to red tape, it is currently still unclear which dimensions that should be. Of all articles that mentioned different red tape dimensions, only 19% distinguished between internal and external red tape, while only 12% mentioned all five red tape dimensions (personnel, procurement, budget, communication, information) as distinguished by Pandey, Coursey and Moynihan (2007). Other red tape dimensions described in the literature are formal, informal, administrative, pass-through and inter-organizational red tape. Yet these are not all. In short there is no consensus on which red tape dimensions should be distinguished and what terms should be used to address them. On top of that perhaps there are still red tape dimensions not yet researched who should have their own category, supplementing our contribution. Little is known about red tape in service delivery or red tape in planning for example.

A second conclusion from this systematic review is that red tape research often has a normative bias. It should not be automatically assumed that the presence of red tape results in negative effects. Yet only 32% of the works in the systematic review considered red tape having anything other than negative effects in their summary of the relevant literature or in their hypothesis. This also lead some authors to interpret non-significant results as a failure of the measurement instead of considering that there might in fact truly be no negative red tape effect. As the research by Grandia, Steijn and Kuipers (2015) showed, red tape is often a factor that employees are accustomed to and have learned to consider and work around. Moreover, many results in red tape research are nuanced. The article ‘Does the perception of red tape constrain IT innovativeness in organizations? Unexpected results from a simultaneous equation model and implications.’ by Moon and Bretschneiber (2002) was cited 175 times according to google scholar. Remarkably enough our literature review showed that this article is used to point out that red tape can spur on innovation in eight studies in our review, while also being used to point out precisely the opposite by four other studies.

Thirdly we contributed to the existing literature by tracking down the different known red tape effects and categorizing these into psychological effects, operational effects, effects on change and effects on collaboration. This categorization is important because it provides a structure necessary to zoom in on causal paths, for example relating red tape and co-production. The division we made is backed up by the findings of our literature review, linking all effects we detected in the literature to one of four groups. Yet this does not mean that other divisions cannot be made or that additional categories are not appropriate. Therefore the nature of red tape effects would need to be studied further. In that respect a greater amount of mixed-method studies or qualitative red tape studies would be beneficial. Now red tape studies are often operationalized purely quantitatively. The researchers start with a hypothesis and use Likert-scale items to measure both red tape and the assumed effects it will have. As a result any effects that were not anticipated are often missed as a results of those variables not being part of the study. Even when the red tape effect was included, the use of items in a survey reduces the complexity of the reality, limiting what we learn. Therefore further research could attempt
to use a more open format when questioning about red tape, with a broader view on red tape effects.

A fourth and final conclusion to be drawn is that there is much still to be discovered about the effects of red tape on (collaborative) innovation and co-production. Further research into specific effects the different dimensions of red tape have is required to get a more complete overview of how red tape affects and does not affect collaborative innovation and co-production. Here we offered a start with considering the effects on change (linked to innovation) and the effect on collaboration that were offered in a previous section. There it was notable how especially communication and information red tape were linked to these effects. These specific effects should be tested in future research in order to determine whether a focus on reducing these specific red tape dimensions can be beneficial for co-production. An increased understanding of the red tape effects on change and collaboration could also improve an organization’s ability to cope with these effects and work their way around them.

Finally, as described above this paper offers many suggestion for further research. First of all a complete overview of all red tape dimensions an organization faces would be very beneficial for a better interpretation of specific red tape effects. Furthermore research of a more open nature into red tape effects, both positive and negative, could foster a better image of the differences in nature between such effects and the way these effects can be linked to red tape dimensions. And thirdly with regards to the red tape effects on co-production, a specific focus on red tape collaboration effects and red tape change effects could foster the understanding of the complex dynamics at play in cases of co-production.

References


**Appendix: clusters of red tape effects by type of effect**

<table>
<thead>
<tr>
<th>Red tape effects</th>
<th>Red tape dimension</th>
<th>Category of effects</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome</td>
<td>Change</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------</td>
<td>------------------------------------</td>
<td></td>
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<tr>
<td>Negatively related to local government innovation</td>
<td>Personnel</td>
<td>Change</td>
<td></td>
</tr>
<tr>
<td>Interest in new technology</td>
<td>Change</td>
<td>DeHart-Davis &amp; Pandey, 2005</td>
<td></td>
</tr>
<tr>
<td>Disrupt adoption of innovation</td>
<td>Change</td>
<td>Ljungholm, 2014</td>
<td></td>
</tr>
<tr>
<td>Create loss of momentum</td>
<td>Change</td>
<td>Bozeman &amp; Scott, 1996</td>
<td></td>
</tr>
<tr>
<td>Cause risk-averseness</td>
<td>Change</td>
<td>Moon &amp; Bretschneider, 2012</td>
<td></td>
</tr>
<tr>
<td>Limit potential for developing new problem solutions</td>
<td>Change</td>
<td>Li &amp; Feeney, 2014</td>
<td></td>
</tr>
<tr>
<td>Feelings of normlessness</td>
<td>Psychological</td>
<td>Bozeman &amp; Scott, 1996</td>
<td></td>
</tr>
<tr>
<td>Lower organizational commitment</td>
<td>Psychological</td>
<td>Li &amp; Feeney, 2014</td>
<td></td>
</tr>
<tr>
<td>Burden over merit in policy decisions</td>
<td>Psychological</td>
<td>Li &amp; Feeney, 2014</td>
<td></td>
</tr>
<tr>
<td>Lower satisfaction with job</td>
<td>Psychological</td>
<td>Li &amp; Feeney, 2014</td>
<td></td>
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<tr>
<td>Reduce motivation</td>
<td>Psychological</td>
<td>Moon &amp; Bretschneider, 2002</td>
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<td>Undercuts PSM</td>
<td>Psychological</td>
<td>Bozeman &amp; Feeney, 2011</td>
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<tr>
<td>Lower job involvement</td>
<td>Psychological</td>
<td>Pandey &amp; Scott, 2002</td>
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<tr>
<td>Adverse psychological consequences on employees</td>
<td>Psychological</td>
<td>Grandia, Steijn &amp; Kuipers, 2015</td>
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<tr>
<td>Decrease in creativity</td>
<td>Psychological</td>
<td>Welch &amp; Pandey, 2007</td>
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<td>No effect creativity</td>
<td>Psychological</td>
<td>Bozeman &amp; Kingsley 1998</td>
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<tr>
<td>Turnover intention</td>
<td>Personnel</td>
<td>Psychological</td>
<td>Welch &amp; Pandey, 2007</td>
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<tr>
<td>Increase stress</td>
<td>Personnel</td>
<td>Psychological</td>
<td>Turaga &amp; Bozeman, 2005</td>
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<tr>
<td>Increase frustration</td>
<td>Personnel</td>
<td>Psychological</td>
<td>Pandey &amp; Garnett, 2006</td>
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<tr>
<td>More vexation</td>
<td>Personnel</td>
<td>Psychological</td>
<td>Walker &amp; Brewer, 2008</td>
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<tr>
<td>Work-place blame</td>
<td>Personnel</td>
<td>Psychological</td>
<td>DeHart-Davis &amp; Pandey, 2005</td>
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<td>Increase work alienation</td>
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<td>Psychological</td>
<td>DeHart-Davis &amp; Pandey, 2005</td>
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<td>Negatively influence individual motivation to seek or provide needed information</td>
<td></td>
<td>Psychological</td>
<td>Pandey &amp; Bretschneider, 1997</td>
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<tr>
<td>Problems with involvement of externals</td>
<td></td>
<td>Collaboration</td>
<td>Feeney &amp; DeHart-Davis, 2009</td>
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<td>Problems with venturing</td>
<td></td>
<td>Collaboration</td>
<td>Pandey &amp; Garnett, 2006</td>
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<tr>
<td>Problems cannot be ended prematurely</td>
<td></td>
<td>Collaboration</td>
<td>Feeney &amp; DeHart-Davis, 2009</td>
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<tr>
<td>Impedes public managers’ interactions with the organizations’ stakeholders and external actors</td>
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<td>Communication &amp; information</td>
<td>Feeney &amp; DeHart-Davis, 2009</td>
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<td>Inflexibility in changing partners</td>
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<td>Collaboration</td>
<td>Feeney &amp; DeHart-Davis, 2009</td>
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<td>Diminishes organizational performance</td>
<td></td>
<td>Operational</td>
<td>Ljungholm, 2014</td>
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<td>Issues with efficiency and effectiveness</td>
<td>Personnel</td>
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<td>Burdensome delays</td>
<td>All dimensions</td>
<td>Operational</td>
<td>Tönurist, Kattel &amp; Lember, 2017</td>
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<td>Extensive paperwork</td>
<td>Personnel</td>
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<td>Grandia, Steijn &amp; Kuipers, 2015</td>
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<tr>
<td>Interruption in implementations innovation</td>
<td></td>
<td>Operational</td>
<td>Brewer &amp; Walker, 2010</td>
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<td>Communication &amp; information, general</td>
<td>Operational</td>
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<tr>
<td>Less flexibility</td>
<td></td>
<td>Operational</td>
<td>Chen, 2012</td>
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<td>Improved communication</td>
<td>Budgetary</td>
<td>Operational</td>
<td>Chen, 2012</td>
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<tr>
<td>Hamper managers from getting effective and useable information necessary for decision making</td>
<td>Communication &amp; information, procurement</td>
<td>Operational</td>
<td>Chen, 2012</td>
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<tr>
<td>No effect on procurement</td>
<td>Procurement</td>
<td>Operational</td>
<td>Chen, 2012</td>
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<tr>
<td>Difficulties rewarding good employees and removing lazy workers</td>
<td>Personnel</td>
<td>Operational</td>
<td>Welch &amp; Pandey, 2007</td>
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<tr>
<td>Restrict strict the number and capacity of communication channels available for transmitting information</td>
<td></td>
<td>Operational</td>
<td>Pandey &amp; Garnett, 2006</td>
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<tr>
<td>Hamper goal clarity and goal attainment</td>
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<td>Operational</td>
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SOCIAL LABORATORIES – AN INNOVATIVE APPROACH TO CO-PRODUCTION (Brand)\textsuperscript{15}

D J Brand\textsuperscript{16}

ABSTRACT

Local government in South Africa is in a crisis characterised inter alia by poor financial governance, unsatisfactory levels of service delivery, insufficient skills and huge demands from the citizens for more and better services. It needs support from the provincial and national spheres of government, but it also needs support from the business sector and the universities to build the necessary capacity and to redesign the service delivery model to provide in the demand for improved service delivery.

Co-production of public services is a very practical and useful approach to dealing with some of these problems faced by municipalities. In an innovative initiative the University of Stellenbosch has developed the concept of a social laboratory in local municipalities with the aim of addressing the needs of local communities by re-designing and co-creating identified services in those participating communities. This is not a single or simplistic co-production effort, but rather a multi-party comprehensive co-production exercise that transform the way in which services are produced and strengthening governance and sustainability of the local municipalities.

Through such a social lab the university mobilises its institutional multi-disciplinary capacity to help address the social, economic, organisational and capacity needs of local participating municipalities. The work in the social lab focuses on evidence based innovation in governance and action-learning research that is not only beneficial to the university but also to local communities who experience new, more or better services, and it can be replicated in other municipalities.

Such an initiative starts from a co-creating perspective. A municipality together with the university, with the financial support from the Western Cape Government, and the local community agree to start with such a social laboratory initiative and jointly as co-creators identify the specific service needs and ways of redesigning and delivering it. The university facilitates the social laboratory processes, but can only work within the framework agreed to with the local municipality. It provides a new mindset for looking at service delivery at local level and co-designing and co-producing services through which the community benefits but the local municipality also benefit through the added public value produced through this process.

This paper looks at some of the first social laboratories in South Africa and analyses it to provide some new perspectives and evidence on co-production within a local government context.

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1. Introduction

In the rapidly changing world we live in today, governance problems are often complex problems that require innovative and collaborative ways in solving them. Societies characterised by a variety of social, economic and governance challenges which are not dealt with effectively by existing government institutions and policy processes, struggle to progress on the development ladder, causing increasing unhappiness and rising expectations. Various initiatives have emerged in the recent past in different countries in the world to tackle some of the complex governance problems in ways that utilises a variety of resources in some form of cooperation with the public governance institutions. One such an initiative is the Mindlab in Denmark, which is an intergovernmental platform that also utilises community resources in finding new policy solutions that will create better outcomes for the citizens (Christiansen & Sabroe, 2015).

Coordinated, integrated government is the key to unlocking efficiency and effectiveness in service delivery due to its potential to remove any unnecessary duplication and the improved utilisation of scarce resources. Considering the nature and scope of the current problems South Africa faces, there is a growing concern about the ability of government to respond to it in any meaningful way. Bernstein (2014) highlighted the governance crisis in South Africa, and inter alia referred to the declining capacity of the state and the poor quality of governance in many state-owned enterprises as some of the key problems. In a country, such as South Africa, where there are many capacity shortages in various government institutions and high expectations within communities for good service delivery, there is a need to rethink the design and delivery of services. Increasing demands from communities for a wide range of public services put additional pressure on government institutions to fulfil their respective constitutional mandates. Continuous building of administrative and management capacity within local government is essential, but in a fast-changing environment it is not enough to ensure the establishment of well-functioning municipalities that can deliver a diversity of public services at the required service levels. There should be a general approach to utilise all the available resources, whether they are found within local government or in the private sector. Co-production of public services is one of the options that warrant focused attention in order to respond to various governance needs in the country.

There is great often untapped potential within communities that could be utilised pro-actively in the co-creation and co-delivery of public services (OECD, 2011). Consumers of public services
have a good idea about their own needs and could make a meaningful contribution to enhance the capacity of government institutions.

2. Theoretical context

A short description of the general theoretical context of co-production of public services is necessary in this paper in order to provide the appropriate framework for discussion of the concept of social laboratories within local communities in South Africa.

The increased discussion on co-production in the public sector over the last few years has contributed to the development of a wide range of definitions in existence that illustrate the concept of co-production. Bovaird and Löffler (2014:1) provide a crisp description when they define co-production as “the public sector, service users and communities making better use of each other’s assets and resources to achieve better outcomes or improved efficiency”.

Co-production refers to the contribution made by the service beneficiary, both public and private sector, within the service delivery process. It does not refer only to self-help by individuals or the self-organising by communities but refers to the contributions of both citizens and the public sector. There is a combined effort by different contributors or partners. In terms of Bovaird’s definition there must be a joint effort to utilise each other’s assets and resources with the aim to improve outcomes and efficiency. Co-production is thus about any active behaviour of anyone who is outside the government agency who is prompted by some action of the agency, and which then lead to a combined or collective effort. The initiative to contribute to co-production could also come from the citizens. The action taken is also at least partly voluntary and intentionally, and creates private and/or public value in terms of outputs or outcomes (Alford, 2003).

To achieve successful collective acts of co-production, it is essential to have formally organised and institutionalised activities whilst working in cooperation with others. These acts are often produced by a smaller group, rather implying collective interaction than collective action. Collective interaction can lead to reciprocity and the development of social capital (Pestoff, 2014).
### Types of Co-Production

<table>
<thead>
<tr>
<th>Type</th>
<th>Example</th>
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<tbody>
<tr>
<td><strong>Co-Delivery of Services</strong></td>
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<tr>
<td>Co-Managing Services</td>
<td>Management of assets by community</td>
</tr>
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<td>Co-Assessment (co-monitoring and co-evaluation) of service</td>
<td>Participatory village appraisals</td>
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<tr>
<td>Co-Performing of Services</td>
<td>Neighbourhood Watch or Meals-on-Wheels</td>
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<td><strong>Co-Commissioning of Services</strong></td>
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<td>Co-Planning of Policy</td>
<td>Deliberative participation</td>
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<td>Co-design of Services</td>
<td>User consultation, crowd-sourcing of ideas</td>
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<td>Co-Financing Services</td>
<td>Assistance with fundraising, agreement on tax increases</td>
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</tbody>
</table>

Source: Adapted from (Bovaird et al, 2011).

### 3. Motivating factors

There is a variety of reasons why people get involved in co-production and the motivation for the public sector might also not be the same as for the consumers or private sector co-production partners. Van Eijk and Steen have developed a theoretical model that describes the different categories of motivating factors for citizen participation (Van Eijk & Steen, 2016). They list the following categories of factors, namely:

(i) Socio-psychological factors, which relate to citizens’ perceptions on the specific co-production task and about their own competence to make a contribution.

(ii) Socio-economic variables and social connectedness, which include issues such as a person’s economic class, gender, community.
(iii) Self-interest and community-centred motivations, which include creating public benefit and contributing to the common public good.

This categorization of motivating factors makes a useful contribution to understanding why citizens consider participating in co-production of public services in specific cases. It is argued that, depending on the situation, one or more motivating factors in any of the three categories could be present.

In South Africa there is a whole range of problems within the local government sphere that causes poor or, in some cases, no service delivery. In a study on the state of local government published by the national Department of Cooperative Government and Traditional Affairs in 2014, it was concluded that one third of South Africa’s more than 250 municipalities were totally dysfunctional and one third experienced serious problems (COGTA, 2014). Only one third was fully functional and delivering an acceptable level of services to their respective communities. Many of the problems experienced by municipalities relate to administrative and management capacity, for example not enough suitably qualified staff, a lack of specific technical skills, poor financial management and political interference in management decisions. This situation inevitably has a negative impact on the delivery of services.

In some communities poor service delivery led to civil protests and unrest which became violent in some towns and even caused destruction of public and private property (Bernstein, 2014). Citizens want their concerns to be heard and considered. In the areas that are mostly affected by poor service delivery radical change is necessary and many citizens are willing to do something to improve their situation. The gap created by poor service delivery opens the possibility for co-production initiatives to be considered.

It is, however, also in well-functioning municipalities where there is a need to get more citizen involvement and explore different possibilities for the co-production of public services. Economic development needs such as investment in new infrastructure, urban planning and development and tourism promotion and support place high demands on limited financial and human resources within municipalities and this thus provide opportunities for citizens, whether they are consumers or private sector contributors, to engage in co-production activities.

4. Co-creation partners
In the case study presented in this paper the following partners are involved:

4.1 the Stellenbosch University through its School of Public Leadership, who acts as knowledge partner and where the idea for the establishment of social laboratories in South Africa was born;

4.2 the municipality, being the official government institution responsible for the delivery of a range of specific services within local communities;

4.3 the Western Cape Provincial Government, which is responsible for the initial funding for the establishment of the social laboratory; and

4.4 a variety of groups and individuals within the local community. During the public engagement phase specific institutions or individual expertise are identified as further co-production partners.

5. Social laboratories under the spotlight

Through its work in providing cutting edge research and quality training within the field of public governance, the School of Public Leadership at Stellenbosch University is often faced with questions about dealing with complex governance and societal problems. Various action research projects conducted by the School of Public Leadership within local communities in the Western Cape have highlighted the need for new approaches to deal with complex problems. It also provided an opportunity to initiate innovative methods in assisting local government in fulfilling its constitutional mandate. The basic concept of a social laboratory in the South African context was thus developed by the School of Public Leadership at the Stellenbosch University as an innovative approach in response to existing complex governance problems, but also to be proactive in creating space for social innovation.

In the nature of a laboratory where physical experiments are conducted in the context of the natural sciences, the social laboratory has a comparable character, namely that it creates a space for testing ideas and concepts within the social sciences, or put differently, it is a space for experimentation and innovation regarding public services and the creation of public value in local communities. Hassan, in the Social Labs Field Book, defines a social laboratory as follows:

“Similar a social lab can be thought of as:
- A laboratory
- A space for multi-disciplinary collaboration
- A strategy for addressing a complex challenge

And within the space of a social laboratory, a practice, a way of addressing complex challenges, is undertaken.” (Hassan, 2015). In the social lab the multiple partners work in collaboration to solve complex issues, and, according to Hassan, through these collaborative processes various forms of capital (intellectual, human, financial, social, physical) are generated or regenerated to the benefit of society. The concept of a social laboratory could clearly be utilised within the context of co-production of public services in view of the fact that it could include public and private sector partners as well as contributions by the citizens.

The first two social laboratories were established by the School of Public Leadership in two municipalities in the Western Cape during 2015, namely Hessequa Local Municipality and Saldanha Bay Local Municipality. The formal establishment of the social laboratory is done by way of a Co-operation Agreement between the Stellenbosch University, acting through its School of Public Leadership (SPL), and the specific municipality, but this follows months of preliminary and preparatory discussions between these two institutional partners. The aim of the agreement is to establish a social laboratory which will have the further aims to create and grow public value and facilitate economic development within the local community. The SPL also uses it as an academic research and learning experience. The Western Cape Government then comes into the picture as a third partner in the process when it agrees to provide funding to the local municipality to establish a social laboratory with the university. In some cases the municipality has also provided some funding.

The constitutional governance framework stipulates that the constitutional objectives of local government in South Africa are:

(a) To provide democratic and accountable government for local communities;
(b) To ensure the provision of services to communities in a sustainable manner;
(c) To promote social and economic development;
(d) To promote a safe and healthy environment; and
(e) To encourage the involvement of communities and community organisations in the matters of local government (sec. 152(1), Constitution).
All the services to be delivered by municipalities are thus anchored in this constitutional provision, which also provides the proper constitutional framework for co-production of public services in local communities.

It is evident from the assessment done by the national government that local government in South Africa is in a crisis and it warrants a great deal of support to get all municipalities at a well-functioning level. National government as well as the nine provinces have a constitutional duty to support municipalities in various ways, but this is clearly not enough. There is thus still a need for constructive involvement from consumers of services and private sector partners to contribute to public service delivery.

The categorisation of motivating factors for citizen participation in co-production developed by Van Eijk and Steen is quite helpful in this case, but also limited since it only considers the motivation for citizens to get involved. It nevertheless provides useful guidance for understanding the involvement of an academic institution in such an initiative. The motivation for the University relates to the third category, namely to help create public value and contribute to the common good. The University, being an academic institution, also has another interest, namely that of research. If it can use its work in a social laboratory to do action research and other studies which could be published and could also be utilised in teaching, it will bring additional benefits to the University, and this is an additional motivating factor.

The concept of the social laboratory must be dissected to get a better understanding of the motivating factors for citizens to get involved. One of the first activities conducted within a community after the formal establishment of the social laboratory is to have a public discussion forum to do a needs assessment of public service issues. Various interest groups, such as business chambers, churches and non-governmental organisations are invited to attend this event together with the University and representatives of the municipality. Members of the general public within the local community are also welcome to attend. This event takes at least a full day and is followed by further smaller work group discussions. The needs assessment process leads to the generation of a variety of ideas which are then prioritised and discussed in more detail by the people attending this forum and in the smaller work groups. These ideas must fit within the overall broad mandate of local government as stipulated above, which includes sustainable delivery of services, economic and social development and involving the community in local government matters. One could thus at this stage distinguish three potential partners, namely the municipality, the University and the community, which includes a variety of interest
groups and consumers of services. The University facilitates the public engagement process and the subsequent discussions.

The ‘community group’ is indeed a diverse group of institutions and individual citizens who attend the event for various reasons, but primarily because they want to see a general improvement in the general living conditions in the local community, which implies a new approach to the delivery of services by the municipality. The contribution of individual members of society and of private sector organisations is primarily motivated by socio-economic considerations or community-centred motivations such as insufficient delivery of services, poverty or the need for new economic development initiatives, thus falling in the second and third categories of Van Eijk and Steen’s model. They want to see more and better public services, or they want to introduce innovative ideas in the existing service delivery context. Some of the experts used as part of this process might also be motivated by socio-psychological factors such as their perception of their specific competence to make a contribution. An engineer with expertise in solar energy could thus for example be motivated to contribute in the co-design of new energy solutions in a local community.

Through the public engagement process the institutional partners, namely the local municipality and the University, are informed about specific expertise within the local community and sometimes also from elsewhere that could make a meaningful contribution to co-creation and co-delivery of public services. The School of Public Leadership uses its extensive network of in-house expertise, alumni and partners to source relevant expertise that could contribute already in the first exploratory phase of engagement in a local community. The lack of specific expertise within the municipal administration is thus balanced by eliciting specific expertise from the community. The University also contributes to the pool of expertise in view of its wide range of fields of knowledge. One way of describing this first public engagement process is to view it as a form of crowdsourcing of ideas and expertise.

It is already in this first exploratory phase that some form of co-design is taking place. The prioritised ideas are refined by the University together with the Municipality in order to formulate projects that fall within the service delivery mandate of the Municipality. External expertise, for example on renewable energy, entrepreneurship or information technology, is brought in to assist in the project formulation and implementation, and thus contributing to the co-creation process.
Once a co-designed project is agreed to by the University and the Municipality, it must be implemented within that community. Depending on the nature of the project or service, one of the co-production partners would take the lead in the implementation thereof while the others would play a subsidiary role, as discussed below.

In order to understand the practical implementation of the social laboratory some examples of initiatives that were born through the public engagement processes are discussed below.

Hessequa is a rural local municipality that is located about 300km from Cape Town along the Garden Route, which is an important tourist route in the country. Some of the towns in Hessequa, however, experience high unemployment which contributes to various social problems. Socio-economic development that could alleviate poverty is therefore a priority within this municipality. The effective delivery of services that can enhance socio-economic development is thus a key priority for the Hessequa Municipality. Its ability to do so is limited due to limited financial and human resources. Additional appropriate expertise is therefore needed to assist the Municipality in fulfilling its mandate. There is thus scope and a need for co-production of public services. Tourism promotion, including some innovative ideas for specific economic activities linked to tourism, was thus one of the key priority issues identified during the public engagement processes. As a consequence, a tourism indaba (a two-day public event) was held at the end of 2016 to act as an exploratory forum for discussing various tourism promotion concepts and projects. Various individual role-players and enterprises in the tourism industry provided proposals for new tourism routes and activities. The Hessequa Municipality agreed to adopt appropriate proposals presented in this way in its integrated development plan. In this way local economic development through tourism was co-designed, co-created and co-delivered by the municipality and a range of private sector partners. The University played a facilitating role in the process.

Another social laboratory was established in Saldanha Bay Local Municipality in 2015. Saldanha is a harbour town about 150 km north-west of Cape Town and it also has a new industrial development zone linked to the harbour, which is a large deep-sea port. In this social laboratory there was also an initial public engagement with a variety of people from the local community as well as different associates of the School of Public Leadership who have expertise in specific economic fields of interest. This municipality also has a high unemployment rate, but there is a lot of economic development potential that could create more jobs and contribute to socio-economic upliftment. There is a need for more skills development and tertiary education, including entrepreneurship training. Although the municipality has an important socio-economic
development mandate, it does not have any jurisdiction for delivery of tertiary education. The municipality clearly needs different service providers that can contribute to delivery of such services which could create opportunities for people to learn new skills and get qualifications that could help to find or create jobs.

Two of the issues listed during the public engagement process are skills development, in particular in entrepreneurship, and internet connectivity. A project, which utilises expertise provided by the University, as well as input by officials from the Municipality, was initiated to create jobs and skills, namely From Unemployment to Entrepreneurship (U2E), which is implemented by the Municipality and forms part of its socio-economic service delivery portfolio. This project was co-designed by the respective partners, and the implementation thereof as part of the delivery of economic development services, now rests with the Municipality.

A second project relating to internet connectivity was formulated by a group of private sector companies and associates of the School of Public Leadership and approved by the Municipality. This initiative is called the Fibre to the Home project and it provides modern fibre optic connections to households and businesses selected for the pilot project. High speed reliable internet connectivity is thus provided, which contributes to the Municipality’s mandate to promote local economic development. The Municipality made available its water infrastructure in which the fibre optic cables are laid. A group of private companies did a feasibility study, contributed their technical know-how and physically laid the fibre optic cables to create the internet infrastructure. This enables the Municipality as well as private service providers to provide internet based services to the citizens within the local community. In this respect it should be noted that this initiative is also supported by the Western Cape Government, which has a strong focus on information and communication technology as a key driver of economic growth as confirmed by Premier Helen Zille in 2013:

“A growing economy must connect people through transport and technology. We have to learn from places like Kenya where an ICT revolution is driving strong economic growth. To emulate this, we are developing a telecommunications strategy, based on a fibre optic network infrastructure that connects government, citizens and the economy to improve productivity and access to new markets. The World Bank has calculated that the economy of a developing country grows by 1.38% for every 10% increase in broadband penetration.”

The first social laboratories were new terrain for the key institutional partners, namely the University and the relevant municipalities, as well as for all the community groups and institutions. It was thus also a learning experience that helped to gain insight in the municipality’s
decision making processes and how that could be enhanced by way of co-design or co-creation. Some of the problems experienced in the first two social laboratories are:

- A lack of understanding among the municipal officials of the nature of co-production of public services, and thus of their roles in the process; and
- A lack of appreciation that the co-production partners are joint ‘owners’ of the process and the service to be delivered.

It is evident that clarification of roles and responsibilities of individual co-production partners must be done as early as possible in the process, and that the objectives and potential outcomes of the co-production processes be discussed and agreed to.

Since the identified social laboratory projects have been, or are being implemented, it means that the specific municipality then entered into a co-production phase with the University and the relevant private sector partners as co-producers of the specific services. The process of co-production could end there, but it does not have to. In reality, the continued engagement between the University, the municipalities and external potential partners produces various new initiatives for potential services. These ideas are often explored by the University and the relevant private sector partners as a first step before formally engaging one of the social lab municipalities with the aim of co-creating the specific service. Ideally, the co-production process should then be institutionalised in the municipality and continued with the private sector or community partners, even after the University has moved on to work elsewhere.

The third social laboratory in Prince Albert Local Municipality, a small rural municipality about 400 km north-east of Cape Town in an isolated and arid area, has since then been established and it could benefit from the learning gained in the first two social laboratories. The initial public engagement process there has been concluded and the first co-designed project is being delivered.

6. Benefits

The benefits of the social laboratories as innovative platforms for co-production of public services can be seen at different levels:
(i) The public engagement phase facilitated by the University and the municipality is a significant process of crowdsourcing of ideas and expertise, which enriches the municipality’s knowledge about the needed services, their relative priorities and the required quality of those services.

(ii) It provides opportunities for experts within local communities as well as within the academic sphere to test their ideas and to provide their expertise to the municipality.

(iii) Innovation in service delivery is given a boost through this process.

(iv) The identified service delivery projects often have secondary benefits, for example the Fibre to the Home project created a new revenue source for Saldanha Bay Municipality, which was not the primary aim of the project. Similar to the delivery of water and electricity services, the provision of fibre optic internet services have a fixed or infrastructure component for which the municipality can now charge a fee.

(v) New services are co-designed and co-delivered and existing services are reviewed and renewed due to the contributions of the academic and private sector partners.

(vi) The capacity of the political and administrative leadership in these municipalities is enhanced through this co-creation process.

(vii) Public value is created through the social laboratory processes.

(viii) Until now many of the service delivery projects produced in the social laboratories have socio-economic aims and benefits, for example supporting economic growth through internet connectivity or tourism promotion.

(ix) The University gains valuable research data generated through these co-production processes.

(x) During the co-creation processes the ability and willingness of a municipality to cooperate constructively with independent partners in co-production are also tested and evaluated. Subsequent action learning lessons can then be applied to design new frameworks for enhanced cooperation.

Verschure et al. (2012) indicated that the enhancement in the quality of service delivery is an important benefit of co-production. Citizen co-production can contribute to increased satisfaction among the consumers of the co-produced public services and it could also enhance democratic accountability. These benefits are also relevant within the context of social laboratories.
7. Conclusion

It often happens that crisis situations produce new ideas and opportunities that could benefit society. The multitude of problems in many South African municipalities provide opportunities for new ideas to be tested in order to help municipalities and to rescue those that are failing. External expertise is much needed in view of the lack of administrative, technical and managerial expertise in many municipalities. The University has an important role to play to utilise its vast knowledge base to make an impact in society by inter alia supporting municipalities and thus enhancing socio-economic development.

The development of social laboratories in Saldanha Bay, Hessequa and Prince Albert local municipalities was an innovative approach to co-design and co-produce public services in those municipalities. Not all the project ideas produced during the public engagement processes could be adopted, simply due to limited resources and the fact that there was a prioritization of proposals. Problems that occurred within the context of the social laboratories could be used as part of the learning experience, which will be beneficial in the future development of co-production activities in other social laboratories. The success of the initial social laboratories has also led to other municipalities that asked the University to engage in discussions with a view to establish social laboratories. There are currently three additional social laboratories under construction. The concept of social laboratories is indeed an innovative approach to the co-creation and co-delivery of public services which is much needed in South Africa, and which could perhaps also be utilised in other countries. Further work needs to be done to create a higher level of understanding of the nature and benefits of co-production among all the potential partners in the co-production activities, in particular within the social laboratories.

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Co-producing community-based tourism: the impact of community capacity-building (Mchunu and Theron)

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Abstract
The emergence of the notion of community-based tourism (CBT) as an alternative form of tourism development and service delivery promised to be a co-production vehicle where the marginalised communities would become co-producers of their own development. However, communities have not sufficiently participated and benefited in CBT ventures that largely utilises their assets and natural resources that should ideally improve their livelihoods. This is because of the lack of community capacity-building (CCB) that should empower them to participate meaningfully and become equal co-production partners. CBT should ideally allow space for communities to influence, direct, control and own development17 meant for their betterment. Authentic and empowering community participation in a tourism venture empowers communities to contribute their social capital and local knowledge in the venture.

Current practice of CBT through tourism ventures does not allow communities to be co-producers of their own development due to the lack of a community development (CD) approach. A CD approach is biased towards the marginalised and augments CCB in that it encourages strategic partnerships and external experts’ intervention, or rather facilitation but this “intervention” needs to enhance community autonomy, self-reliance and their ability to do things for themselves, i.e. control and ownership. This idealized strategic partnership takes the form of a four-level participatory planning partnership comprising of communities, public officials, the third sector and private sector enabling a grassroots space or setting, which allows for co-production. It thus encourages an integrated approach and effective resource mobilisation in the light of dwindling service delivery budgets and increasing public discontent.

This paper argues that CCB enhances the release of grassroots knowledge regimes through which the community become equal partners in the co-production and co-creation of a CBT venture. It

17 For the purposes of this paper the terms development and service delivery are used interchangeable.
does this by improving the knowledge and skills base of the community by not only empowering them to contribute effectively in a participatory planning partnership but builds active citizenship and community resilience.

This paper’s relevance lies in its contribution to the co-production body of knowledge by demonstrating how the outcomes of co-production through CCB and utilising an asset based approach (ABA) in a CBT venture can be realised. Using a case study, the paper demonstrates how co-production functions in practice in CBT and how it leads to the improvement of community livelihoods and community-building.

The paper adopted an analytical, theoretical and exploratory approach. Besides reviewing international literature on co-production, the paper analyses the principle of co-production, CCB and CBT. In addition, it explores practical experiences of co-production in South Africa by utilising a case study to illustrate the impact of capacity-building in a co-production participatory planning partnership. The authors relied on secondary data including their experiences, previous research and participatory observation by both authors in their professional capacities and the outcomes of participatory workshops with local/provincial/national government officials during facilitation of nationally accredited short course programmes on citizen participation, good governance and integrated community development planning.

**Key words:** co-production, community-based tourism, public participation, community capacity-building, active citizenship, community resilience.

**Introduction**

The notion of co-production has been in existence for decades but it is only in recent years that it has been revitalized (Verschuere, Brandsen & Pestoff, 2012:1084). As a shadow of its original conception, it has evolved from being confined into “regular producers and citizens” (Alford, 2014:300; Meijer, 2016:596) to include other potential co-producers such as volunteers, the third sector and private sector (Bovaird, 2007). Evolving research shows that co-production of public services is not only the function of professionals and
managerial staff but is also co-produced by citizens and communities (Brandsen & Honingh, 2015).

Although the phenomenon has always existed, its resurgence demonstrates the emerging governance paradigm in which collaboration and public participation are central (Brandsen & Honingh, 2015).

What is clear from co-production research is that although it has been multidisciplinary in nature (Brandsen & Honingh, 2015) focus has been on social services such as policing, health, education and housing (Bovaird et al., 2015; Pestoff et al., 2012; Meijer, 2014; Brandsen & Helderman, 2012). Thus, the potential for CBT as co-production vehicle in the tourism domain remains unexplored. Available research shows that communities have not sufficiently participated and benefited in CBT ventures that largely utilises their assets and natural resources that should ideally improve their livelihoods (Manyara & Jones, 2007:403; Giampiccoli & Kalis, 2012:174; Chok, Macbeth & Warren, 2007:144). In the same vein, CCB has also received limited attention in tourism debates (Asker et al., 2009:400).

This is not surprising because this practice is beneficial to those who possess and control power and the elite. In this regard, Agger (2012:2) points out that participatory initiatives may have good intentions of allowing the “participation” of marginalised communities, but in most cases those who participate are often those with political know-how, time and professional knowledge which in turn crowds-out communities and alienates them from their own development, mainly because they lack skills, knowledge and capacity that should enable them to participate meaningfully and become equal co-production partners who are able to safeguard their interests in the co-production process.

Similarly, public legislation and policies can encourage co-production (Brandsen & Honingh, 2015) or discourage it. For example in South Africa, the policy White Paper on Local Government (1998) sets out the principle of Developmental Local Government (DLG) which stresses the importance of people-centred service delivery and a partnership between government, the citizens and community organisations in finding viable and long-lasting ways that will address their economic, social and material needs. But what has since transpired is far from ideal. In
essence, the White Paper acknowledges that people who use services have assets that can help improve those services rather than simply having needs which must be met (Needham & Carr, 2012).

In light of the above, how can communities claim a “stake” in their own development in the light of the fact that these communities often lack capacity to use these assets for their betterment? To internalize this phenomenon, this paper invokes a community development (CD) paradigm; particularly the ABA which focuses on the strengths of a community rather than its limitations or deficits (McKnight, 1997; Suarez-Balcazar et al., 2008). The ABA will enlighten understanding of co-production in CBT because it complements the CD paradigm (Swanepoel & De Beer, 2016) that values the capacity, skills, knowledge, social networks and potential in a community, the essence of CBT.

Communities do have assets but what they lack is the skill, knowledge and capacity to enable them to use their assets effectively and efficiently so that they can derive public value that will improve their livelihoods (Theron & Mubangizi, 2014). It is this knowledge gap that this paper aims to narrow by presenting an understanding of co-production in CBT domains in relation to how CCB enhances capabilities, capacity and empowers the community to become equal partners in the co-production of a CBT venture using their assets. This paper departs with the hypothesis that:

*Co-production in CBT can (mostly) only be realised when communities gain authentic participation, capacity, capability and are empowered to effectively utilise their assets as leverage in a CBT venture to become equal partners in the co-production process, thus claiming and enabling local meaning-giving and contextual space to participate as capacitated co-designers, co-implementers and co-evaluators of the co-production “intervention”and decision-making process.*

Departing from this hypothesis it is imperative to clarify conceptual confusion of the notion of CCB because it has a critical role to play in enabling poor communities to develop their skills and
competences to take charge in transforming their livelihoods, now in becoming active and resilient communities. For the purposes of this paper, we adopt Noya et al.’s (2009:19) explanation which states that CBT is a “… process of enabling those living in poverty to develop skills and competences, knowledge, structures and strengths so as to be more strongly involved in community as well as societal life and to take greater control of their own lives and that of their communities”.

Flaspohler et al. (2008) explain that CBT exists at the individual, organisational, and or community levels, and consists of skills, motivations, knowledge and attitudes necessary to implement programmes. In involves the transfer of competencies necessary for community groups or individuals to identify their issues and address their concerns (Flaspohler et al., 2008; Noya et al., 2009). What stands out in the above explanations of CBT are the dimensions of capacity-building, i.e. skills, motivation(s), knowledge sets and attitudes which are necessary to ensure that communities are empowered to participate as equal co-production partners.

This paper analyses three dimensions, i.e. skills, motivations and knowledge sets at a community level as internal factors and power relations between the co-producers as external factor that enables co-production in CBT. Ideally, co-production should transform relations between communities and public professionals by transferring power to the community who now have capacity and capability to meaningfully participate in co-designing, co-implementing and co-evaluation of the CBT “intervention”. Above all they, the community participants as beneficiaries are the owners of grassroots assets.

The question will be addressed whether communities who are affected by co-production possess the skills and knowledge to meaningfully participate and how they can use their assets as leverage to transform their lives. How does co-production in CBT happen in practice? What are the implications of CCB in the co-production of CBT? Besides reviewing international literature on co-production, the paper analyses the principle of co-production and CBT. In addition, it explores practical experiences of co-production in South Africa by utilising an example of a CBT case study to demonstrate the impact of capacity-building in the co-production of CBT.
Community capacity building in co-producing CBT

Co-production has evolved from being confined into “regular producers and citizens” (Alford, 2014:300; Meijer, 2016:596) to include other potential co-producers such as volunteers, the third sector and private sector (Bovaird, 2007). This augurs well for co-production in CBT because co-producing communities enhance their benefits if they partner with other stakeholders who contribute what the community does not possess, e.g. expertise, funding, training, etc. Research on CBT ventures show that those that function on their own find it difficult to sustain themselves (Goodwin & Santilli, 2009:5). This means that the notion of co-production and CBT denote collaboration, shared responsibility and a partnership between the citizens (individually or as a collective), State and the third sector (Brandsen & Pestoff, 2006:495).

As argued, in South Africa communities have not sufficiently participated and benefited in CBT ventures that largely utilises their assets and natural resources that should ideally improve their livelihoods mainly because they lack capacity to contribute meaningfully to their own development. Citizens are considered “less capable” of participating meaningfully in CBT and are easily crowded out because they lack skills and knowledge (Vanleene et al., 2015). In this regard, Brandsen & Honingh (2015) state, most scholars agree that disadvantaged populations, and those in lower socioeconomic conditions tend to participate less in co-production services which lessen their ability to benefit from co-production activity. As such, Alford (2014) points out that co-production facilitation should be based on its simplification, capacity-building and the provision of necessary assistance to the less privileged.

CBT tourism was founded in the 1970s in search of alternatives to the negative effects of mass tourism and also through development agencies which had experiences of community development in other sectors (Suriya, 2010). CBT needs to be understood as a response to mainstream tourism that is characterised by the exclusive control and elite capture of the tourism industry by the dominant power of big tourism establishments such as hotel chains and tour operators who are interested in maximising profits, while CBT is seen as “backwards, un-dynamic and a hindrance to innovation and growth” (Thomas et al., 2011:1 in Koen and Thomas,
The latter line of thinking and action leads to the reduction of communities to “spectators” in their own development, taking away local control of assets, empowerment and transformation opportunities which should ideally radically transform their lives. The introduction of the CBT approach was to create a “safe space” or a “protection net” for marginalised communities to explore their assets and resources towards improving their livelihoods.

In light of the above, CBT should be seen as a vehicle, a tool and a CD strategy to be used to partner with other stakeholders (public sector, private sector and the third sector) who can ideally assist communities to empower themselves (Jugmohan & Steyn, 2015:1077; Giampiccoli & Kalis, 2012:174). This means that communities would create a tourism product, in this case, a CBT development venture that will be used to draw tourist/visitors and be sold to them (Goodwin & Santilli, 2009:4). It is important to note that CBT is not aimed at maximising profits for communities but to safeguard the impacts of tourism on their assets and natural resources (Giampiccoli & Kalis, 2012:174; Suantsri, 2014:10).

Locating CBT within the community development discourse means that it should serve the purpose of CCB, empowerment and social justice (Goodwin & Santilli, 2009:5). This approach focuses on an outcome (radical change in community livelihoods) that is synonymous with co-production. What is required is the “promotion of full reversal” whereby local expertise and knowledge (social capital and indigenous knowledge systems) is blended with external knowledge and expertise (government officials, NGO’s, etc.) respecting and acknowledging both as equal partners in a mutually beneficiary social learning process (Theron & Mchunu 2014:111-128; Chambers, 1993 in Giampiccoli & Kalis 2012:178).

The CD paradigm (Swanepoel & De Beer, 2016) is not only biased towards the marginalised in promoting “local voice” and local “choice”, but also calls for a practice involving skills base, a knowledge base and a strong value base, while ensuring the goal of CCB (Budapest Declaration,
This means that CD has as its goal meaningful participation of beneficiary communities in development endeavours in that they participate as equal partners in the co-production process and also improve their livelihoods. Therefore, a CD focused CBT approach will enable community members to develop skills and competence to explore in a co-production process towards transforming their lives and livelihoods. This will ensure the creation of coherent and resilient beneficiary community partners and partnerships in CBT ventures who (now) can face their challenges because they have earned power (Noya et al., 2009:11).

To comprehend CCB, it is important to differentiate between internal and external factors that can promote or hinder it. Noya et al. (2009:11) identify internal factors as a lack of skill, experience and resources that can be addressed by various partners. External factors include demanding ceding authority and control. As Noya et al. (2009:11) point out; addressing these challenges requires a partnership between the community, government, the third sector and private sector. In this mutually capacitating partnership, each partner must ideally contribute equally towards the success of a co-production “intervention” while CCB remains community-driven.

The authors align with the CBT definition provided by the International Labour Organisation (2005:3) which states that:

“...any business organisational form grounded on the property and self-management of the community’s patrimonial assets, according to democratic and solidarity practices; and on the distribution of the benefits generated by the supply of tourists’ services, with the aim of supporting intercultural quality meetings with the visitors”.

This definition entails various elements that are synonymous with CD, i.e. it stresses the utilising of community assets for community benefit and ownership of these assets, sharing tourism benefits. An asset can be any factor or resource which enhances the ability of individuals and communities to maintain and sustain their well-being and livelihoods. These assets can operate at the individual, family or community level as protective and promoting factors to buffer against
life’s difficulties (Improvement and Development Agency, 2010). It was argued above that CBT is based on community assets that are used with other stakeholders to derive benefits to the wider community. It therefore makes sense to base co-production in CBT in an ABA. In this regard, Foot and Hopkins (2010:6) point out that “... using an ABA enables communities to build on what assets they have to gain what they need and make improvements to their community, thereby improve individual and community well-being”. This enables communities to exercise control and power by participating in both the design and implementation of core CBT “interventions” because it is supposed to be their assets.

In an ABA, “... the glass is half-full rather than half-empty” (Improvement and Development Agency, 2010:2). The problem with the popular “deficit”- approach is that instead of a community mapping exercise and building on that, it focuses on the problems, needs and deficiencies in a community. It designs services to fill the gaps and “fix the problems”. As a result, a community can feel disempowered and dependent; people can become passive recipients of expensive services rather than active agents in their own and their families’ lives (Improvement and Development Agency, 2010:2; Theron & Mchunu, 2016:1-26).

The shift from using a deficit-based approach to an ABA model requires that there be a change in attitudes and values. Authorities and public professionals have to be willing to share power; instead of “doing things for people”, they have to help a community to “do things for itself”, they have to play a facilitation role (Improvement and Development Agency, 2010:2). A re-generated, mobilised, resilient and empowered community will not necessarily choose to act on the same issues that public professionals see as their priorities. In authentic CBT it is certainly not the case that external facilitators (partners) “have the solution” and internal beneficiaries (partners) “have the problem” (Theron & Mchunu, 2016:1-26) as is often the case in prescriptive, top-down planning regimes. It is not “power over”, neither “power to”, but power with CBT beneficiaries.

Focusing on a particular district or local setting in a partnership with other stakeholders is one of the strengths of the ABA as the case study will demonstrate. Silo-type thinking and planning and rigid agency boundaries stand in the way of people-centred outcomes and community-building (Swanepoel & De Beer, 2016). The ABA does not replace investment in improving services or
tackling the structural causes of in-equality. The aim is to achieve a better balance between service delivery and community-building (Improvement and Development Agency, 2010).

De Beer (1997:21) argues that capacity-building rests on the premise that people who stand to gain from participating in a project can lead their own change processes. This can be achieved by adopting a mutual social learning process aimed at capacitating the beneficiaries of a project to eventually take control (Korten, 1980:502 in De Beer, 1997:21). Here collaboration between grassroots project beneficiaries and their external CBT partners is essential.

In the light of the above, Monaheng (2000:135) identifies three components of CCB. Firstly, it provides access to information and knowledge, social mobilisation and the material and financial resources required for meaningful participation by grassroots beneficiaries in decisions that affect their lives. The second component involves making productive resources available to the underprivileged, entailing equitable distribution of economic resources and access to land and financial resources. In this way the negative effects, emanating from the imbalances of the past, are minimised and beneficiaries gradually realise its potential. Of significance is that the CCB process must take into consideration and accommodate the variety of societal, economic and cultural differences found in that particular community.

The last component of CCB relates to the effectiveness of both administrative and institutional structures (Bryant & White, 1992:15). This means that political structures say a local authority, must be accountable and responsive to the needs of local communities. It must be free from corruption and services must be delivered in an efficient manner.

According to De Beer (1997:22), government, primarily, must bring about CCB, but only as an enabler, not hands-on. “Non-governmental organisations, voluntary organisations, community-based organisations and the private sector must also assist in capacity-building, depending on the extent of their participation in development interventions” (De Beer, 1997:22). This assistance, according to Korten (1990:484), must be part of a mutual social learning process characterised by a flexible, sustained, experimental, action-based, capacity-building approach.

While it is obviously important that the CCB process should be developed in participation with
the participants, i.e. the CBT beneficiaries, there must be a structure capacitated by capable people, to avoid the danger of attracting ill trained trainers with no support system to assist them. If training proceeds under such conditions, participants will be frustrated and resort to protest action.

**Co-production in community based tourism**

“A growing body of evidence shows that when practitioners begin with a focus on what communities have (their assets) as opposed to what they don’t have (their needs) a community’s efficacy in addressing its own needs increases, as does its capacity to lever in external support. It provides healthy community practitioners with a fresh perspective on building bridges with socially excluded people and marginalised groups” (Foot and Hopkins, 2010:6)

The above statement hold true in that the success of CBT largely depends on community members using their assets as leverage to improve their livelihoods. Within the broad conception and before discussing how co-production in CBT happens in practice, it is important to provide background on the ongoing co-production debate. Brandsen & Honingh (2015:15) suggest a definition of co-production that is based on the basic elements that co-production should seek to achieve. They define co-production as a “… *relationship between the paid employee of an organisation and (group of) individual citizens that requires a direct and active contribution from these citizens to the work of the organisation*”. Based on these elements, they differentiated between two variations in co-production practice: (1) the extent of citizen participation in the design of services delivered to them and (2) whether citizen’s efforts are the core of the primary process or not. These led to the development of a typology comprising of four types of co-production. This paper focuses on the fourth type which is co-production in the design and implementation of core services.

What stands out from the above definition is that co-production of public services is no longer the function of the professionals and their managers in government alone, but they are co-
produced by users and communities, i.e., the grassroots beneficiaries (Verschuere et al., 2012:1085) which represent a shift to the New Public Governance paradigm (Osborne, 2010). As such, co-production in this instance denotes collaboration, shared responsibility and a partnership between the State and citizens (Brandsen & Pestoff, 2006:495). However, the definition above seems to omit other potential partners like the third sector and private sector who play an important role in CD and by extension in CBT. It is important to note that governments that co-operate with communities and private and third sector organisations in defining policies at policy-making stages is referred to as co-construction, co-policy planning and co-prioritisation (Verschuere et al., 2012:1083).

Brandsen and Pestoff (2006) call the above process co-governance. Conversely, a government that co-operates with private organisations in service delivery is co-management which means that third sector organisations have a say in the design of the service (Verschuere et al., 2012:1083). As stated, for the purposes of this paper the authors focus on the fourth type which is co-production in the design and implementation of core services (Brandsen & Honingh, 2015) but also take private and third sector organisation into consideration in the co-production process which is co-management.

In CBT communities participate through the creation of a tourism venture(s) which are distinguishable from mainstream enterprises mainly because they are comprised of small and medium enterprises with the potential to produce economic and social results especially if they follow a CD approach (Swanepoel & De Beer, 2016) which would contribute to communities’ wellbeing and where other development types or “interventions” are unlikely to succeed (Giampiccoli & Kalis, 2012:174). Here, CBT is meant to increase the participation of communities in tourism; therefore it is a key contributing factor in poverty alleviation. If marginalised communities lack skills and knowledge it makes it necessary that they enter into a partnership with other stakeholders. CBT ventures on their own are not able to achieve the desired results as most initiatives are less successful without external support in the form of investments (Mtapuri & Giampiccoli, 2013:3). A CBT venture can be created by utilising community member’s assets.
(e.g. houses, land) either individually or as a group, in what Brudney & England (1983) call group co-production.

The tourism value chain illustrates various forms and processes that CBT take in order to allow or disallow collaboration to take place. CBT ventures also take various forms based on the choice of that particular business model. These forms include joint-ownership with other stakeholders, CBT ventures that are managed by non-community members, and CBT that may or may not be located within the community itself (Draft Community Based Tourism Guidelines, 2015:3). When using an ABA, the community participate through a CBT venture which assists members of the community and they thus should derive benefits that go beyond itself but to the wider community (Mtapuri & Giampiccoli, 2013:3). In this regard, participation in the venture should have as its aim to derive benefits for individual and common social, economic, political and emotional benefits. Here, the expectation is that CBT should create economic and social linkages within the community and use responsible tourism practices that address environmental, social and cultural sustainability.

In following the above arguments, in South Africa the Draft Community Based Tourism Guidelines (2015:3) provide three types of CBT models that can be chosen to transform grassroots livelihoods:

1. **Community owned and managed tourism assets**: resources are sourced from funds from socially responsible investment (SRI) or government funds. Technical support, training and CCB may be provided by support agencies such as government or non-governmental organisations, but overall responsibility for the enterprise lies with the community.

2. **Community initiatives in a joint venture with the private sector**: a new commercial enterprise is established jointly by a community entity and a private sector entity for mutual benefit. Usually the community provides resources that they have access to (e.g. land, access to grant funding and labour) while the private sector contributes expertise.
and investment (e.g. business and financial management expertise, marketing knowledge, existing client bases, credibility and security for commercial loans)

(3) Entrepreneurs and enterprises in communities sell their products or services to tourism companies and to tourists: tourism businesses may also provide opportunities for guests to visit communities and spend money directly on products (e.g. craft, décor and food) or services (e.g. guided tours, visits to cultural attractions and transport). This approach emphasizes the participation of communities in the tourism supply and value chain. It is important to note that the type of community entity that is involved in these CBT models may be an individual, a Small, Medium and Micro Enterprise (SMME) that has less than 200 employees or an organisation with a collective structure that includes the majority (or all) members of a defined community.

The above forms of co-production in the CBT domain help to decide on the type(s) of business model that the CBT venture should adopt. The authors have indicated above that the CBT definition has critical outcomes that should be achieved, i.e. effective utilisation of community assets, democracy and distribution of benefits. Therefore it is important to also analyse the value that accrues to communities as a result of participating in a CBT venture.

Co-production in CBT presents an interesting demonstration of a shift from the original conception of co-production to collaborative partnerships where communities work with stakeholders to transform community livelihoods. As argued, communities, particularly so in South Africa, have not sufficiently benefited in what is seen as a very lucrative tourism industry which is mainly dominated by mainstream tourism. Mainstream/mass tourism leans towards a service management perspective in that production and consumption does not happen separately but it is consumed in the process of production. Co-production in mass tourism tends to take a “service dominant approach” which focuses on “intangible process rather than concrete product” (Osborne, 2010). In other words, products are consumed at the point of production. At the heart of the co-production process is the quality and performance of a service process which
is shaped primarily by the expectations of the user, their passive or active role in the service delivery and subsequent experience of the process (Osborne, 2010).

Consider a tour operator in that a tourist value is not based on the money that is paid for a tour but value creation on the part of a tourist is created when the tourist and a tour operator visits a tourist attraction which doesn’t only include the quality of a tour but tourism experience and the manner in which the tourist is received by the host. This means that value is co-created during the interaction of an experience and the expectation which is more relational rather than transactional (Brandsen & Honingh, 2015). The tour operator derives value which is private and the same applies to a tourist. The question that begs is how value is created for a community in CBT? As indicated, beneficiary participation in CBT is via a CBT venture which can either be run by an individual (guest house owner), group or a collective community (assets, land and other resources) based on an asset based approach. In this case public value is likely to be created as benefits accrue for the broader community.

Case study - Ikhaya Le Langa (the House of Sun)

Introduction

Ikhaya le Langa is a “not-for-profit” organization that is operating in Langa Township in Cape Town, South Africa. Langa is the oldest historically Black township in the Western Cape. Ikhaya le Langa’s focus is enterprise and entrepreneurial development and believes that the ability to sustain one-self economically is fundamental to one’s ability to grow. With a population of +58,000 people and a 60% unemployment rate, Langa has its fair share of social challenges. While Langa has languished at the bottom of the radicalized socio-economic order in Cape Town for generations, it is also blessed with abundant resources, e.g. history, heritage and a prime central city location. These assets are leveraged, primarily through tourism and hospitality, to develop conditions for entrepreneurial and enterprise activity. Entrepreneurial in nature, Ikhaya le Langa Management enables investment, jobs, training and business opportunities.

The concept as per the case study was realised by a social entrepreneur, Mr Tony Elvin who spent most of his working life in London. When he visited Langa Township he saw the poor state the
community was living under and he wanted to do something to improve the living standards of the community. He started engaging the City Council and the community with an intention to gain their support for his project concept. He received the support of the City Council and Ikhaya le Langa was born which has as its lead project, the Langa Quarter, the focus of this study.

Background

Ilanga Quarter is an example of the co-production of a tourism initiative that focuses on using an ABA in assisting the Langa community to establish CBT ventures. It is based on a partnership between the community, the third sector, private sector and public professionals. The partners work together to revitalise the Langa Quarter, an area of 13 streets comprising five hundred homes housing approximately 7,000 people. Their aim is to establish at least one form of enterprise in each of the 350 houses within the Langa Quarter precinct and draw tourist into the townships, attract investment and create employment opportunities for locals. The following co-production process is followed in the case study:

- The community let their assets (houses) to be used as homestays and art galleries and ensure that they are ready to receive visitors and enjoy their stay
- The third sector mobilise financial and non-financial support and provide the necessary training to the homestays and art gallery owners
- The private sector provides business expertise, financial and non-financial support
- Public professionals facilitate other support such as tourism, environmental support and business zoning

In the above partnership, the Langa community receives CCB to improve tourism skills and knowledge so that they are empowered to become a resilient (case study) community. This enables the participants to safeguard their interest and use it to transform their livelihoods, thus becoming self-reliant. The venture also ensures that benefits do not only accrue to asset holders
but to the wider Langa community and partners as the Langa Quarter works with other CBT ventures who provide different tourism experiences in the broader Langa area.

Experiences

The work of iKhaya Le Langa and Langa Quarter support individuals and communities and is invested in tackling the country’s socio-economic challenges. The Langa Quarter home-stay Hotel is providing business training and permanent employment opportunities to 17 poor households which are set to grow up to 50 families before the end of 2017. A partnership with Cape Town’s larger hotels through their enterprise development strategies allows access to the hotel sector’s training resources. The retail space “iindawo” has its own workshop development space which enables township creative’s to hone their technical skills and become commercially viable.

This Social Enterprise Hotel concept organises participating “homestay” families under one structure. Langa Quarter’s Homestay Hotel (LQHH) is a 44-bedroom “hotel” with rooms in homes dotted around the case study area. The strategic benefits of a hotel; marketing, booking and training are combined with the unique experiential quality of living with a family in a homestay. Other residents supply the LQHH with services, from laundry, food supplies and hair and pedicures. Since April 2016, 160 people had booked, bringing in more than R150, 000 (11 548.50 USD) for 20 families who participated.

An academy has been established where all types of learning takes place. Their flexible and scalable approach to learning is delivered via onsite and offsite partnerships with accredited and non-accredited institutions. Through workshops, formal and informal mentorship, on the job training, people of all skills levels are supported. Major institutions such as the University of Cape Town and Cape Peninsular University of Technology work alongside newly formed and innovative NGO’s such as Brothers For All’s coding academy, to deliver practical learning.
A partnership with the Council of International Educational Exchange, places United States Service Learning students at Ikhaya le Langa working on a range of community projects to gain necessary points for their overseas development studies. Strategic partnerships with the corporate sector, such as Microsoft delivering social media training, or small business like Caturra Coffee doing Barista training allows Ikhaya le Langa to offer a range of training opportunities. A partnerships approach has secured bursaries to AFDA film school as well as for tour guiding opportunities for Langa’s unemployed youth.

Ikhaya Le Langa has already garnered support from the private sector. Its center for enterprise and entrepreneurship is sponsored by Microsoft and is one of the few places in Cape Town to offer free public Wi-Fi. Local tourism related businesses are learning how to use technology to grow their business. Ikhaya Le Langa creates hundreds of job and business opportunities through tourism and the redevelopment of the broader Langa neighbourhood.

Conclusion

The Ikhaya Le Langa case study demonstrates how CCB can have a positive impact in the lives of marginalised community members of Langa Township. The case study shows that CBT largely depends on an asset based community development approach as key informant of CBT venture creation. The process is undertaken to establish what community assets can be used to bring about change in the lives of community members.

What is clear is that the Langa Quarter mobilises potential small business that would have ordinarily operated individually to co-produce as a group which enhances their product offering. For example, home stays are now offering the combined 44 beds which can attract bigger tourists groups. What is experienced is individual community members actively collaborating with government and the third sector to design and implement their own community based projects that does not only change their lives but the broader community, the essence of CBT. It is
advisable that this innovative service delivery model be replicated to other areas so that other communities can reap the benefits.

Third sector participation in public service delivery partnership shows that it cannot only mediate in dwindling municipal budgets due to fiscal constraints and increasing citizen’s public service delivery discontent but can increase authentic citizen participation in a co-production partnership of public services provision as it is based on group action and direct citizen participation. This has potential to close a “great divide” that exists between public professional and citizens. Therefore, third sector participation needs to be understood as a platform for participation, a “conduit” to improved service delivery and democratisation.

In essence, the citizens and the third sector in co-production partnership with the State provides a platform for the partners to co-design, co-implement and co-evaluate to reflect different stages of their participation and input. This partnership works as it is more bottom-up and based on people-centred development in that it allows citizens space to increase their personal and institutional capacities to mobilise and manage resources to produce sustainable and justly-distributed improvements in their quality of life, consistent with their own aspirations.

The case study shows that co-production is able to fundamentally change the role of citizens and government (Bovaird, 2007; Pestoff, et al. 2013; Meijer, 2016; Theron & Mchunu, 2016) in a public service delivery process, as the role of public officials have changed from that of a service deliverer to that of a facilitator. This partnership empowers and encourages community members to contribute their own resources (social capital, local knowledge, time and effort) and enable them to take control of public services and become active participants so that outcomes can be achieved.
References


Keynote Lecture: Jeffrey L. Brudney

“Coproduction: The Strange Tale of How ‘Sometimes the ‘Wrong Train’ Can Take Us to the Right Place”
Who Engages in the Coproduction of Public Services and Why? (Uzochukwu and Thomas)

The Case of Atlanta, Georgia

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Who Engages in the Coproduction of Public Services and Why?

The Case of Atlanta, Georgia

Abstract

With the recent resurgence of interest in coproduction, questions arise around who will join with government in coproducing services and why. The answers to these questions could hold important implications for public management given the frequent desire of governments, in the face of continuing resource constraints, to increase the public’s role in service production. This paper will look for answers to these questions using survey data on citizen engagement in various forms of coproduction with the city of Atlanta, Georgia.

Drawing from prior research, we will test two principal theories for citizen engagement in coproduction: (1) Political participation: As a form of involvement with government, coproduction might follow patterns documented for political participation, where civic and social motivations often dominate. (2) Citizen-initiated contacting: Involvement with coproduction might also resemble this contacting, where citizens often are motivated by specific service needs they perceive. The two theories together imply a set of hypotheses that this paper will test.

The hypotheses will be tested using data from a self-administered survey questionnaire of Atlanta, Georgia, residents. The City of Atlanta offers a special opportunity to examine coproduction because its Neighborhood Planning Unit (NPU) system was established in 1974 to facilitate such activities. We will examine survey data on which NPU members engage in specific coproduction activities and the factors that motivate their engagement. A concluding section will consider the implications of the findings for public managers who want to increase the citizen role in coproducing services.
INTRODUCTION

Coproduction refers to a phenomenon wherein citizens join with government to jointly produce public services. Coproduction occurs at the individual level, as when citizens sort recyclables from trash, and at the collective level, as when a non-governmental neighborhood organization assumes responsibility for running a neighborhood recreation center.

Coproduction has been around for as long as governments have existed, but it was not explicitly recognized until the pioneering work of Elinor Ostrom and a handful of other U.S. scholars in the late 1970s (e.g., Levine 1984; Brudney and England 1983; Parks et al. 1981; Percy, Kiser, and Parks 1980; Whitaker 1980; Ostrom et al. 1978). After virtually disappearing from academic discourse for almost two decades, the phenomenon has drawn new attention recently, first overseas and then in the U.S. again.

With the renewed attention has come a variety of questions about the nature of coproduction, including who in the public joins in service coproduction and why. The present study seeks answers to that question using survey data on participation of neighborhood activists in various forms of coproduction in Atlanta, Georgia.

The paper proceeds as follows. We first review the history of the coproduction concept, in the process defining the meaning and types of coproduction. Lacking prior theory on who engages in coproduction, we next draw on theories of other forms of citizen engagement to propose hypotheses specific to coproduction. After an explanation of the research methodology, a results section details what the data tell us about who engages in coproduction in Atlanta. We conclude by reflecting on what the findings imply about theories of
coproduction and about how public administrators might better engage the public to coproduce more effective public services.

The Significance and Meaning OF COPRODUCTION

A new sense of the potential significance of coproduction appears to explain the phenomenon’s reemergence on the world stage in both governmental and academic circles. First, students of public services have increasingly recognized that the effectiveness of services typically requires contributions from both the public and government. In the classic example, public education succeeds only if both educators and students do their parts, but the same truth holds for a wide range of public services (e.g., Whitaker 1980). Second, the work of government increasingly focuses on producing services, rather than goods, and it is with services that coproduction is most prevalent (Osborne, Radnor, and Nasi 2013). People typically want their services customized, and that only happens if they join in producing the services. Third, declining fiscal capacity has sparked governmental interest in finding more efficient ways to produce services, as by increasing the public’s role in that production. Finally, a push to democratize administrative processes has also contributed to interest in coproduction.

How coproduction is defined depends on who is doing the defining (see, for example, Brandsen and Honingh 2015). We prefer the definition of John Alford, arguably the most authoritative coproduction scholar since Elinor Ostrom, who defines coproduction as “any active behavior by anyone outside the government agency which”:
• is conjoint with agency production, or is independent of it but prompted by some action of the agency;

• is at least partly voluntary; and

• either intentionally or unintentionally creates private and/or public value, in the form of either outputs or outcomes.

We prefer this “relatively broad” definition for its ability to encompass a wide range of coproduction behaviors.

Coproduction can be undertaken individually or collectively, and both forms are important with public services (Petukiene 2010; Bovaird 2007; Roberts 2004; Brudney and England 1980). Individual coproduction is often critical to the public service production process, as public agencies cannot successfully plan, implement, or monitor most services without the help of individual citizens. They can help by, for example, picking up litter around their neighborhoods, using public facilities judiciously to help extend their life, and providing feedback to public agencies on service issues (e.g., potholes, graffiti).

As common as individual-level coproduction may be, many scholars accord greater importance to collective coproduction, arguing that it conveys more power to citizens, as sometimes through power-sharing collaborations between government and the public (e.g., Petukiene 2010; Bovaird 2007; Brandsen and Pestoff 2006; Cooper and Kathi 2005;). As Victor Pestoff (2009, 218) has argued, “only when citizens are engaged in organized collective groups can they achieve any semblance of democratic control over the provision of public financed services.” Collective coproduction arrangements, involving neighborhood organizations or
school councils or the like, may bestow real power on citizens by engaging them in the planning, delivery, and management of public services.

Coproduction also varies by the stage of the policy process in which it occurs. Citizens may join in coproducing during program planning, service delivery, and/or service monitoring, phases which are termed below (1) co-planning, (2) co-delivery, and (3) co-monitoring. Co-planning occurs in the development of programs, co-delivery in the provision of services, and co-monitoring in the assessment of those services.

THEORY: WHO ENGAGES IN COPRODUCTION AND WHY?

With the resurgent interest in coproduction, questions arise about who joins with government in coproducing services and why. Answers to these questions could hold important implications for public managers, who may hope to increase the public’s role in service production, and for democracy more generally, as we consider how to engage a more representative public with its governments. Yet, as Van Eijk and Steen (2016) recently reported, prior research has left these questions mostly unanswered as the “coproduction literature merely discusses citizens’ motivations, and empirical evidence is scarce.” Moreover, except for a single exploratory study by those same authors, the literature offer no theory of involvement in coproduction.

A search for theory might look first at the literature on political participation, a behavior also focused on engagement of the public with public affairs and government (e.g., Schlozman 2002). As is the case with that participation, involvement in coproduction might be expected to increase with, for example, an individual’s (1) sense of political efficacy (i.e., ability to
influence), (2) sense of civic duty (i.e., feeling a responsibility to serve), and (3) feeling able to make a difference. Consistent with that speculation, Van Eijk and Steen (2016) found engagement in coproduction was linked to both “internal efficacy,” defined as “citizens’ feelings of personal competence,” and “community-centered motivation,” defined as the “belief that that individuals have responsibility for contributing to the common good.” In addition, the political participation literature also suggests coproduction involvement may also grow with (1) encouragement from friends or neighbors and with higher levels of (2) education and (3) income (Schlozman 2002, 440-443).

But involvement in coproduction differs significantly from most or all forms of political participation. Where political participation may focus on affecting the general policy direction of government, involvement in coproduction typically focuses on more specific, immediate, and often personal needs. It is the difference between, on the one hand, wanting to move government in a more conservative direction by working in an electoral campaign and, on the other hand, seeking to clean up a park by partnering with a municipal parks department.

That frequent focus on personal needs suggests that any theory of coproduction involvement might also draw from the literature on citizen-initiated contacts with governments (e.g., Thomas and Melkers 1999; Coulter 1992; Hirlinger 1992). As Thomas and Melkers (1999, 668) have observed, “Citizen-initiated contacts differ most clearly from other types of political participation by their roots in needs for government services.” These contacts find individual citizens phoning, emailing, or texting government with requests for or complaints about services, ranging from complaints about potholes to reports of missed garbage collection to requests for police assistance.
The shared basis in service needs could mean that many of the same factors that appear to prompt citizen-initiated contacts could also spur engagement in coproduction. Those factors include personal needs, especially perceived needs since “the needs likely to be crucial in motivating contacts are those that citizens perceive for particular government services,” not needs in some objective economic sense (e.g., low income) (Thomas and Melkers 1999, 669). They may also include factors reflective of personal investment in the community, such as home ownership and interest in local government (Cox 1982; Thomas and Melkers 1999, 671). Finally, they may also include some factors important for political participation, such as a sense of personal efficacy. Feeling personally efficacious should increase one’s confidence in being able both to approach public officials about joining in service production and then to contribute to that production (Alford 2009, 2002; Powers and Thompson, 1994), much as it spurs political participation and citizen contacting.

Ultimately, a comprehensive theory of coproduction involvement probably needs elements from theories of both political participation and citizen-initiated contacting, with the relevant elements varying by the form of coproduction. Engagement in individual coproduction, for example, may most closely resemble citizen-initiated contacting in that both may have their principal roots in perceived service needs. As for collective coproduction, since it entails working with others, social factors (e.g., encouragement from friends or neighbors, wanting to be part of a community) could play more of a role than with individual coproduction or an individual citizen contact. That role might be comparable to the role social factors play in political participation, though the social factors with collective coproduction are more likely to reflect neighbors and the local community in contrast to friends more generally with political
participation. One’s sense of civic duty may also figure more prominently in collective coproduction and co-monitoring, given their common focus on issues that extend beyond the personal, than in other forms of coproduction. Finally, engagement in co-planning with its locus in public or quasi-political arenas might more closely resemble political participation, whereas engagement in co-delivery or co-monitoring might more closely resemble contacting behavior given the street-level locus of all three.

Material Motivations: Service Needs

This thinking implies a set of hypotheses about who will engage in which forms of coproduction and why. Given the expected primacy of perceived needs for services for much coproduction involvement, we begin with two hypotheses about the role of those needs.

*Hypothesis 1.* As perceived needs for new or improved public services increase, involvement in coproduction will also increase.

At the same time, those needs may exert a stronger influence on some forms of coproduction involvement than on others:

*Hypothesis 2.* Perceived needs for new or improved service will exert a stronger influence on involvement in (a) individual as opposed to collective coproduction and (b) co-delivery and co-monitoring as opposed to co-planning.

Nonmaterial Motivations: The Personal, Social, and External

A variety of nonmaterial motivations also seems likely to influence engagement in coproduction. First, a stronger sense of personal efficacy is likely to spur more coproduction involvement by increasing one’s confidence in approaching public officials. This linkage should hold with all forms of coproduction since all entail approaching public officials and expecting to be able to influence or contribute.
**Hypothesis 3.** As one’s personal sense of efficacy increases, involvement in all forms of coproduction will increase.

A sense of civic duty—a felt need to share the responsibility for one’s community—may motivate involvement in coproduction. While citizens can choose whether 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, 15).

**Hypothesis 4.** As one’s sense of civic duty increases, involvement in coproduction will increase.

At the same time, the sense of civic duty may exert more influence on involvement in forms of coproduction focused on addressing community needs, the essence of the civic, than on those forms focused on one’s personal needs, the anti-thesis of the civic.

**Hypothesis 5.** A personal sense of civic duty will exert a stronger influence on engagement in collective than individual coproduction.

Involvement in coproduction may also be driven by the perceived intrinsic value of gaining a sense of purpose and accomplishment from the effort. We might expect that kind of public service motivation—with its focus on serving others (e.g., Perry and Wise 1990)—to play a larger role with involvement in collective than individual, more likely self-interested coproduction.

**Hypothesis 6.** As one’s sense of purpose and accomplishment increases, involvement in collective coproduction will increase, but involvement in individual coproduction will remain unchanged.
People may also join in collective coproduction “because they enjoy the company, fellowship and esteem of others” or want to feel part of a community (Alford 2009, 27). That desire to belong to a community may exert even more influence on keeping people involved in collective production, as Levine (1984, 183) has suggested for crime prevention activities:

“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.”

On the other hand, a need to belong seems unlikely to influence involvement in individual coproduction because individuals have chosen to work alone, not as part of a group. Two hypotheses result:

Hypothesis 7. As one’s interests in being part of a community increase, involvement in collective coproduction will increase, but involvement in individual coproduction will remain unchanged.

There may also be external motivators that drive people to join in coproduction. First, in a pattern related to wanting to be part of a community, encouragement from neighbors could influence people to join in coproduction, though perhaps only collective coproduction given the non-social nature of individual coproduction.

Hypothesis 8. As perceived encouragement from neighbors increases, involvement in collective coproduction will increase, but involvement in individual coproduction will remain unchanged.
Second, government may also encourage engaging in coproduction, as by providing mechanisms that facilitate and so potentially increase that engagement. Any governmental encouragement may affect involvement in all forms of coproduction equally.

*Hypothesis 9.* As perceived encouragement from government increases, involvement in all forms of coproduction will increase.

**Demographic Factors**

Demographic characteristics reflective of greater investment in the community may contribute to greater involvement in coproduction. The most notable of these is homeownership, which increases one’s investment in the community and stake in community affairs even as it reduces one’s ability to exit the community (Thomas and Melkers, 1999).

*Hypothesis 10.* Controlling for other factors, homeowners will be more involved in coproduction than will renters.

For similar reasons, parents of minor children might also be expected to join more in coproduction. However, since prior research (e.g., Thomas and Melkers 1999) on both citizen-initiated contacts and political participation has seldom found such a linkage, we do not expect having minor children will increase involvement in coproduction.

*Hypothesis 11.* Controlling for other factors, residents who have minor children at home will be no more involved in coproduction than will residents without minor children at home.

The literature is divided on a possible influence for income or education, with some of the political participation literature suggesting a role and most of the citizen-initiated contacts research suggesting no role. That division might translate to a role for income and education in those forms of coproduction that are like political participation and no role with other forms.
Hypothesis 12. As income and education increase, involvement in co-planning will increase, but involvement in other forms of coproduction will remain unchanged.

Race represents an especially interesting factor for this research. Substantial prior research suggests less involvement in coproduction in predominantly non-White, low-income communities (Jakobsen 2012; Rosentraub and Warren, 1987), at least in part because past bureaucratic injustices and failed attempts at meaningful citizen participation in these communities have led to cynicism and apathy and a disinclination to work with government (Thomas, 1995, 25; Levine 1984). In the Atlanta case, however, the city’s Neighborhood Planning Units were established principally to serve the needs of the city’s Black and historically disenfranchised populations. The city also has a unique history of public participation of African Americans tracing to the city’s centrality in the Civil Rights Movement. Recognizing this unusual history, we suspect that, other things being equal, Blacks will be more likely to join in coproduction in Atlanta.

Hypothesis 13. Controlling for other factors, Blacks will be more involved than Whites in coproduction.

To be clear, we propose this hypothesis specifically for the city of Atlanta. The role of race in coproduction in other cities will likely depend on their specific histories.

Finally, although some studies (e.g., Conway and Hatchen 2005) have found no significant role for age in local involvement, we suspect that older adults, because they are “more dependent on public services” and have more available time, will join more in coproducing services (Thomas and Melkers 1999, 669).
Hypothesis 14. Controlling for other factors, older residents will be more involved than younger residents in coproduction.

DETERRENTS

Even as many factors may encourage involvement in coproduction, other factors may deter. The scholarly literature and a focus group of Atlanta neighborhood leaders (see below) suggest several possible possibilities:

- People may feel they lack the time to become engaged.
- They may simply not be interested in specific services or, in any event, not be interested enough to want to assist in its production.
- Some could feel that everything is fine, that service delivery is functioning at least adequately, making their contributions unnecessary. That perspective could be encouraged by service providers who view themselves as the “experts” with citizens as only the recipients or targets of services (e.g., Bryer 2009).
- Finally, people may feel service production is government’s job and should not require assistance from citizens (Thomas 2012; Goetz and Gaventa 2001).

Combining those factors results in this hypothesis:

Hypothesis 15. The more people report lacking time or interest, view services as fine without their assistance, and/or view service production as government’s job, the less they will be involved in coproduction.

METHODOLOGY

We test these hypotheses using data from a survey of 797 participants in Neighborhood Planning Units (NPUs) in the city of Atlanta, Georgia. The survey data are supplemented by (1)
results from a focus group of NPU leaders, (2) Census population data, and (3) direct observation of selected NPU meetings.

We chose Atlanta and its NPUs as the context for this study for several reasons. First, as a large city (population approximately 456,000 at the time of the survey in 2014) with a diverse population, Atlanta offers the opportunity to measure the quantity and variety of coproduction amidst “a sharply contrasting mosaic” of high inner-city poverty in some areas and substantial economic prosperity in others (Sjoquist 2000, 1). Lessons learned from this diverse context might generalize to other central cities with similar profiles.

Second, Atlanta’s NPUs offer an excellent venue for studying involvement in a variety of coproduction activities by some of the city’s more engaged residents. By the nature of neighborhood planning, NPU participants seem likely to reflect involvement in a broad range of municipal services, extending well beyond zoning and land use. As Martin and Carolyn Needleman (1974, 93) observed in their classic early study of a range of community planning programs:

“The deepest concerns of community residents are usually social: crime, idle youth. Employment, rat control, air pollution, changes in the area’s racial composition, getting streets cleaned and garbage collected regularly. If the planner can convince residents he is really there to help plan for neighborhood improvement, these are the problems they direct the planner toward—not the physical structures and land use patterns in the area.”
On that basis, we expect Atlanta’s NPU members can tell us a great deal about the range and extent of involvement in municipal coproduction.

As a first step toward the survey, one of the authors conducted a focus group of NPU leaders to learn about coproduction activities occurring in their locales. All 25 NPU chairs were invited to participate after an annual Atlanta Planning Advisory Board annual training that they were required to attend. Eight actually came to the focus group, which was conducted immediately after the training in a City Hall conference room. Hoping to avoid the “if only we had known beforehand” problem (Patton 2002, 431), participants were asked to (1) identify examples of coproduction activities in Atlanta, (2) provide ideas on which public service areas are more frequently and/or more easily coproduced, and (3) suggest the general motivations behind citizen coproduction.

Taking ideas gained from the focus group and from the literature on coproduction, we constructed a mostly closed-ended questionnaire to ask NPU members about their involvement in coproduction of municipal services. The questionnaire was kept brief to require only 10-15 minutes to complete, and was pretested on colleagues who lived in the city of Atlanta and on attendees at an NPU meeting.

Two collection modes were used to administer the questionnaire: an online survey of NPU members and a hardcopy paper survey at NPU meetings. For the online survey, after the principal author had attended a number of NPU meetings and become known to NPU leaders, email invitations were sent to the 25 NPU chairpersons requesting that they forward the Survey Monkey questionnaire link to their membership lists. (The city provides each NPU with a database of members’ email addresses.) Having the survey invitation sent by a recognized NPU
leader rather than by an unknown researcher was designed to encourage participation (Newcomer and Triplett 2004).

A paper survey was also necessary because, during visits to NPU meetings, some members expressed a preference for a hardcopy version. To emphasize its brevity, this version was limited to a one-page, double-sided questionnaire. For this part of the research, one of the authors attended the regularly scheduled meetings for all 25 NPUs, and distributed the questionnaires to attendees who had not completed the web version. To emphasize the anonymity of their responses, the researcher brought a sealed ballot box into which completed questionnaires would be inserted (Groves et al. 2009; Newcomer and Triplett 2004).

The exact number of paper questionnaires distributed is unknown. However, with the exception of typically one or two abstentions per meeting, nearly all NPU meeting attendees completed the paper questionnaire, usually with apparent enthusiasm. The response rate for the online questionnaire is also unknown because the email invitations came directly from the NPU chairs, but it is reasonable to assume a lower response rate than for the paper version (Wholey, Hatry, Newcomer 2004). In all, there were 406 paper responses and 391 online responses for a total of 797 responses in the dataset.

The two forms of survey administration brought the additional benefit of diversifying the respondent base. The hardcopy questionnaires were completed by residents who were, on average, more active in their NPUs, as evidenced most obviously by their attendance at the NPU meetings when the survey was administered, than were the online respondents.
Table 1 shows summary characteristics for the full sample of respondents and for the separate samples of paper and online respondents, with the far right-hand column showing, in addition, summary characteristics for a 2007 random sample of Atlanta residents for a quarterly citizen satisfaction survey then being conducted for the city. (The city’s survey was conducted by the Carl Vinson Institute of Government at the University of Georgia.) The latter permits a comparison of how the current study’s respondents compare to city residents as a whole.

[Table 1 about here]

To no surprise, respondents to our survey differ on several dimensions from respondents to the city’s survey. As might be expected of people who are more involved in their neighborhoods, our respondents are more White, have higher incomes and more education, and are much more likely to own their own homes than is true for residents citywide. The online and paper respondents differ from each other on a number of dimensions, with the paper respondents being more Black, having lower incomes and less education, and being less likely to own their homes. The lower socioeconomic standing of the respondents to the paper survey might have been predicted given their preference not to respond online.

Overall, the comparisons suggest that we will be examining involvement in coproduction by people who are more invested in their communities than is the average resident. That reality makes our sample more likely to be more involved in coproduction, but also potentially more interesting for exploring variations in levels of and motivations for joining in coproduction.

FINDINGS
After importing the data into SPSS and Stata statistical software packages for analysis, we used descriptive statistics and logistical regression analyses to answer our research questions.

**Descriptive Statistics**

To assess the extent of coproduction involvement, the questionnaire asked for each of the activities in Table 2: “In the last 12 months, how many times have you participated in the following activities?” Answer options were “never,” “1 to 3 times per year,” “4 or more times per year,” and “more than one time per month.” As the table shows, respondents reported being extensively involved in coproduction, but with that involvement varying greatly across the different forms of coproduction. Attending community-related meetings (other than NPU meetings) emerged as the most common activity with 79 percent of respondents reporting this attendance, but comparable proportions said they had joined in cleaning up their neighborhoods (76%), donated money (76%), attended NPU meetings (75%), shared opinions with elected officials (72%), and reported suspicious activities (71%). Smaller proportions—but still majorities of the respondents—said they reported service problems (63%) or code violations (55%), attended city council meetings (52%), and thanked service agents (51%).

[Table 2 about here]

This listing appears relatively representative of what other scholars have previously reported as principal forms of coproduction at the local level (e.g., Fledderus, Brandsen, and Honingh 2014; Albrechts 2013; De Witte and Geys 2013; Linders 2012; Paarlberg and Gen 2008). The principal omissions pertain almost entirely to specialized local entities and services, such as schools, health centers, libraries, and public housing projects.
To learn what motivates joining in coproduction, respondents were asked about eight possible reasons for doing so and four other reasons that might have deterred that involvement. As shown in Table 3, respondents rank civic and social factors as the most important reasons for joining in coproduction, much more important than personal service needs. The strongest motivations by far, each cited by a majority, were (1) feeling they could make a difference (63%), (2) feeling it was their duty (59%), and (3) making them feel connected to their community (58%). As the far right-hand column of the table shows, those were also the three factors cited as most important by the respondents. Far smaller proportions reported being motivated by specific service needs (27% and 10%, respectively), and even smaller proportions cited encouragement from neighbors or government (18% and 4%, respectively). As the other side of the coin, respondents clearly see lack of time as the principal deterrent to their joining in coproduction, with 62 percent citing that factor and 40 percent rating it the biggest deterrent. Small but still notable proportions also reported not being interested (33%) or feeling everything is fine (23%) as reasons for not engaging in coproduction.

[Table 3 about here]

To provide a sense of who joins in coproduction, Table 4 summarizes demographic central tendencies for the various coproduction activities. Among the interesting patterns, most forms of coproduction appear to be more the province of black than white respondents, perhaps reflecting the affirmative action roots of the NPUs. Men are also more likely than women to engage in most forms of coproduction. Somewhat surprisingly, involvement in coproduction tends to be higher for those who are less educated rather more and those with
lower incomes rather than higher. Finally, as expected, older residents and those who own their homes are more likely to join in most forms of coproduction.

[Table 4 about here]

**Multivariate Logistic Analysis**

As the central question of this research, we asked which factors appear to exert the strongest influence on engagement in different forms of coproduction. To answer this question, we performed this analysis:

Logistic regression analysis: \( y_{1-5} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \ldots + \beta_M x_M + \varepsilon \)

Where:
- \( y_1 \) is participation in individual coproduction
- \( y_2 \) is participation in collective coproduction
- \( y_3 \) is participation in co-planning
- \( y_4 \) is participation in co-delivery
- \( y_5 \) is participation in co-monitoring
- \( x_1 \) is female respondent
- \( x_2 \) is Black respondent
- \( x_3 \) is income of respondent
- \( x_4 \) is education respondent
- \( x_5 \) is age of respondent
- \( x_6 \) is dependent child living with respondent
- \( x_7 \) is respondent’s home/business ownership status
- \( x_8 \) is service provision motivation
- \( x_9 \) is service quality motivation
- \( x_{10} \) is personal efficacy motivation
- \( x_{11} \) is civic duty motivation
- \( x_{12} \) is social need motivation
- \( x_{13} \) is neighbor encouragement motivation
- \( x_{14} \) is government encouragement
- \( \varepsilon \) is the error term

Gender, race, home ownership, and having minor children living at home are all treated as binary variables where (1) female coded as 1 and male as 0, (2) Black coded as 1 and White
as 0, (3) being a homeowner coded as 1 and being a renter as 0, and (4) having a minor child living in the home coded as 1 and not having a child at home as 0. Income and education both have four categories coded from 0-3, and age has seven categories coded from 0-6.

**Hypothesis Testing**

Tables 5, 6, and 7 show the results of these analyses for involvement in the various forms of coproduction. To test each hypothesis, we count the number of forms for which the hypothesis holds (i.e., the number of statistically significant logistic relationships) versus the number for which the hypothesis does not hold. These counts admittedly represent crude metrics, but still perhaps the best metrics possible for testing the hypotheses.

[Tables 5, 6, and 7 about here]

To begin with, the data offer partial support for the hypotheses on the role of perceived needs. On hypothesis #1, one or both of the perceived needs measures emerged as a significant predictor of involvement in six of the fourteen forms of involvement, but for one of those forms (attendance at a city council meeting) the relationship was inverse, more needs appearing to make council meeting attendance less likely. As the other side of the coin, neither measure of perceived needs proved a significant predictor of involvement in eight or most of the forms of coproduction. Consistent with hypothesis #2, those needs did appear to be more significant for involvement in individual (significant for four of nine forms) as opposed to collective coproduction (no statistically positive relationships).
Personal psychological motivations, the subjects of hypotheses #3-6, emerged as more frequent significant predictors of involvement in coproduction than did perceived needs, as follows:

- Being able to make a difference (sense of personal efficacy): significant for ten of fourteen forms of coproduction.
- Sense of purpose or accomplishment (sense of personal efficacy): significant for nine forms.
- Sense of civic duty: significant for nine forms.

However, contrary to hypothesis #6, one’s sense of accomplishment was not more important for involvement in collective coproduction (significant for two of three forms) than individual coproduction (significant for six of nine forms).

Hypotheses #7-9 on the role of social, neighborhood, and governmental motivations found only limited support in the data. Interest in being part of a community or encouragement from neighbors, the focus of hypothesis #7, emerged as a significant predictor for involvement in only four forms of coproduction and in one of the four, the relationship was inverse—encouragement from neighbors being linked to lower likelihood of attending a city council meeting. On the other hand, hypothesis #8 found some support in that the neighborhood and community motivations proved significant positive predictors of involvement only in collective coproduction (attending an NPU or other community meeting) or possible collective coproduction (cleaning or maintaining a community facility). Neither emerged as significant for involvement in any of the individual forms of coproduction. Finally,
encouragement from government (hypothesis #9) was only occasionally a factor, significant for two forms of coproduction (filing a complaint against a service agent and attending a court hearing).

The data provide relatively strong support for several of the hypotheses on possible demographic influences. As predicted, owning a home (hypothesis #10) is a significant predictor of involvement in nine forms of coproduction, age a significant predictor for seven forms (hypothesis #14), and having minor children at home is not a significant predictor for any form (hypothesis #11). Consistent with hypothesis #12, income and education emerged only occasionally as significant predictors of coproduction, even then more often in inverse relationships. However, the two significant positive relationships for the two variables appeared, as predicted, with involvement in two forms of collective coproduction (attending a non-NPU community meeting and sharing an opinion with an elected official), a pattern consistent with traditional political participation. The data provide less support for hypothesis #13, with race—specifically, being Black—proving significant for only four forms of coproduction.

Consistent with hypothesis #15, several possible deterrents proved significant predictors for why respondents did not join in all but two of the forms of coproduction. The most frequent significant deterrent was thinking everything is “fine” (significant for involvement in seven forms), followed closely by reporting “no time” to be involved (five forms) and not being interested (four forms).
The findings also suggest, though, the impossibility of explaining involvement in coproduction by any single pattern or theory. The data appear instead to reflect some classic patterns of coproduction along with some a number of idiosyncratic variations.

**Pattern #1: Coproduction as Citizen Contacting**

In patterns similar to those found with citizen contacting, residents appear to join in several forms of coproduction due to some combination of (1) perceived service needs and (2) personal intrinsic motivations (e.g., sense of purpose, sense of civic duty, and the feeling of making a difference. That description fits four of the activities respondents were asked about:

- **Reporting code violations, reporting service problems, and reporting suspicious activities.**
- **Involvement in neighborhood cleanups:** This activity represents the prototypical coproduction case since involvement is significantly linked to both kinds of service needs, all the psychological motivations (sense of purpose, sense of civic duty, wanting to make a difference), *and* wanting to connect with neighbors. This is a pattern we thought might be more common, but the data suggest otherwise.

**Pattern #2: Coproduction as Political Participation**

Two co-planning activities more closely resemble political participation than classic coproduction due to their apparent roots in (1) intrinsic personal motivations and (2) community/neighborhood motivations, without any significant linkage to service needs:

- **Attendance at NPU meetings and attendance at other community meetings.**
These activities differ from most political participation in that residents appear to be not so much recruited by neighbors, as in much political participation, as motivating by wanting to have more of a community connection.

**Idiosyncratic Variations**

The idiosyncratic variations may be at least as striking since they extend to the remaining seven of the fourteen forms of coproduction. That idiosyncratic nature is evident first in the unexpected pattern of perceived needs not proving significant for involvement in five of the nine forms of individual coproduction. Possible explanations can be found only by examining each of those forms in turn:

- **Donating money for a community event or project:** This may be the kind of civic-oriented behavior more likely to be catalyzed by wanting to be a good citizen and a good neighbor than by any personal needs. Accordingly, four significant predictors of this behavior are (1) a sense of purpose or accomplishment, (2) feelings of making a difference, (3) a sense of civic duty, and (4) wanting to connect with neighbors.

- **Attending government information or training sessions:** Attendance at these governmental sessions appears similarly to be more of a civic-oriented behavior than an effort to satisfy personal services. As with donations, attendance appears to be motivated by (1) a sense of purpose, (2) a sense of civic duty, and (3) a feeling of being able to make a difference, all of which emerged as significant predictors. Service needs did not emerge as a significant predictor presumably because, if you have a service problem, attending governmental training will not look like a promising route to a solution. However, in
contrast to donations, encouragement from government, not from neighbors, also figures significantly in attendance. Perhaps residents may attend governmental sessions in part because government encourages that attendance, where they donate to community projects in part due to encouragement from neighbors.

- **Attending a court hearing and sharing positive feedback with a public service representative:** Both of these activities appear also to be more civic-oriented behaviors, with only (1) a sense of purpose and (2) a feeling of being able to make a difference emerging as significant motivators. As for personal service needs, courts seem an unlikely arena for addressing those needs, and someone feeling sufficiently appreciative to offer thanks seems unlikely to feel keenly in need at the same time. The uniqueness of these activities rests on the significance of age as a predictor, perhaps reflecting that older residents are more likely (1) to have the time to attend often lengthy court proceedings and (2) to take the time to share positive feedback.

- **Filing a complaint against a service agent via the Atlanta Citizen Review Board (ACRB):** The explanation here may lie in the mechanism itself. Government encouragement is the only significant personal motivation for complaining to the ACRB, suggesting that the availability of the ACRB option may be principally what encourages its use. As well, these complaints may reflect problems with a specific public official, not a particular service.

Finally, the two remaining coproduction activities fit none of the patterns or variations described above:
• **Patrolling one’s neighborhood:** The only significant predictors for this involvement were a few demographic characteristics: Blacks were far more likely than Whites, homeowners more likely than renters, and the less educated more likely than the more educated to join in this patrolling. As a possible explanation, the joiners could be more Black because areas with high non-White populations face greater threats of crime; they could be less educated because neighborhoods with high non-White populations tend to be less educated; and, they could also include more homeowners because homeowners have greater investments to protect. Service needs might not emerge as significant because residents may not view crime threats as service “needs.”

• **Attending city council meetings:** Attendance at city council meetings might have been expected to fit the political participation pattern, but the data say otherwise. A sense of purpose proved one significant predictor of this attendance, but that was the only predictor consistent with standard political participation. Otherwise, government encouragement appears to make difference; encouraging residents to come to council meetings may boost attendance. But encouragement from neighbors actually proves a significant inverse predictor, appearing to discourage council attendance.

CONCLUSIONS

With renewed interest in public service coproduction, questions have arisen about who in the public joins in coproduction and why. This research was designed to seek answers to those questions using original survey data on the involvement of neighborhood activists in
coproduction in the city of Atlanta, Georgia. In this concluding section we will briefly summarize the findings before considering their implications for theory and practice.

**Summary**

The findings showed first that these activists engage extensively in coproduction and in all its various forms. Attending non-NPU community-related meetings emerged as the most common coproduction involvement, reported by 79 percent of the respondents, but majorities also reported joining neighborhood cleanups, donating funds, attending NPU meetings, sharing opinions with elected officials, reporting suspicious activities, complaining about problem neighbors, reporting service malfunctions, and sharing positive feedback with a public service representative.

As for why they engage in these activities, respondents pointed to civic and social factors as more important than personal service needs. The strongest motivations by far, each voiced by a majority of respondents, were (1) they felt like they could make a difference, (2) they felt like it was their duty, and (3) it made them feel connected to their community. Smaller proportions reported being motivated by specific service needs.

The logistic regressions produced similar results, with nonmaterial psychological motivations proving more important in explaining coproduction involvement than were service needs. As expected, service needs did prove more important in explaining involvement in individual coproduction than in collective coproduction, while the opposite was the case for neighborhood attachments—more important for involvement in collective than individual coproduction.
Another perspective on why people join in coproduction comes from the findings on which demographic characteristics appear to affect that involvement. In particular, the finding of home ownership as a significant predictor of involvement in most forms of coproduction suggests that self-interest may play a larger role in this involvement than implied by the finding of a limited role for personal service needs. The significance of home ownership hints of another dimension to self-interest, the personal stake in a home, as a factor in joining in coproduction.

Similarly, the findings may also understate the significance of governmental encouragement as a factor in coproduction. To recall, the logistic regressions show governmental encouragement as a significant predictor only for attending City Council meetings, attending governmental training or information sessions, and filing a complaint against a public service agent. However, those findings overlook the likely foundational role of Atlanta’s Neighborhood Planning Units in much of the coproduction documented here. The affirmative action roots of the NPUs also likely underlie the greater involvement of African-Americans in some forms of coproduction. Together, those facts imply a pivotal role for Atlanta city government in spurring much of the resident role in coproduction in the city.

Implications

Returning to the larger theory questions raised at the start of this paper, the findings imply that involvement in coproduction has much in common with both political participation and citizen-initiated contacts. Like political participation, involvement in coproduction appears motivated substantially by feelings of personal efficacy, a sense of civic duty, and a sense of purpose and accomplishment. Like citizen-initiated contacts, coproduction involvement often
has roots in perceived personal service needs. In addition, involvement in collective coproduction looks more like political participation, while involvement in individual coproduction better resembles citizen-initiated contacting.

Yet, the questions of who engages in coproduction and why do not lend themselves to simple answers. As detailed above, the idiosyncratic nature of involvement in half of the forms of coproduction may be as striking as any general patterns. The reasons why residents join in patrolling neighborhoods or attending court hearings, as just two examples, are not readily explained by theories of either political participation or citizen-initiated contacting. Judging from these and other examples, the explanations for why people join in coproduction can vary enormously depending on what is being coproduced.

The various findings may hold important implications for public managers who wish to increase the public’s role in public service coproduction. First, managers should not look for a one-size-fits-all approach; different forms of coproduction appear to call for different strategies for engaging the public. However, second, managers may find that appeals to public service motivations—such as wanting to make a difference, having a sense of civic duty, or being driven by a sense of purpose or accomplishment—could spur more coproduction engagement than might appeals to personal self-interest (e.g., “help improve the services you use”). Public service motivations appeared to be much more important than personal service needs for the coproduction activities profiled here.

It may well be, though, that these appeals will carry more force when they are voiced in the context of community organizations, such as the Neighborhood Planning Units from which our sample was drawn. The legitimacy of those organizations for their members—many of
whom appear to value the social connections the organizations offer—may lend credibility to appeals voiced at their meetings, a credibility those appeals might lack if they came unmediated from government instead.

In the end, these possible implications should be viewed with caution since this research focused on only one city and on a more engaged segment of that city’s population. As that caution suggests, we need more studies of who joins in coproduction before we can reach conclusions and when and how to seek a greater public presence in coproducing public services.

REFERENCES


### Table 1. Respondent Characteristics (percentages)

<table>
<thead>
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<th>Category</th>
<th>Paper</th>
<th>Online</th>
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<th>2007 Atlanta Survey</th>
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<td>49</td>
<td>100 (N=797)</td>
<td>100 (N=600)</td>
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<td><strong>All others (Asian, Latino, etc.)</strong></td>
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<td>5</td>
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<td><strong>$0-$34,999</strong></td>
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<td><strong>75yrs + year olds</strong></td>
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<td><strong>Household w/ child under 18</strong></td>
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<td>Form of Coproduction</td>
<td>Co-Planning</td>
<td>Percent who engaged at least once a year</td>
<td>Co-Delivery</td>
<td>Co-Monitoring</td>
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<tr>
<td>Collective</td>
<td>Attended an Atlanta City Council meeting.</td>
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<td>Collective</td>
<td>Attended an NPU meeting in your community.</td>
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<td></td>
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<td>Collective</td>
<td>Attended your community association meeting (not NPU).</td>
<td>79%</td>
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<td>Collective or Individual</td>
<td>Clean streets, parks, or other public areas in the community.</td>
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<td>Collective or Individual</td>
<td>Patrol neighborhood with police officer or neighbors</td>
<td>26%</td>
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<tr>
<td>Individual</td>
<td>Attended training or info session.</td>
<td>46%</td>
<td>76%</td>
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<tr>
<td>Individual</td>
<td>Donate money for an event, facility, or project in the community.</td>
<td></td>
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<tr>
<td>Individual</td>
<td>Report suspicious activity in the community.</td>
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<td>Individual</td>
<td>Report potholes, streetlight outage, or other service malfunctions.</td>
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<tr>
<td>Action</td>
<td>Percentage</td>
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<td></td>
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<tr>
<td>-----------------------------------------------------------------------</td>
<td>------------</td>
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<tr>
<td>Report neighbors when they are noisy, messy, or violating other codes.</td>
<td>55%</td>
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<td>File complaint against service agent via Atlanta Citizen Review Board.</td>
<td>6%</td>
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<td>Share feelings about a policy or project concerning the community.</td>
<td>72%</td>
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<td>Thank or share positive feedback with public service representative.</td>
<td>51%</td>
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<td>Attended the court hearing of someone accused of committing a crime in the community (Court Watch Program).</td>
<td>26%</td>
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<td>Popularity (selected in top 3)</td>
<td>Importance (ranked as #1)</td>
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<td>Make a difference*</td>
<td>Personal Efficacy</td>
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<td>Sense of civic duty</td>
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<td>Other</td>
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<td>Everything is fine</td>
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<td>Not interested</td>
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Note: * Proxy for personal efficacy motivation
Table 4: Percentages of Respondents Who Coproduce by Demographic Characteristic

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<th></th>
<th>TOTAL SAMPLE</th>
<th>Gender</th>
<th>Race</th>
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<th>Education</th>
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<td>Cleaned Neighborhood</td>
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<td>Shared Opinions about Community Project/Policy with Elected Officials</td>
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<td>74</td>
</tr>
<tr>
<td>Reported Service Problems</td>
<td>63</td>
<td>64</td>
<td>63</td>
<td>70</td>
<td>59</td>
<td>67</td>
<td>61</td>
<td>68</td>
</tr>
<tr>
<td>Filed Complaint against Service Agent</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>12</td>
<td>2</td>
<td>11</td>
<td>3</td>
<td>14</td>
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<td>Event</td>
<td>51</td>
<td>54</td>
<td>49</td>
<td>60</td>
<td>44</td>
<td>55</td>
<td>48</td>
<td>56</td>
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<td>-------------------------------</td>
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<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Thanked Service Agent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attended Court Hearing</td>
<td>26</td>
<td>26</td>
<td>25</td>
<td>32</td>
<td>20</td>
<td>33</td>
<td>21</td>
<td>36</td>
</tr>
<tr>
<td>Attended Training or Info Session</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>60</td>
<td>35</td>
<td>54</td>
<td>40</td>
<td>54</td>
</tr>
</tbody>
</table>
Table 5. Participation in Collective Coproduction – Full Logistic Models (Odds Ratios)

<table>
<thead>
<tr>
<th>Service Provision/Quantity</th>
<th>Attended City Council Meeting</th>
<th>Attended NPU Meeting</th>
<th>Attended Other Community Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quality</td>
<td>1.02</td>
<td>1.10</td>
<td>1.09</td>
</tr>
<tr>
<td>Sense of Purpose</td>
<td>1.40***</td>
<td>1.30**</td>
<td>1.21</td>
</tr>
<tr>
<td>Make a Difference</td>
<td>1.14</td>
<td>1.45***</td>
<td>1.31***</td>
</tr>
<tr>
<td>Civic Duty</td>
<td>1.12</td>
<td>1.31***</td>
<td>1.28***</td>
</tr>
<tr>
<td>Government-Encouraged</td>
<td>1.68*</td>
<td>1.14</td>
<td>1.71</td>
</tr>
<tr>
<td>Connect with Neighbors</td>
<td>1.03</td>
<td>1.35***</td>
<td>1.26**</td>
</tr>
<tr>
<td>Neighbor-Encouraged</td>
<td>0.79*</td>
<td>1.19</td>
<td>1.55***</td>
</tr>
<tr>
<td>Everything is fine</td>
<td>0.93</td>
<td>0.93</td>
<td>0.84*</td>
</tr>
<tr>
<td>No time</td>
<td>0.77***</td>
<td>0.70***</td>
<td>0.94</td>
</tr>
<tr>
<td>Government’s job</td>
<td>0.97</td>
<td>0.89</td>
<td>1.05</td>
</tr>
<tr>
<td>Not interested</td>
<td>1.04</td>
<td>0.93</td>
<td>0.82*</td>
</tr>
<tr>
<td>Female</td>
<td>0.39***</td>
<td>0.38***</td>
<td>0.76</td>
</tr>
<tr>
<td>African-American</td>
<td>1.39</td>
<td>2.68***</td>
<td>1.13</td>
</tr>
<tr>
<td>Income</td>
<td>0.89</td>
<td>0.81**</td>
<td>1.19*</td>
</tr>
<tr>
<td>Education</td>
<td>0.83</td>
<td>0.85</td>
<td>0.81</td>
</tr>
<tr>
<td>Age</td>
<td>1.32***</td>
<td>1.21**</td>
<td>1.11</td>
</tr>
<tr>
<td>Child in HH</td>
<td>1.17</td>
<td>0.78</td>
<td>1.02</td>
</tr>
<tr>
<td>Renter</td>
<td>1.01</td>
<td>0.44***</td>
<td>0.52**</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.93</td>
<td>1.89</td>
<td>1.37</td>
</tr>
<tr>
<td>N</td>
<td>597</td>
<td>606</td>
<td>597</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.15</td>
<td>0.18</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Note: All standard errors were less than 1; *** p<0.01, ** p<0.05, * p<0.10
## Table 6. Participation in Individual Coproduction – Full Logistic Models (Odds Ratios)

<table>
<thead>
<tr>
<th></th>
<th>Respondents reported:</th>
<th>Respondents shared:</th>
<th>Respondents attended:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Code Violations</td>
<td>Suspicious Activities</td>
<td>Service Problems</td>
</tr>
<tr>
<td>Service Quantity</td>
<td>1.44***</td>
<td>1.28*</td>
<td>1.43***</td>
</tr>
<tr>
<td>Service Quality</td>
<td>1.26**</td>
<td>1.07</td>
<td>1.43***</td>
</tr>
<tr>
<td>Sense of Purpose</td>
<td>1.23**</td>
<td>1.18</td>
<td>1.32***</td>
</tr>
<tr>
<td>Make Difference</td>
<td>1.26***</td>
<td>1.33***</td>
<td>1.17*</td>
</tr>
<tr>
<td>Civic Duty</td>
<td>1.32***</td>
<td>1.39***</td>
<td>1.25***</td>
</tr>
<tr>
<td>Gov’t-Encour</td>
<td>1.30**</td>
<td>1.61</td>
<td>1.61</td>
</tr>
<tr>
<td>Connect w/ Ngbr</td>
<td>0.96</td>
<td>1.01</td>
<td>1.11</td>
</tr>
<tr>
<td>Neighbor-Encour</td>
<td>0.84</td>
<td>0.93</td>
<td>0.96</td>
</tr>
<tr>
<td>Everything is fine</td>
<td>0.71***</td>
<td>0.88</td>
<td>0.77***</td>
</tr>
<tr>
<td>No time</td>
<td>0.84**</td>
<td>0.89</td>
<td>0.81***</td>
</tr>
<tr>
<td>Government’s job</td>
<td>0.99</td>
<td>1.39*</td>
<td>1.14</td>
</tr>
<tr>
<td>Not interested</td>
<td>0.86</td>
<td>0.88</td>
<td>0.97</td>
</tr>
<tr>
<td>Female</td>
<td>0.72*</td>
<td>0.69*</td>
<td>0.96</td>
</tr>
<tr>
<td>African-American</td>
<td>1.20</td>
<td>1.11</td>
<td>0.91</td>
</tr>
<tr>
<td>Variable</td>
<td>Estimate</td>
<td>Std. Error</td>
<td>t-Value</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>------------</td>
<td>---------</td>
</tr>
<tr>
<td>Income</td>
<td>0.55**</td>
<td>0.87</td>
<td>0.97</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>0.97</td>
<td>0.83</td>
</tr>
<tr>
<td>Age</td>
<td>1.17**</td>
<td>1.06</td>
<td>1.22***</td>
</tr>
<tr>
<td>Child in HH</td>
<td>0.85</td>
<td>1.42</td>
<td>1.16</td>
</tr>
<tr>
<td>Renter</td>
<td>0.52**</td>
<td>0.60*</td>
<td>0.41***</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.89</td>
<td>1.91</td>
<td>0.79</td>
</tr>
<tr>
<td>N</td>
<td>605</td>
<td>605</td>
<td>605</td>
</tr>
<tr>
<td>R^2</td>
<td>0.12</td>
<td>0.08</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Note: All standard errors were less than 1; *** p<0.01, ** p<0.05, * p<0.10
Table 7. Participation in Either Collective or Individual Coproduction – Full Logistic Models (Odds Ratios)

<table>
<thead>
<tr>
<th></th>
<th>Cleaned/Maintained Community Facilities</th>
<th>Patrolled Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quantity</td>
<td>1.24</td>
<td>0.93</td>
</tr>
<tr>
<td>Service Quality</td>
<td>1.41***</td>
<td>1.06</td>
</tr>
<tr>
<td>Sense of Purpose</td>
<td>1.83***</td>
<td>1.13</td>
</tr>
<tr>
<td>Make a Difference</td>
<td>1.25**</td>
<td>0.97</td>
</tr>
<tr>
<td>Civic Duty</td>
<td>1.30***</td>
<td>1.02</td>
</tr>
<tr>
<td>Government-Encouraged</td>
<td>0.75</td>
<td>0.93</td>
</tr>
<tr>
<td>Connect with Neighbors</td>
<td>1.30***</td>
<td>0.98</td>
</tr>
<tr>
<td>Neighbor-Encouraged</td>
<td>1.12</td>
<td>0.94</td>
</tr>
<tr>
<td>Everything is fine</td>
<td>0.80**</td>
<td>0.86</td>
</tr>
<tr>
<td>No time</td>
<td>0.96</td>
<td>0.95</td>
</tr>
<tr>
<td>Government’s job</td>
<td>0.90</td>
<td>1.15</td>
</tr>
<tr>
<td>Not interested</td>
<td>0.92</td>
<td>0.68***</td>
</tr>
<tr>
<td>Female</td>
<td>0.73</td>
<td>0.84</td>
</tr>
<tr>
<td>African-American</td>
<td>0.81</td>
<td>1.71***</td>
</tr>
<tr>
<td>Income</td>
<td>0.85</td>
<td>0.92</td>
</tr>
<tr>
<td>Education</td>
<td>0.78*</td>
<td>0.74**</td>
</tr>
<tr>
<td>Age</td>
<td>1.03</td>
<td>0.93</td>
</tr>
<tr>
<td>Child in HH</td>
<td>1.11</td>
<td>0.75</td>
</tr>
<tr>
<td>Renter</td>
<td>0.46***</td>
<td>0.25***</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.19</td>
<td>1.55</td>
</tr>
<tr>
<td>N</td>
<td>605</td>
<td>600</td>
</tr>
<tr>
<td>R^2</td>
<td>0.08</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Note: All standard errors were l; *** p<0.01, ** p<0.05, * p<0.10
Abstract: Citizen coproduction entails the joint production of government services by public employees and citizens. Knowing why citizens coproduce can enable public managers to better design programs for recruiting citizens and improve managerial practices for sustaining citizen involvement. However, once citizens become involved in coproduction, the question of why some citizens are more active than others has yet to be explored in further detail. This study seeks to address this gap by analyzing a South Korean survey of local residents’ involvement in citizen patrols within a large metropolitan city. The findings indicate that greater frequency of coproduction behavior is largely associated with motivations concerning expressive benefits, self-efficacy, community conditions, and social cohesion. In addition to enhancing our understanding of how different motives operate at different levels of activity, the study provides a contribution by investigating coproduction processes in a different national and contextual setting.
Introduction

By incorporating citizens in the delivery of public services, governments have the potential to generate a number of benefits such as fiscal savings, improvement in service quality, and greater legitimacy of government (Needham 2008). Without citizen coproduction, governments may not be able to provide services to the fullest extent while citizens may not thoroughly enjoy the benefits of public services. Citizen involvement can occur through government initiatives or by citizens commencing formal activities themselves (Jakobsen 2013; Percy 1978). However, scholars have pointed out that even with government efforts to engage a broader range of citizens, only a small number or a particular set of citizens respond to such initiatives (Van Eijk and Steen 2016). Thus, the question of why citizens coproduce is important as this allows for governments to design programs that can recruit citizens for coproduction or improve existing programs. But once citizens become involved in coproducing services, a subsequent question becomes why are some citizens more active than others. The task of getting citizens involved in the first place is somewhat different from the task of designing programs that encourage them to be more active. The former pertains to matters of advertising and recruitment, while the latter concerns issues of long-term sustainability and ongoing management of existing programs. However, empirical research into this latter aspect of motivations is still limited, and this study seeks to address this gap by exploring the factors that influence coproduction behaviors at different levels of activity using a large-sample survey from a South Korean metropolitan city. This survey
contains information about local residents who participate in voluntary citizen patrols (Jayool Bhangbeomdae) registered under police agencies, thereby enabling an investigation of the question of why some citizens are more active than others. Although there is some debate as to whether volunteering can be considered coproduction as citizens are not direct service users (Pestoff 2010), this study adopts the viewpoint that volunteers represent citizens who deliver services on behalf of others (Bovaird and Loeffler 2013). Citizens are involved in a more organized and institutionalized capacity, and coproduction “results in collective goods whose benefits may be enjoyed by the entire community” (Brudney and England 1983, 64).

On the one hand, most recent empirical studies on motivations to coproduce have been conducted in Western settings such as Europe and the United States (i.e., Parrado et al. 2013; Van Eijk and Steen 2014). Therefore, the shift in geographic setting to an East Asian country may complicate a precise comparison of coproduction with Western countries. In addition, the culture of collectivism reflected in East Asia displays a stronger tendency towards solidary or community motives (Choi and Lee 2016). On the other hand, during the past thirty years, public administration scholarship in Korea has been heavily influenced by Western scholarship, and this is reflected in recent South Korean coproduction scholarship as well as government policymaking with respect to incorporating citizens in public service delivery. For instance, scholars have borrowed from themes such as community-oriented policing, social control theory and coproduction to examine alternative policing strategies (Choi 2001; Jung 1994; Kim 1997; Son 2007). From this perspective, this study can provide a contribution to the coproduction literature by enabling scholars to garner insight into coproduction processes in a different national and contextual setting.
This study is organized as follows. The next section reviews the literature on motivations to coproduce, followed by a description of the empirical setting, data and methods for the current study. The study then proceeds to analyze the data and present the findings. The study concludes with implications for practice and future research.

The Question of Motives

The coproduction literature draws from a number of disciplines to explain motives behind why citizens coproduce. An economic line of argument inspired by public choice theory argues that citizens are driven by self-interest in which they participate if the benefits outweigh the costs (Parks et al. 1981). This suggests that citizens coproduce because of extrinsic or material rewards such as monetary compensation, acquisition of new skills, or non-monetary benefits such as enhanced service levels. Meanwhile, scholars have suggested reasons beyond self-interest for why citizens coproduce. In their discussion about the ways to mobilize citizens, Rosentraub and Sharp (1981) suggest three types of incentives consisting of material, solidary, and expressive motives. Material or extrinsic incentives include tangible benefits such as money and goods or non-tangible benefits such as greater level of services, solidary incentives entail benefits enjoyed by associating with others or having a sense of group membership, and expressive incentives are intangible rewards that rely on altruism or a sense of satisfaction. They argue, however, that no single incentive is dominant in any situation but that the most effective type of incentive “depends on the form of coproduction being promoted” (1981, 535). For instance, material incentives generally apply to individualistic forms of coproduction, whereas collective action relies
more on expressive incentives. Solidary incentives can be applied to both types of coproduction.

Volunteerism is a major related stream of research on motivations behind public or non-profit volunteering activities (Brudney 1989; Smith 1994). This stream has generally emphasized the importance of altruistic or egoistic motivations underlying voluntary efforts (Dekker and Halman 2003; Reed and Selbee 2003; Steen 2006). However, some have noted how volunteers are fundamentally different from citizens and clients in terms of their motives (Alford 2002). Volunteers work for the benefits of others, while citizens or clients are often the users of the public services and benefit personally from them, especially in the case of clients. This implies that self-interest is one major motive behind coproductive behaviors. Alford (2002) expands upon these different motivations behind citizens, volunteers, and clients. For instance, citizens’ motivations are drawn from the work by Rosentraub and Sharp (1981) described above. Volunteers’ motivations are drawn from the volunteering literature such as Clary et al. (1996; 1998) who classify six categories of psychological functions consisting of values, understanding, enhancement, career goals, social and protective motivations. Finally, theory about customer or client motivations comes from the marketing literature to argue that clients are not only driven by material benefits, but also intrinsic rewards such as self-esteem and external sanctions from legal obligations.

Some researchers have cited themes concerning government-citizen relations, citizen participation, and active citizenship that focus on the capacities of individuals to act (Van Eijk and Steen 2014). As coproduction is a kind of engagement with society, the argument is that there are similarities in the motivations of citizens for engaging in other
ways with society. From these literatures, scholars have examined socioeconomic variables (Sharp 1984; Timpone 1998), networks (Amna 2010; Putnam 1993), salience (Pestoff 2012), self-efficacy (Kristensen, Andersen, and Pedersen 2012; Parrado et al. 2013), and trust (Fledderus and Honingh 2016). Salience refers to the importance of the service provided, and the idea is that citizens consider the impact that it has on their life and will determine whether efforts are worth investing in participation. Self-efficacy entails the belief that one’s actions can lead to positive results. Internal efficacy points to an individual’s perceptions about his or her competencies to understand and to engage effectively in order to produce positive results, while external efficacy concerns the belief in which one’s actions can potentially influence decision-making and service provision by governmental authorities and institutions. Finally, trust is another factor. If citizens perceive government to adequately delivers services and provide opportunities to meaningfully engage, levels of trust are likely to be enhanced. Meanwhile, trust can also be linked with government performance (Parrado et al. 2013). This is generally considered a positive factor and is both a consequence and determinant of government performance (Van Ryzin 2007; 2011). Greater trust means that citizens are satisfied with government service provision, while greater distrust is reflective of poor government performance, which can incentivize citizens to resort to alternative service delivery arrangements such as coproduction. For instance, policing studies have argued how African-Americans tend to be less satisfied with police services and so they are more likely to pursue police reforms and more willing to engage in community initiatives (Wehrman and Angelis 2011).

Van Eijk and Steen (2014) point out that the concept of public service motivation (PSM) also has the potential to contribute to an understanding of citizens’ motivations for coproduction due to its relation to community-centered motivations. Since the concept
focuses on motivations grounded in the public interest, or “an individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations” (Perry and Wise 1990, 368), scholars have used PSM to analyze public sector employees’ participation not only in official duties as formal employees but also in informal civic activities (Brewer 2003; Pandey et al. 2008; Perry and Hondeghem 2008). The PSM literature has developed a significant amount of research concerning the motivation of public servants, but such research has not been extensively applied to the public service motivation of citizen coproducers. Nonetheless, recent scholars such as Van Eijk and Steen (2014; 2016) have discussed PSM as “community-oriented, pro-social” behaviors which enable citizens to assume greater responsibilities in the public domain.

In addition to individual motivations, conditions can either facilitate or hinder coproduction (Verschuere, Brandsen and Pestoff 2012). These include transaction costs, such as ease of involvement, and level of salience, such as perceptions of crime that prompt citizens to participate (Pestoff 2012). In many cases these are necessary conditions in which, before motivations are put into practice, attention should be paid to the possibility of becoming involved in the first place. If citizens do not perceive coproduction to be easy enough or if the activity is deemed unimportant, they will not consider participating.

These different but related streams of literature provide information on several common themes that assist in explaining individuals’ motivations to engage in coproduction including intrinsic, extrinsic, expressive, solidary, PSM, salience, and self-efficacy related factors. In addition, capacity relates to both human capital, such as income and education, and social capital, such as belonging to a network. In turn, human and social capital can be expected to influence how citizens determine the salience of engagement and to judge their
level of efficacy concerning participation. Before proceeding, however, recall that the empirical case for this study involves citizen volunteers who are part of a formal public organization. Because of the different motivations among citizens, clients, and volunteers to coproduce, one might question whether the factors identified in this section can apply to volunteers. However, while it is generally assumed that altruistic motives are largely behind the reasons for volunteering, different policy areas attract different individuals for varying reasons. For instance, in public safety, Siegel and Sundeen (1986) find that higher incidence of crime is a critical motivator for citizens to volunteer in municipal police departments, while Ren et al. (2006) find that citizens’ perception of crime problems in their neighborhood is a significant predictor for volunteering in police work. These studies suggest that volunteers are motivated by more than mere altruism and are driven by factors that affect participants directly i.e., concern for safety or fear of crime. In short, volunteers may not be direct services users, but this does not mean they are not involved in jointly producing a public service.

Meanwhile, another limitation is that coproducive interactions occur between citizens and professionals, while classical voluntarism does not always take place in similar professionalized service delivery environments. However, the focus of this study is on volunteers who participate in a public organizational capacity, and prior studies have explored the significance of coproduction theory within the context of public sector volunteering (Brudney and Warren 1990; Sundeen 1990). While the primary beneficiaries are the clients served through government services, volunteers are still coproducing in the sense that these are citizens who deliver services on behalf of others (Bovaird and Loeffler 2013; Brudney 1990). In short, citizens are coproducers who choose to volunteer, namely, to coproduce in a more formal and organized capacity. Therefore, this study assumes that
the motivations cited above can apply to volunteers, just as they apply to citizens and clients.

**Coproducing Public Safety**

Prior studies concerning citizen motivations to coproduce in public safety have identified variables such as fear of crime, perception of victimization, and prior experience with crime to be associated with a greater tendency to engage in coproduction (Percy 1987; Rosentraub and Sharp 1981; Rosentraub and Harlow 1983; Rosentraub and Warren 1987). These studies have tended to measure individual coproduction activities such as installing alarms or locks, purchasing personal safety weapons, installing property identification signs, and attending meetings. Studies at the organizational level examine a number of factors pertaining to socio-economic and demographic factors that affect individuals to volunteer in general (Ferris 1988; Siegel and Sundeen 1986; Sundeen 1988). Studies using individuals as the unit of analysis find that gender and perceptions of crime problems are significantly associated with volunteering (Ren et al. 2006).

Meanwhile, citizen patrols have been identified as a type of group or organized coproduction activity where citizens cooperate directly with police agencies to engage in patrol or other crime prevention activities (Percy 1978). While patrol groups independent organized by citizens are less common in the United States, a similar form of organized coproduction involves volunteer police officers working in reserve/auxiliary programs established within formal police organizations (Dobrin and Wolf 2016). Empirical studies on the motivations to coproduce as volunteer officers are limited, but studies have explored the different characteristics of individuals who volunteer. Wolf, Holmes and Jones (2016)
identify three major subgroups of volunteers in policing programs consisting of those who wish to gain the training and experience necessary to apply for full-time positions, retired officers who continue to maintain a presence in the organization, and individuals who view volunteer policing as an avenue of community service. While these provide information about who volunteers for law enforcement work, research is limited on what drives these individuals to be involved in the first place or coproduce more actively than others within these organized capacities. The next section turns to the empirical data and analysis to address this issue in more detail.

Data and Methods
Voluntary Citizen Patrols in South Korea

This section examines a form of collective coproduction in the context of an East Asian nation. In South Korea, voluntary citizen patrols represent an important form of coproducing public safety where local residents join patrol units registered under local police agencies (Chun 2005; Lee 2001; Lee and Hwang 2009; Lee 2012). On the one hand, while the differential geographic setting complicates a precise comparison of coproduction with Western nations, during the past thirty years, public administration in Korea has been heavily influenced by Western scholarship. This has impacted Korean coproduction scholarship as well as government policymaking with respect to incorporating citizens in public service delivery. Scholars have borrowed from topics such as Community-Oriented Policing, Social Control Theory and Coproduction to examine alternative policing strategies (Choi 2001; Jung 1994; Kim 1997; Son 2007). Furthermore, the heated debates during the recent 17th (2004-2008), 18th (2008-2012), and 19th (2012-2016) National Assembly
sessions concerning the Voluntary Citizen Patrol Bill, as well as the adoption of local Citizen Patrol ordinances by more than 90 municipalities across the country, attests to the increasing challenges and opportunities to manage citizen volunteers in public safety.

In 2012 there were an estimated 3,917 citizen patrol organizations with 100,517 active members (Min 2014). Beginning in 2009, local governments across the country began instituting ordinances to provide funding and other assistance for voluntary crime prevention activities, and as of 2015 more than 90 municipalities have some form of regulation in place.\(^1\) Table 1 shows the number of citizen patrol organizations, volunteers, and the amount of local government funding according to major metropolitan city or province in 2012. Table 2 illustrates the contribution of citizen patrol activities to law enforcement performance, which demonstrates the extent to which citizens are coproducing public safety.

(Insert Table 1 here about here)

(Insert Table 2 here about here)

The origins of citizen patrols date back to the aftermath of the Korean War in which local residents were mobilized to supplement regular police forces in subduing communist insurgents (Oh 2000). Afterwards, for several decades, citizen patrols continued to exist in various forms throughout different localities to serve the purpose of crime prevention. Due to the lack of centralized management or support, however, there is no data collected on their numbers or their exact form of organization. It was not until the South Korean government’s “War Against Crime” policy in 1990 that policing and criminal justice
advocates raised the need for more effective management of citizen-participatory crime prevention groups, and in 1996 the Korea National Police Agency issued the Voluntary Crime Prevention Patrol Guidelines (*Jayul Bhangbeomdae Gwali Jichim*) to formalize the management and operation of voluntary patrols within police organizations (Hwang 2011). At present, each of the provincial police headquarters maintain Voluntary Crime Prevention Patrol directives that contain guidelines on the organization of citizen patrols, mission and tasks, recruitment and dismissal, training and education, uniforms and equipment, and rewards or incentives. Implementation of these directives may vary according to localities. Meanwhile, beginning in 2009 municipalities across the nation began enacting local regulations to manage citizen patrol organizations. Alongside patrolling of high crime risk areas, citizen patrols engage in various types of activities such as teen delinquency prevention, monitoring of infractions such as littering or public intoxication, assisting in traffic control, snow removal and street maintenance. It is within this context that this study examines citizens’ motivations to volunteer in citizen patrols. One point to consider is that this unique geographic setting may render it difficult to directly apply the aforementioned theories on coproductive motivations. In particular, Choi and Lee (2016) find that citizen participation in community safety in South Korea is largely driven by community values such as social harmony and cohesion based on the culture of collectivism reflected in East Asian countries. Therefore, we would initially expect to find a greater disposition towards solidary motives rather than individual reasons for volunteering. While this assumption may hold true in general, however, this predisposition may be intensified due to social desirability bias in which individuals in collectivistic societies answer in a more socially desirable manner that overemphasize the solidary aspects of participation (Kim and Kim 2016). Nonetheless, in practice individual motives may operate at different levels of
activity. For instance, those who participate more frequently than others may do so for other reasons such as being a prior victim of crime or retaining a greater desire to contribute to public safety. However, these motivations may not be readily apparent in self-reported measures, and so the empirical section below proceeds to explore these underlying motivations through the analysis of coproduction behaviors operating at different levels.

Data and Measures

To examine the question of why some citizens coproduce more actively than others, data are derived from the 2005 Survey of Local Residents’ Participation in Citizen Patrols administered by the Korean Institute of Criminology (KIC), a government research institute, and are available from the Korean Social Science Data Archives (KOSSDA). The survey contains a variety of questions about the status of citizens’ participation in local voluntary citizen patrol units. In addition, demographic information such as gender, age, level of education, marital status, number of children, type of residence, type of neighborhood, length of residence, and occupation are included. This is a one-time cross-sectional survey administered across 31 police departments within the city of Seoul, South Korea. The unit of analysis is at the individual level, and respondents’ characteristics consist of citizens who are existing members of citizen patrol units. The final sample size consists of n=450. One cautionary note is that since the citizen patrol units are formally registered under police departments, sampling bias may be inherent in which the characteristics of the respondents differ from the general volunteer population where individuals volunteer in diverse settings with differing requirements.
Concerning the dependent variable, the survey asks respondents about the degree of participation. Specifically, it measures the frequency of engaging in patrol activities on average, and response categories include: less than once a month, once a month, once every 15 days, once a week, twice a week, and every day (coded from 1 = less than once a month to 6 = every day). This measures a coproduction behavior and is not tied to specific perceptions, meaning it is not a perceptual outcome measure and so the potential for common source bias is lower (Meier and O’Toole 2013). Since the measure is ordinal in nature, ordered logit regression is used to estimate the model. The structural model for an ordered logit (or proportional odds model) is specified by the following equation:

\[ Y^*_i = \sum_{k=1}^{K} \beta_k X_{ki} + \varepsilon_i \]

The model can be expressed in terms of probabilities as follows:

\[ \text{Prob}(Y_i = j) = \frac{e^{\chi_i \beta \cdot K_{j-1}}}{1 + e^{\chi_i \beta \cdot K_{j-1}}} \]

Where \( \text{Prob}(Y_i = j) \) is the probability that individual \( i \) will select alternative \( j \), \( \chi_i \) is the vector of questions exploring motivations, and \( K_{j-1} \) indicates the response thresholds. Since the respondents are citizens involved in an existing coproduction activity, the six categories measuring the frequency of participation allow for an investigation of different motives operating at different activity levels. Based on prior literatures concerning citizen motivations, the independent variables were selected from questions that garner
information about the following motivational categories: material, expressive, solidary, PSM, self-efficacy, salience, and satisfaction with government performance. Capacity is reflected in the control variables.

First, pertaining to underlying motives for participating in citizen patrols, the survey asks: “What is the initial reason that you became involved in citizen patrols?” Four sub-items that tap into these motivations were selected: (1) to protect the physical safety of myself and family members (material); (2) to socialize with local residents (solidary); (3) to ensure the safety of my community (expressive); and (4) to assist local police activities (PSM). Response categories for each of these sub-items include: strongly disagree, somewhat disagree, agree on average, and strongly agree (coded 1= strongly disagree to 4= strongly agree). Ensuring community safety may have some overlap with PSM, but is categorized as an expressive motive since “to assist local police activities” is a more specific item tied to the activities of assisting police agencies.

Second, in terms of self-efficacy, the survey asks: “What kind of influence do you expect the citizen patrol activities to have in your community?” The following two sub-items were selected: (1) decrease in community crimes; (2) improved relationship between community residents and the police. For each of these sub-indexes, response categories include: strongly disagree, somewhat disagree, agree on average, and strongly agree (coded 1= strongly disagree to 4= strongly agree).

Third, in terms of the conditions that affect the level of salience for citizens, the survey asks: “Please rate the degree of severity of crime problems in our country.” Response categories are: not severe at all, somewhat severe, average, moderately severe, and very severe (coded from 1= not severe at all to 5= very severe). Another question includes: “Have
you been a victim of crime during the past 2 years?” (coded 0 = no, 1 = yes). These two questions relate to the salience of becoming involved in citizen patrols.

Fourth, the survey contains a question pertaining to satisfaction/dissatisfaction with government performance, which asks: “Do you think police activities are sufficient to prevent crime?” Response categories are: very insufficient, somewhat sufficient, moderately sufficient, and highly sufficient (coded from 1= very insufficient to 4= highly sufficient). In some ways, this taps into the level of citizen trust in police performance.

Finally, coproduction behavior will vary by demographic and socio-economic factors that affect individual capacities to participate. The analysis includes information about age, level of education, presence of children, home ownership, and length of residence. Other key control variables such as crime rate are not included because these data are unavailable at the district (Gu) level in which police departments are located. Crime rate is only available on an aggregated basis for the city of Seoul. Gender is also excluded from the analysis as nearly 94 percent of respondents are male.

Analysis and Results

The numbers in the descriptive statistics in table 3 are relative frequencies based on Likert scales for each of the variables. Prior to conducting the ordered logit regression analysis, we first examine the summary of the descriptive responses to each of the survey measures for a better understanding of the attitudes of citizen patrol members and to compare with the ordered logit results later on. First, a breakdown of the frequency of volunteering shows that nearly 70 percent of members respond that they engage in citizen patrol activities at least more than once a week (table 4).
The survey contains a separate question asking what is the single main reason for being currently active in citizen patrols (table 5). This is a different question from the sub-items containing Likert scales about the variations in frequency of involvement in citizen patrols. Among the respondents, around 50 percent state they are active because they like to socialize with other patrol members, while nearly 21 percent answered they got to know other local residents and police officers better. Only about 10 percent state they participate for reasons concerning community safety, and 7 percent said they volunteer for general reasons. In short, nearly 70 percent of respondents answered that they are actively involved for solidary reasons, suggesting that respondents tend to hold solidary dispositions for participating in citizen patrols within the South Korean context. However, their statement about why they are active is a self-reported measure and is not reflective of actual behavior. The ordered regression analysis conducted below seeks to explore the underlying actual behaviors.
Meanwhile, about 76 percent of members responded that they think crime problems are either moderately severe to very severe (table 6), while nearly 70 percent of respondents felt that police activities were either somewhat insufficient or very insufficient to prevent crime (table 7). However, only 12 percent said that they were a victim of crime during the past two years (table 8). The responses from these three tables suggest that perceptions of crime have more influence than do actual experience with crime victimization.

Finally, in terms of the demographic variables, the average age is about 46 years old, average education level is high school graduate, majority of members have children, most members own homes, and the duration of residence is about 15 years.

For the ordered logit regression, to reiterate, the dependent variable concerns the frequency of participating more or less actively in citizen patrol activities. The ordered logit assumes that all of the coefficients on the independent variables are equal for every category of the dependent variable and that the slopes of the estimated equations are
identical. This is referred to as the proportional odds (parallel equation) assumption and can be tested using a Brant’s test or a likelihood ratio test. The test found a nonsignificant p-value, meaning that the proportional odds assumption has not been violated. Table 9 reports the results of the frequency of participation ranging from 1=less than once a month to 6=every day. Because the estimated coefficients cannot be interpreted in the same manner as linear regression results, the percentage change in odds ratios are also reported for each of the independent variables. A higher percentage change in the odds ratios indicates a higher likelihood of the independent variable being associated with higher scores on the 1 to 6 categorical scale of response substance. As mentioned before, the predictors explore the following motivations consisting of solidary, material, intrinsic, expressive, PSM, self-efficacy, salience, and satisfaction with government performance.

(Insert Table 9 about here)

First, concerning key incentives such as solidary, material, expressive and PSM motives, the item for to ensure community safety is statistically significant, and indicates that a one-unit increase in this scale increases the odds of participating more frequently by 44.89 percentage points (p<.05). This finding contrasts with the self-reported responses in table 5 which showed that more than 70 percent state they are currently active for solidary reasons. Rather, the ordered logit estimates reveal that expressive benefits such as the desire for greater community safety underlie motivations for greater frequency of participation. Also, assisting in local police activities is statistically significant, but the decrease in the odds ratio by 17.89 percentage points shows that PSM is less of a driver for greater frequency of participation. However, this is not to devalue the importance of PSM as a critical incentive for engaging in public service, but rather suggests that greater frequency
may be related to a dissatisfaction with current formal police activities and that citizens may have a desire to invest more personal efforts rather than rely on police activities to enhance service quality.

In terms of self-efficacy, the expectation for decrease in community crimes indicates that a one-unit increase in this scale increases the odds of greater frequency of participation by 103.61 percentage points. However, improved relationship between residents and police reveals that a one-unit increase in this scale decreases the odds of greater frequency of participation by 19.61 percentage points. These findings suggest that more active participation is associated with the expectation that participants’ actions will result in enhanced service qualities such as improved community safety rather than solidarity benefits.

Meanwhile, concerning crime conditions, the degree of severity of crimes shows that a one-unit increase in this scale increases the odds of greater frequency of participation by 23.64 percentage points, suggesting that salience is a pertinent motivation for active participation. However, being a victim of crime during the past two years is not statistically significant, confirming the assumption that perceptions about crime is more relevant to participation than actual experience with crime.

Finally, among the statistically significant control variables, the presence of children shows a decrease in the odds ratio by 73.52 percentage points, suggesting that having children acts as a constraint which decreases the likelihood that members spend more time in citizen patrols. However, homeownership and duration of residence reveal an increase in the odds ratio by 29.38 and 2.84 percentage points, respectively, indicating that as
homeownership rises and the longer duration of residence in a community, the higher likelihood of participating more frequently in citizen patrols.

While the ordered logit regression uses the ordered nature of the dependent variable to derive a single effect for each of the independent variables, thereby simplifying the model, there is the possibility that the constraints may vary according to the individual responses since the ordinal categories consist of arbitrary cutoffs and are not spaced equally. To account for this limitation, the marginal effects are reported in table 10 for each of the six categories of the dependent variable to examine the changes in probabilities when the independent variables increase by one unit.

(Insert Table 10 about here)

The marginal effects confirm the ordered logit results in that lower categories (i.e., 1, 2, and 3) display opposite effects from that of higher categories (5 and 6). For example, for the measure to ensure community safety, the changes in probability for those who participate less frequently in citizen patrols (2 and 3) reveal a decrease in percentage points by 0.03 and 0.041, respectively, whereas those who are more active (5 and 6) experience an increase in percentage points by 0.058 and 0.012. For the variable assist in local police activities, the changes in probability for those who participate less frequently in citizen patrols (2 and 3) display an increase in percentage points by 0.016 and 0.022, compared to the decrease in percentage points by 0.031 for those who are more active (5). These relationships hold constant for the other statistically significant variables including decrease in community crimes, improved relationships between residents and police, degree of severity of crime, presence of children, homeownership, and duration of residence.
Discussion and Conclusion

This study explores the question of why some citizens coproduce more actively than others using empirical data containing information about citizens who volunteer in a collective coproduction activity. The results of the ordered logit regression enable an empirical analysis of motivations that operate at different levels, or frequency, of participation in citizen patrols.

Concerning several key incentives such as material, solidary or expressive motives behind participation, *expressive* motives are closely associated with greater frequency of participation. Originally from the self-reported question that asks what is the single main motivation for being active, an overwhelming proportion of respondents had stated that the main reason for being active in citizen patrols consist of socializing with patrol members and other members of the community and police. However, the ordered logit results indicate that greater frequency of participation is explained by expressive motives such as contributing to greater community safety. In addition, from the self-efficacy category, the results suggest that the belief that their involvement can lead to a reduction in community crimes explains greater frequency of participation. From the community conditions category, as perceptions about the severity of crime increase, citizens are more active. These three findings indicate that the greater frequency of engaging in coproduction is largely driven by motives that pertain to expressive motives in terms of broader community safety rather than solidary motives such as socializing with others. This means that citizens who are more active are driven by a desire that focuses on the core of the service itself, that is, to contribute to public safety. In the context of social desirability bias, this is an important
finding that shows how individuals in collectivist societies are more likely to engage in socially desirable responses, but that the underlying motivations driving actual behaviors may be quite different.

However, this is not to devalue the importance of solidary incentives. Greater frequency of coproduction behavior may be contingent upon the desire to achieve expressive benefits, but as observed from the self-reported measure about the main reason for being currently active, motivations are mutually supportive in that solidary motives could act as a key preservation force for expressive motives, particularly if an organization consists of a volunteer workforce. If members do not support each other through solidary mechanisms and some feel left out or there is conflict among members, then expressive benefits alone cannot sustain organizational involvement in the long term.

Meanwhile, assisting in local police activities which reflects PSM is associated with less frequency in participation. However, this is not to say that PSM is less of an important driver for those who participate more frequently in public services. Rather, viewed from the perspective of dissatisfaction with current police activities, whether it be based on subjective perceptions or actual experience with police services, this dissatisfaction may rather be a reflection of an increase in PSM if we interpret this as influencing individuals’ desire to invest greater personal efforts to enhance service quality rather than rely solely on police activities. Initially, PSM was linked with assisting in local police activities since it is tied to a more specific task of contributing to local police efforts. But as mentioned before, there is significant overlap between PSM and expressive motives on the grounds that both ensuring community safety and assisting in local police activities contain elements of working towards the public interest and generally involve collective action. Future research
could address this issue by devising measures that more clearly distinguish between these nuances among motivations.

Examining the concept of *salience* in more detail, from the self-efficacy category, citizens who believe that participation can generate a decrease in community crimes display a greater frequency of participation. In addition, from the community conditions category, those who perceive crime problems to be more severe are more likely to engage more frequently. This attests to the role of perceptions about crime rather than actual experience with crime victimization in motivating citizens to actively participate. It confirms the notion that salience of the service is a significant motivating factor, and more broadly, suggests the importance of information distribution and raising awareness about how citizen input matters (Thomsen and Jakobsen 2015).

Finally, the significance of several control variables such as the presence of children, homeownership, and duration of residence confirm prior studies about volunteering in general. The results indicate that the presence of children can function as a constraint which increases the opportunity cost of time, and therefore those who have children will participate less frequently. Meanwhile, homeownership and duration of residence confirms notions about social cohesion and stability. Low levels of mobility can instill a sense of attachment and enhance social cohesion, providing an incentive to be involved in community affairs and to volunteer in coproduction initiatives (Marschall 2004). The results of this study provide further indication that community cohesion and stability can increase the degree to which citizens participate more actively.

Several methodological shortcomings require mentioning. One limitation is that the results are confined to the realm of law enforcement and public safety, and so one should
be cautious in generalizing the results to other service domains. For example, due to the high risk nature of law enforcement services, the majority of citizen patrol members consist of males, whereas other public services such as childcare or domestic violence prevention may target women. In addition, since the responses are derived from members involved in an existing activity, non-participants are not included so that the responses may be biased. For instance, participants may be driven by certain types of motivations unique to citizen patrols. Second, the study is conducted in a non-Western setting, limiting the scope of findings to South Korea, and in particular, to a single metropolitan city. The cultural tendency towards collective values is an important point to keep in mind when studying motivations to participate in the public sector. Third, citizen patrols consist of an organized activity that is different from more individual forms of coproduction where users directly consume the services, and individuals in such capacities may coproduce for different underlying reasons. Finally, one may point out the problem of common source bias which is caused by two variables displaying measurement error due to a common method such as being derived from a single survey (Favero and Bullock 2015). However, the dependent variable is not a perceptual measure but rather a reported behavior (frequency) concerning respondents’ volunteer activities. Recall bias could still constitute an issue, but as long as performance is not an entirely subjective measure, then common source bias constitutes less of an issue for this study.

Overall, the benefit of an international study is that it applies the same theories and research questions concerning motivations to coproduce in a different setting, broadening our understanding of how coproduction varies across national contexts. If supported by additional research, these implications can provide valuable information for public managers in terms of distinguishing between different managerial strategies for recruiting
citizens to coproduce as well as the retention, coordination, and supervision of those who are actively involved in organized coproduction programs. In particular, the fact that those who are more active in the organization tend to be driven by a desire to improve service quality i.e., enhance community safety, provides crucial information for managers to use.

Getting citizens involved in the first place is an important task in and of itself. However, once citizens are recruited and become involved more actively in coproducing a service, the managerial activities of designing programs that prompt citizens to be more active and to retain them in the long run may require different organizational objectives and incentives. In particular, these management activities pertain to issues of long-term sustainability and continuous innovation of existing programs. But motivations are mutually supportive, and even if greater frequency of participation is closely linked with one type of benefit, other motivations must be considered in tandem in order to sustain coproduction activities in the long run. Future research could build upon these points by exploring motivations behind active citizen participation in other forms of coproducing public safety, in other countries, and/or other policy domains so that different managerial strategies can be tailored to different forms of coproduction.

Notes

2. www.kossda.or.kr/eng/index_kossda.asp

3. The survey does not contain a response rate as the surveys were collected through convenience sampling method.
References


(Korea Citation Index: KCI)

Long, J. Scott, and Jeremy Freese. 2006. Regression Models for Categorical Dependent Variables Using Stata. 2nd ed. College Station, TX: Stata Press.


**Table 1. Number of Voluntary Citizen Patrol Organizations, Volunteers, and Amount of Funds Allocated according to Major Metropolitan City or Province**

<table>
<thead>
<tr>
<th>City / Province</th>
<th>Number of Organizations</th>
<th>Number of Volunteers</th>
<th>Local Govt. funding (in dollars)</th>
<th>Ratio of funds to Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3,917</td>
<td>100,517</td>
<td>12,384,518</td>
<td>100%</td>
</tr>
<tr>
<td>Seoul</td>
<td>450</td>
<td>10,995</td>
<td>1,189,478</td>
<td>9.60%</td>
</tr>
<tr>
<td>Busan</td>
<td>244</td>
<td>4,562</td>
<td>113,658</td>
<td>0.92%</td>
</tr>
<tr>
<td>Daegu</td>
<td>175</td>
<td>4,238</td>
<td>41,200</td>
<td>0.33%</td>
</tr>
<tr>
<td>Inchon</td>
<td>122</td>
<td>2,968</td>
<td>40,069</td>
<td>1.13%</td>
</tr>
<tr>
<td>Gwangju</td>
<td>66</td>
<td>1,222</td>
<td>11,143</td>
<td>0.09%</td>
</tr>
<tr>
<td>Daejeon</td>
<td>144</td>
<td>2,692</td>
<td>46,262</td>
<td>0.37%</td>
</tr>
<tr>
<td>Ulsan</td>
<td>68</td>
<td>2,183</td>
<td>208,099</td>
<td>1.68%</td>
</tr>
<tr>
<td>Kyeonggi</td>
<td>518</td>
<td>15,819</td>
<td>2,764,563</td>
<td>22.32%</td>
</tr>
<tr>
<td>Kangwon</td>
<td>241</td>
<td>7,537</td>
<td>1,595,382</td>
<td>12.88%</td>
</tr>
<tr>
<td>Chungbuk</td>
<td>181</td>
<td>4,835</td>
<td>850,163</td>
<td>6.86%</td>
</tr>
<tr>
<td>Chungnam</td>
<td>392</td>
<td>9,396</td>
<td>1,337,162</td>
<td>10.80%</td>
</tr>
<tr>
<td>Cheonbuk</td>
<td>287</td>
<td>8,587</td>
<td>1,019,229</td>
<td>8.23%</td>
</tr>
<tr>
<td>Cheonnam</td>
<td>307</td>
<td>7,133</td>
<td>1,062,298</td>
<td>8.58%</td>
</tr>
<tr>
<td>Kyeongbuk</td>
<td>351</td>
<td>8,824</td>
<td>1,134,418</td>
<td>9.16%</td>
</tr>
<tr>
<td>Kyeongnam</td>
<td>347</td>
<td>8,785</td>
<td>868,348</td>
<td>7.01%</td>
</tr>
<tr>
<td>Chaeju</td>
<td>24</td>
<td>741</td>
<td>3,048</td>
<td>0.02%</td>
</tr>
</tbody>
</table>

Source: Adapted from Min (2014)  
As of Sep. 2012

a Metropolitan city  
b Province  
c The overwhelming proportion of funds devoted to Kyeonggi province is due to the population figures at 13 million (as of 2015), which is approximately one fourth of the entire Korean population.

**Table 2. Contribution of Voluntary Citizen Patrols to Law Enforcement Performance**

<table>
<thead>
<tr>
<th>Region</th>
<th>Criminal Apprehensions</th>
<th>Custody</th>
<th>Reporting of Crime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Violent</td>
<td>Burglary</td>
</tr>
<tr>
<td>Seoul</td>
<td>614</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Busan</td>
<td>12</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Daegu</td>
<td>14</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Inchon</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gwangju</td>
<td>45</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Daejeon</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

292
<table>
<thead>
<tr>
<th>Metropolitan city</th>
<th>Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ulsan</td>
<td>1 0 0 0 1 94 115 139</td>
</tr>
<tr>
<td>Kyeonggi</td>
<td>324 0 1 118 205 5,500 7,147 4,106</td>
</tr>
<tr>
<td>Kangwon</td>
<td>2 0 0 0 2 34 54 1</td>
</tr>
<tr>
<td>Chungbuk</td>
<td>2 0 1 0 1 235 164 4</td>
</tr>
<tr>
<td>Chungnam</td>
<td>0 0 0 0 0 3 3 14</td>
</tr>
<tr>
<td>Cheonbuk</td>
<td>23 0 0 2 21 38 92 82</td>
</tr>
<tr>
<td>Cheonnam</td>
<td>1 0 0 0 1 67 128 66</td>
</tr>
<tr>
<td>Kyeongbuk</td>
<td>13 0 0 0 13 615 881 277</td>
</tr>
<tr>
<td>Kyeongnam</td>
<td>167 0 1 0 166 306 756 707</td>
</tr>
<tr>
<td>Chaeju</td>
<td>0 0 0 0 0 6 17 5</td>
</tr>
</tbody>
</table>

Source: Adapted from Min (2014). As of Sep. 2012

Table 3. Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Min</th>
<th>Median</th>
<th>Mean</th>
<th>Max</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of participation in patrol activities</td>
<td>0</td>
<td>4</td>
<td>3.83</td>
<td>6</td>
<td>1.12</td>
</tr>
<tr>
<td>Number of hours spent during single patrol activity</td>
<td>1</td>
<td>3</td>
<td>2.94</td>
<td>5</td>
<td>0.91</td>
</tr>
<tr>
<td>Reasons for participation in citizen patrols</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To protect myself and family members</td>
<td>1</td>
<td>3</td>
<td>2.82</td>
<td>9</td>
<td>0.89</td>
</tr>
<tr>
<td>To socialize with local residents</td>
<td>1</td>
<td>3</td>
<td>2.76</td>
<td>9</td>
<td>0.79</td>
</tr>
<tr>
<td>To maintain the safety of my community</td>
<td>1</td>
<td>3</td>
<td>3.37</td>
<td>9</td>
<td>0.68</td>
</tr>
<tr>
<td>To assist local police activities</td>
<td>1</td>
<td>3</td>
<td>3.04</td>
<td>9</td>
<td>0.84</td>
</tr>
<tr>
<td>Self-efficacy (impact of participation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decrease in community crimes</td>
<td>1</td>
<td>3</td>
<td>2.93</td>
<td>4</td>
<td>0.64</td>
</tr>
<tr>
<td>Improved relationship between residents and police</td>
<td>1</td>
<td>3</td>
<td>2.64</td>
<td>9</td>
<td>0.75</td>
</tr>
<tr>
<td>Community Conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of severity of crimes</td>
<td>1</td>
<td>4</td>
<td>3.83</td>
<td>5</td>
<td>0.86</td>
</tr>
<tr>
<td>Victim of crime during past 2 years</td>
<td>1</td>
<td>1</td>
<td>1.12</td>
<td>2</td>
<td>0.33</td>
</tr>
<tr>
<td>Satisfaction with police activities in preventing crime?</td>
<td>1</td>
<td>2</td>
<td>2.22</td>
<td>4</td>
<td>0.69</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>26</td>
<td>46</td>
<td>46.46</td>
<td>66</td>
<td>6.67</td>
</tr>
<tr>
<td>Level of education</td>
<td>1</td>
<td>3</td>
<td>3.20</td>
<td>9</td>
<td>0.93</td>
</tr>
<tr>
<td>Presence of children</td>
<td>1</td>
<td>2</td>
<td>1.95</td>
<td>2</td>
<td>0.22</td>
</tr>
<tr>
<td>Type of residence</td>
<td>1</td>
<td>1</td>
<td>1.50</td>
<td>9</td>
<td>0.79</td>
</tr>
</tbody>
</table>
Table 4. Frequency of Participation in Citizen Patrol Activities

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td>4%</td>
</tr>
<tr>
<td>Twice a week</td>
<td>23%</td>
</tr>
<tr>
<td>Once a week</td>
<td>41%</td>
</tr>
<tr>
<td>Once every 15 days</td>
<td>18%</td>
</tr>
<tr>
<td>Once a month</td>
<td>11%</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>1%</td>
</tr>
<tr>
<td>Don’t know / no response</td>
<td>1%</td>
</tr>
<tr>
<td>Total number of respondents</td>
<td>450</td>
</tr>
</tbody>
</table>

* Responses were rounded to remove decimals
Table 5. Main Reason for Being Currently Active in Citizen Patrols

<table>
<thead>
<tr>
<th>Reasoning</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like to socialize with other patrol members</td>
<td>50.23%</td>
</tr>
<tr>
<td>Became more acquainted with other local residents and police</td>
<td>21.46%</td>
</tr>
<tr>
<td>Maintain community safety</td>
<td>10.96%</td>
</tr>
<tr>
<td>General sense of volunteering</td>
<td>7.76%</td>
</tr>
<tr>
<td>For the sake of doing so (reluctantly)</td>
<td>4.11%</td>
</tr>
<tr>
<td>Receive associated benefits (i.e., exemption from reserve training)</td>
<td>0.23%</td>
</tr>
<tr>
<td>Address teen delinquency</td>
<td>0.23%</td>
</tr>
<tr>
<td>Something I wanted to do (positive willingness)</td>
<td>0.68%</td>
</tr>
<tr>
<td>Social commitment / responsibility</td>
<td>0.91%</td>
</tr>
<tr>
<td>Other</td>
<td>3.42%</td>
</tr>
<tr>
<td>Total number of respondents</td>
<td>450</td>
</tr>
</tbody>
</table>

Table 6. Severity of Crime Problems

<table>
<thead>
<tr>
<th>Response scale</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not severe at all</td>
<td>1%</td>
</tr>
<tr>
<td>Somewhat severe</td>
<td>8%</td>
</tr>
<tr>
<td>Average</td>
<td>15%</td>
</tr>
<tr>
<td>Moderately severe</td>
<td>58%</td>
</tr>
<tr>
<td>Very severe</td>
<td>18%</td>
</tr>
<tr>
<td>Total number of respondents</td>
<td>450</td>
</tr>
</tbody>
</table>

* Responses were rounded to remove decimals

Table 7. Satisfaction with police activities in preventing crime

<table>
<thead>
<tr>
<th>Response scale</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sufficient at all</td>
<td>11%</td>
</tr>
<tr>
<td>Somewhat insufficient</td>
<td>59%</td>
</tr>
<tr>
<td>Moderately sufficient</td>
<td>26%</td>
</tr>
<tr>
<td>Highly sufficient</td>
<td>4%</td>
</tr>
<tr>
<td>Total number of respondents</td>
<td>450</td>
</tr>
</tbody>
</table>

* Responses were rounded to remove decimals
<table>
<thead>
<tr>
<th>Response scale</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>12%</td>
</tr>
<tr>
<td>No</td>
<td>88%</td>
</tr>
<tr>
<td>Total number of respondents</td>
<td>450</td>
</tr>
</tbody>
</table>

* Responses were rounded to remove decimals
Table 9. Ordered Logistic Regression of Frequency of Participation in Citizen Patrols

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient (Robust SE)</th>
<th>% Δ Odors Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material, Solidary, Expressive, and PSM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To protect myself and family members</td>
<td>0.15(0.26)</td>
<td>-4.03</td>
</tr>
<tr>
<td>To socialize with local residents</td>
<td>-0.07(0.13)</td>
<td>-10.52</td>
</tr>
<tr>
<td>To maintain community safety</td>
<td>0.29(0.22)**</td>
<td>44.89</td>
</tr>
<tr>
<td>To assist local police activities</td>
<td>-0.21(0.12)*</td>
<td>-17.89</td>
</tr>
<tr>
<td>Self-efficacy (impact of participation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decrease in community crimes</td>
<td>0.46(0.21)***</td>
<td>103.61</td>
</tr>
<tr>
<td>Improved relationship between residents and police</td>
<td>-0.26(0.13)**</td>
<td>-19.61</td>
</tr>
<tr>
<td>Community Conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of severity of crimes</td>
<td>0.21(0.10)**</td>
<td>23.64</td>
</tr>
<tr>
<td>Victim of crime during past 2 years</td>
<td>-0.29(0.28)</td>
<td>-28.61</td>
</tr>
<tr>
<td>Satisfaction with police activities in preventing crime</td>
<td>0.16(0.15)</td>
<td>18.46</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.02(0.02)</td>
<td>-1.96</td>
</tr>
<tr>
<td>Level of education</td>
<td>-0.05(0.09)</td>
<td>-5.66</td>
</tr>
<tr>
<td>Presence of children</td>
<td>-1.35(0.48)***</td>
<td>-73.52</td>
</tr>
<tr>
<td>Homeownership</td>
<td>0.24(0.12)**</td>
<td>29.38</td>
</tr>
<tr>
<td>Duration of residence (in years)</td>
<td>0.03(0.01)***</td>
<td>2.84</td>
</tr>
</tbody>
</table>

Wald chi-square = 70.45; N = 449; R-square = 0.05
*p<0.1, **p<0.05, ***p<0.01
Table 10. Marginal Effects

Participation in citizen patrols: 1=less than once a month; 2=once a month; 3=once every 15 days; 4=once a week; 5=twice a week; 6=every day

<table>
<thead>
<tr>
<th>Variables</th>
<th>Response Categories</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reasons for participation in citizen patrols</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To protect myself and family members</td>
<td>0.000</td>
<td>0.003</td>
<td>0.005</td>
<td>-0.001</td>
<td>-0.006</td>
<td>-0.001</td>
</tr>
<tr>
<td>To socialize with local residents</td>
<td>0.001</td>
<td>0.009</td>
<td>0.012</td>
<td>-0.002</td>
<td>-0.018</td>
<td>-0.003</td>
</tr>
<tr>
<td>To ensure community safety</td>
<td>-0.004</td>
<td>-0.030</td>
<td>-0.041</td>
<td>0.008</td>
<td>0.058</td>
<td>0.012</td>
</tr>
<tr>
<td>To assist local police activities</td>
<td>0.002</td>
<td>0.016</td>
<td>0.022</td>
<td>-0.004</td>
<td>-0.031</td>
<td>-0.006</td>
</tr>
<tr>
<td>Self-efficacy (impact of participation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decrease in community crimes</td>
<td>-0.007</td>
<td>-0.058</td>
<td>-0.078</td>
<td>0.014</td>
<td>0.112</td>
<td>0.022</td>
</tr>
<tr>
<td>Improved resident/police relationship</td>
<td>0.002</td>
<td>0.018</td>
<td>0.024</td>
<td>-0.004</td>
<td>-0.034</td>
<td>-0.007</td>
</tr>
<tr>
<td>Community Conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of severity of crimes</td>
<td>-0.002</td>
<td>-0.017</td>
<td>-0.023</td>
<td>0.004</td>
<td>0.033</td>
<td>0.007</td>
</tr>
<tr>
<td>Victim of crime during past 2 years</td>
<td>0.004</td>
<td>0.027</td>
<td>0.037</td>
<td>-0.007</td>
<td>-0.053</td>
<td>-0.010</td>
</tr>
<tr>
<td>Satisfied with police in preventing crime</td>
<td>-0.002</td>
<td>-0.014</td>
<td>-0.019</td>
<td>0.003</td>
<td>0.027</td>
<td>0.005</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.000</td>
<td>0.002</td>
<td>0.002</td>
<td>0.000</td>
<td>-0.003</td>
<td>-0.001</td>
</tr>
<tr>
<td>Level of education</td>
<td>0.001</td>
<td>0.005</td>
<td>0.006</td>
<td>-0.001</td>
<td>-0.009</td>
<td>-0.002</td>
</tr>
<tr>
<td>Presence of children</td>
<td>0.014</td>
<td>0.108</td>
<td>0.146</td>
<td>-0.027</td>
<td>-0.209</td>
<td>-0.041</td>
</tr>
<tr>
<td>Homeownership</td>
<td>-0.003</td>
<td>-0.021</td>
<td>-0.028</td>
<td>0.005</td>
<td>0.041</td>
<td>0.008</td>
</tr>
<tr>
<td>Duration of residence (in years)</td>
<td>0.000</td>
<td>-0.002</td>
<td>-0.003</td>
<td>0.001</td>
<td>0.004</td>
<td>0.001</td>
</tr>
</tbody>
</table>
Abstract

This chapter addresses the question of how literature on the voluntary sector can inform research on coproduction. Because this substantial literature encompasses half a century of inquiry, we cannot summarize this work or the burgeoning study of coproduction here. Instead the chapter identifies and presents three themes from the voluntary sector literature of especial interest to coproduction scholars. First, this body of research is concerned intensely with the motivations of individuals to volunteer their time, which may have implications for coproduction since this activity, too, requires voluntary effort on the part of service-users. Second, research on voluntary sector organizations suggests that the investment of time and effort by those who volunteer has consequences not only for the policy or service outcomes achieved but also for the development and enhancement of citizenship. In this sense we might consider how the coproduction process affects not only policy outcomes but the development of citizenship. Third, we consider the organizational conditions that support coproduction. Here we examine how government funding and the requirements normally attached to it for voluntary sector organizations might work to constrain or invigorate coproduction processes.
Introduction

Coproduction was introduced in the United States during the 1970s and early 1980s to describe the active involvement of service recipients in the service delivery process (e.g., Brown 1976; Brudney and England 1983; Gersuny and Rosengren 1971; Ostrom et al 1973; Parks et al., 1981; Whitaker 1976). Although research on the topic seemed to languish in the late 1980s to the early 2000s, the concept of coproduction has found new currency among researchers in public administration, particularly in the United Kingdom and Europe (Alford 2009; Pestoff, Brandsen and Vesperhuere 2013). This research has considered questions such as, what are the costs and benefits of supplementing employees’ service-delivery activity with citizen effort, what types of coproduction lead to better outcomes, and what motivates citizens to coproduce?

More recently researchers have turned their attention to voluntary sector organizations to consider how service users in these settings actively participate in the service delivery process. (e.g., Benjamin and Campbell 2015; Pestoff and Brandsen 2008; Prentice 2006; Vamstad 2012). This literature has examined such questions as: Are voluntary sector organizations more able than government agencies to support citizen coproduction? What are the risks of relying more extensively on the voluntary participation of service users to deliver services in these settings? What does coproduction require of paid staff in voluntary organizations? With these organizations playing an increasingly central role in delivering public services, a treatment of coproduction in the context of voluntary sector organizations is timely.

Accordingly, this chapter considers how the research from voluntary sector studies, which at this writing spans nearly half a century, can inform our understanding of
coproduction. We define coproduction as the active role that service users can play in the service delivery process. This definition follows Brandsen and Honingh’s definition of coproduction in this volume, as they state that coproduction is citizens’ direct input into the production process that affects the services individually provided to them. We use the term voluntary sector and voluntary sector studies to refer to research about organizations that are neither for-profit nor public (government) agencies, including professional social service nonprofits and grassroots organizations with no paid staff. We reserve the term volunteer for individuals who are not direct service recipients or “coproducers” but who may assist in service delivery nonetheless.

We organize our discussion around three primary themes: motivation for coproduction, capacity for coproduction, and organizational conditions supporting coproduction. Throughout our discussion we integrate recent research on coproduction in the voluntary sector, and where appropriate reference other literature. We conclude with suggestions for further research.

**Volunteer Motivation and Coproduction**

Securing the voluntary participation of individuals to address common problems is a principal concern of nonprofit organizations. Without the benefit of funding through either taxation (government) or conventional market transactions (business), nonprofit organizations find themselves perpetually in need of generating resources to pursue their missions. One of these resources is voluntary labor contributed by citizens. In addition to the “time, talent, and treasure” people devote to participating on boards of directors of nonprofit organizations, often called “policy volunteering,” citizens volunteer their time to
help nonprofits carry out their missions on the ground, through “service volunteering”
activities, such as assisting clients or paid staff (Connors, 2012).

The largest repository of data on volunteering is the United States. According to the
population age 16 and over (24.9 percent) volunteered in the year ending in September
2015 (the most recent year for which data are available): About 62.6 million people did
unpaid work (except for expenses) through or for an organization at least once between
September 2014 and September 2015. Brudney (1990) estimates that between 70 and 80
percent of all volunteer effort goes to nonprofit organizations, and Hager and Brudney
(2004a, 2004b) find through a survey of a nationally representative sample of charities that
four in five nonprofit organizations use service volunteers. Although no one country can be
representative of the volume and diversity of volunteering worldwide, the level of
volunteering both in the United States and cross-nationally is substantial (United Nations
Volunteers, 2015).

Given this large endowment of unpaid labor, the motivations of people to donate
their time is a central issue and concern for practitioners and scholars in nonprofit
organizations. How might these motivations relate to the willingness of those receiving
services to take on greater responsibility voluntarily in producing the services they receive,
or coproduction? Empirical and conceptual research provide useful clues.

Seven surveys based on nationally representative sample have been conducted on
the motivations of volunteers in the United States (Brudney, 2016). Although, lamentably,
the surveys may have become dated, the consistency of the responses of the volunteers
across the surveys suggest that these motivations are enduring. Because an activity as
complex as giving time may have many roots or motivations, volunteers could select multiple reasons for this activity; thus, the percentages in any one survey sum to more than 100 percent.

By far, the survey responses given most frequently by U.S. volunteers expressing their reasons for volunteering are: “doing something useful” and to “help other people,” stated by as many as 60 – 70 percent of volunteers, especially in the more recent national surveys. The next most common motivation of the volunteers pertains more centrally to the benefits that volunteers may receive through this activity: “enjoy doing volunteer work” or “interest in the activity or work,” stated by about 35 – 40 percent of volunteers. A sense of obligation is also present among a sizable group of volunteers: “Religious concerns” or a “sense of duty” command around 30 percent of volunteers. Similarly, having a “friend or relative who received service,” which may engender a sense of obligation, was a reason stated by 17 percent.

Although these surveys may activate biases in response, for example, toward social desirability and against revealing self-serving reasons for volunteering, relatively few of the volunteers across the seven surveys professed self-interested motivations that might be most germane to engaging citizens receiving services in coproduction, such as “volunteer received service” (9 – 17%) and volunteering is a “learning experience” (8 – 16%).

On the conceptual level, Clary and colleagues (Clary and Snyder, 1991; Clary et al., 1998) have proposed the Volunteer Functions Inventory (VFI) to capture the motivations that may animate volunteers into action. Voluminous research has used or discussed the VFI (for a recent review see Ashhar, 2015). The VFI consists of six dimensions: The Values function expresses that the person is volunteering in order to express or act on important
values, such as humanitarianism and helping the less fortunate. The *Understanding* function expresses that the volunteer is seeking to learn more about the world and/or exercise skills that are often unused. The *Enhancement* function provides that the individual is seeking to grow and develop psychologically through involvement in volunteering. The *Career* function proposes that the volunteer has the goal of gaining career-related experience through volunteering. The *Social* function conceives that volunteering can allow a person to strengthen social relationships. Finally, the *Protective* function recognizes that the individual may use volunteering to reduce negative feelings, such as guilt, or to address personal problems.

Contemporary research adds nuance to these earlier findings. Hustinx and Lammertyn (2003) propose that volunteering is undergoing a major change in style from “collective” to “reflexive.” Yet, scholars continue to accept and use the Volunteer Functions Inventory to comprehend and assess volunteer motivations, although they find that these functions are related differentially to such factors as individual well-being, satisfaction with volunteering, and intention to continue volunteering (for example, Stukas *et al.* 2016). Again using the VFI to understand and classify volunteer motivations, Dunn, Chambers, and Hyde (2016) investigated the motivations for episodic volunteering across sectors (sport, tourism, events, health and social welfare) and found a more complex set of functions served in this type of volunteering (more than 80 percent of the motives were classified according to the VFI functions, particularly enhancement, values and social functions). Other research examines volunteering formally (through an organization) versus informally (alone); based on representative national samples of the Japanese public, Mitani (2014) found that while socioeconomic resources (education) were more strongly related to formal than to informal volunteering, subjective dispositions such as empathy and religious mind
were essential facilitators of both kinds of volunteering. Research has also addressed the
differences between volunteering on-line through electronic media versus offline in more
traditional organizational settings in which the volunteer is physically present; Ihm (2017)
reports that volunteering in one sphere can complement volunteering in the other sphere.

Research on coproduction has also revealed diverse motivations for participation,
although we should not expect these motivations to be identical to those of volunteers
since coproducers benefit directly from the services they help to provide. According to Van
Eijk and Steen (2016, 29), “Despite many studies in the field, we know little about what
drives individuals to engage in co-production.” They propose an integrative model to
account for the willingness to engage in coproduction consisting of three sets of factors:
perceptions of the coproduction task and the competency to contribute to the public
service delivery process, individual characteristics, and self-interested and community-
focused motivations. In earlier research to provide an understanding of “Why People Co-
Produce” these authors draw on the literatures of citizen participation, political efficacy,
volunteerism, public service motivation, customer engagement, as well as coproduction
(Van Eijk and Steen 2014). Their review indicates that “while specific insights in citizens’
motivations for co-production is still limited” (p. 362), individual capacity, including human
capital and social capital, and willingness, comprising both self-centered (egoistic) and
community-oriented (pro-social) motivations, might help to explain citizens’ decisions to
participate in co-production. Fledderus and Honingh (2016) found that participants in
activation services are more motivated in general and have higher levels of trust and
control, a finding they relate to the possibility of “creaming,” i.e., the selective participation
of clients in coproduction according to the strength of their intrinsic motivations.
Like Van Eijk and Steen (2014, 2016), Alford (2002) conceives of eliciting coproduction as a function of increasing citizens’ willingness and ability to contribute; he identifies the key motivators for coproduction as sanctions, material rewards, intrinsic rewards, solidary incentives, and normative appeals. In one study Alford (2002) observed that citizens receiving services are motivated by material, solidarity and expressive incentives, a result confirmed by Pestoff (2008). But Alford also found that low-income service recipients in workforce development programs negotiate complex feelings of hopelessness and lack of confidence, which complicate their motivation. This finding is substantiated in a broad body of research in social psychology, anthropology and sociology (e.g., Mauss 2002/1950, Gouldner 1960; Nadler 2014). Coupled with the literature on volunteer motivation, the coproduction literature suggests that scholars might consider a more diverse mix of motivations for coproduction, and how these motivations may vary depending on the extent to which service recipients volunteer and feel confident about their ability to engage in coproduction.

**Capacity for Coproduction**

Dating back to the writings of de Tocqueville in the 1830s, observers of voluntary organizations have pointed out that citizens do not simply help solve common problems, but as Clemens (2006: 207) points out, in working to solve these problems individuals ‘become citizens’: they conceive of themselves in public ways and they learn skills needed to participate more effectively in public life. What does this understanding suggest for scholars of coproduction? Although the voluntary sector literature has primarily focused on developing the citizenship capacity of volunteers, we extend this logic here to suggest that
how direct service recipients are asked to coproduce has consequences not only for service outcomes but also for their capacity as citizens.

For example, nonprofit mental health clubhouses are organizations where individuals with mental illness work side by side, with paid staff to run the organization. The first clubhouse was started in the late 1940s and grew out of an effort by individuals with mental illness to provide a place of mutual support and an alternative to institutionalization. As these members work with staff to run the house (e.g., answer telephones, perform administrative tasks, help prepare meals, etc.), they also learn to develop common agendas, work through conflict, consider another’s viewpoints, deal with other people, and lead. This experience can in turn foster solidarity among a larger community and realization of a common cause. Such development can also help support norms of reciprocity that make future collective action possible and lead to greater engagement in political life, for example, voting (Putnam 1995). In this respect voluntary organizations are not only alternative sites for coproducing publicly financed services, but also they function as “schools of coproduction,” to adapt a phrase from de Tocqueville.

For their part, coproduction scholars have called attention to the fact that citizens must learn to coproduce, and that not all citizens are equally equipped or prepared to do so (see Jacobsen and Eriksen 2013 and Prentice 2006). These researchers have also pointed to the importance of coproduction for revitalizing democracy, but to our knowledge this research has not considered the development of service users as citizens, as a separate and important result, alongside desired policy outcomes. The voluntary sector literature suggests that citizenship development is an important outcome for those participating in these not for profit, non-governmental organizations. Although most attention by voluntary...
sector scholars has been given to the citizenship development of volunteers, some recent
literature considers the citizenship outcome for those participating in services (See Karriem
and Benjamin 2016, Small 2009). Examining these two distinct outcomes is also consistent
with research on policy feedback, which has found a direct relationship between policy
design and civic and political engagement by service recipients (see Bruch, Ferree and Soss
2010; Mettler and Soss 2004; Soss 1996).

But the voluntary sector literature also suggests that enhanced capacity of citizens is
not a foregone conclusion of participation. Three observations may be of particular interest
for scholars of coproduction. First, this literature indicates that voluntary organizations are
more likely to cultivate these citizenship skills and attitudes when these organizations are
less professionalized and less bureaucratic. In other words, voluntary organizations are
more likely to cultivate these skills and attitudes when they provide more opportunities for
participation, and when that participation comes with greater authority to make decisions
(Clemens 2006: 210). Second, this literature suggests that we cannot assume that more
participation is better, that it leads to better outcomes, democratic values and enhanced
citizenship capacity. The literature contains numerous examples of voluntary organizations
which have enhanced solidarity among citizens but used exclusionary practices that resulted
in uncivil behavior (Berman 1997). Finally, the voluntary sector literature shows that
although participation can lead to the development of civic skills, individuals do not
necessarily use the skills they have developed to participate in public life. For example,
Eliasoph (1998) found that individuals participating in voluntary organizations avoided
talking about politics, which led to more apathetic behavior. Brandsen and Helderman
(2012) reported similar results in their study of housing cooperatives.
Because much of this discussion in voluntary sector studies has focused on volunteers, not necessarily on service users, the question for researchers of coproduction is what kinds of lessons do service-users learn in the service delivery process? What do they learn about their capacity and role not only as co-producers but also as citizens? And how does this learning change when service-users participate to a greater or lesser degree or engage in some types of service related activities rather than others?

**Conditions for Coproduction**

The question of what conditions might support greater and more effective coproduction on the part of those receiving services has been a central concern for scholars of coproduction since the 1970s. In early research Ostrom and her colleagues found that decentralized service provision provided more opportunities for citizens to engage with municipal police, which resulted in enhanced neighborhood safety (Ostrom et al 1973). In addition to this service arrangement, researchers have identified several other conditions that can affect coproduction, including the attitudes and skills of professional staff, the size of the organization, and the accessibility of services (Bovaird and Loffler 2012; Pestoff 2012).

The voluntary sector literature also considers how organizational form/structure can constrain and/or facilitate participation among volunteers, members, and clients. As noted in the previous section, one of the principal findings of this literature is that the more professionalized and bureaucratic the organization, the less likely that the organization will engage in participatory practices with clients and the broader community. This literature identifies a number of reasons consistent with the findings in the coproduction research,
including staff resistance, lack of dedicated resources to support such efforts, and professional jargon. (Benjamin in press).

Yet this literature also shows that even voluntary sector organizations that start out using participatory practices may eventually abandon them. In fields as diverse as domestic violence, community development and community health care, studies have shown how difficult it is to maintain participatory practices in these organizations (e.g., see Hwang and Powell 2006; Stoecker 1997; Wies 2008). Although several factors may lead to voluntary organizations abandoning more participatory practices, including Michels’ “iron law of oligarchy,” of particular interest to coproduction scholars, is the impact of government funding. If we are interested in the coproduction of publicly financed services, which are increasingly delivered by voluntary organizations, how does such financing affect coproduction in these organizations?

When nonprofits receive funding, particularly government funding, the organization must meet the attached accountability requirements. Studies have found that these requirements lead to organizational formalization and a reduction in responsiveness to service recipients and the community more broadly. For example, researchers have noted that client and community engagement becomes limited to advisory groups or boards of directors, which often have little influence on organizational decision making (Smith 2012); other studies corroborate this finding (e.g., Hwang and Powell 2006; Smith and Lipsky 1993). Recent coproduction research likewise supports these findings. For example, Vamstad (2009) found that in municipal agencies providing childcare staff saw themselves as professional experts, and consequently engaged parents less in service delivery. In contrast,
in cooperatives providing the same service the staff and parents worked side-by side to deliver childcare.

We cannot take this conclusion for granted, however. Other research suggests that receipt of government funding does not inherently preclude more participatory practices in voluntary sector organizations. For example, Ospina and her colleagues (2002) found that despite funding requirements nonprofits do find ways to engage clients and remain responsive to them. LeRoux (2009) determined that government funding was associated with more participatory practices in nonprofit human service organizations; more specifically, she reports that nonprofits receiving government funding were more likely to have clients participate in work groups compared to nonprofits that did not receive government funding. In her in-depth study of twelve human service organizations, eleven of which received government funding, Benjamin (in press) found that these organizations used a wide variety of strategies to reduce bureaucratic and professional authority and increase client participation in the service delivery process. These strategies included reducing rules, allowing clients to choose the staff person they worked with, using peer based learning strategies and supporting staff to build more mutual relationships with participants.

For coproduction researchers this literature leads to the conclusion that we cannot paint government funding of voluntary organizations with a broad brush. For example, government contracts come with more specific requirements than grants, which may make it more difficult for voluntary organizations to have the flexibility they need to engage program and service participants (Salamon 2002). Some government financing comes with explicit requirements that voluntary organizations demonstrate responsiveness and
accountability to service recipients. At the same time, we need to understand government funding of these services in the larger nonprofit revenue context. For example, organizations that match public funds with private donations may find it easier to sustain greater service user engagement, compared to nonprofits that receive a majority of government funding. In part this is because individual donors usually do not require specific reports or requirements.

**Conclusion**

The literature on voluntary sector studies is extensive, and a chapter of this length cannot do justice to this work or to the burgeoning research on coproduction. Instead, we focused on three themes from the voluntary sector literature of interest to coproduction scholars. First, we suggested that motivations for coproduction may vary depending on the extent to which the citizen receiving services also volunteers. Second, we suggested that the form and type of participation that services require of recipients have consequences not only for policy outcomes but also for citizenship outcomes. Finally, in reviewing the conditions that support coproduction, we focused on whether government funding and the resulting requirements attached to this funding, support or constrain coproduction in voluntary sector organizations; the results to date are mixed.

As research and practice on coproduction continues to cross disciplinary boundaries, policy domains, and organization types, we see many areas that could benefit from further inquiry. We suggest four broad questions that might inform the contribution of voluntary sector studies to research on coproduction: First, to what extent, and in what ways, might coproduction differ in voluntary organizations versus government agencies? Second, and
relatedly, can we view coproduction through these organizations as “laboratories” not only of service outcomes but also of citizenship development? Third, how might government funding, regulation, and evaluation of voluntary, nonprofit organizations affect coproduction processes? Will such extrinsic interest by government in coproduction mediated through these organizations distract or even displace them from their presumably intrinsic interest in and commitment to client participation? Finally, if nonprofit sector service-delivery organizations are to support the coproduction of programs and service participants, do staff possess the appropriate background and training? What curricular changes might be needed in nonprofit management (and related) education programs to support or equip staff members for this responsibility?

In this chapter we considered how the research on voluntary sector organizations not only furthers our understanding of service users’ motivation to coproduce, their capacity to coproduce and the conditions that support their coproduction, but we also suggest that this research raises new questions for coproduction scholars. As we rely on many voluntary sector organizations to help achieve public outcomes regardless of whether they are delivering publicly financed services, we anticipate that the research on these organizations will become even more useful for public management scholars interested in coproduction. In the end we see far more generative research possibilities from fully integrating the research on voluntary sector organizations and coproduction in public management.

References


Abstract: Co-production is expected to enhance the achievement of public values such as a more responsive service delivery, reduced costs, or increased access for vulnerable groups. Little is, however, known about the day-to-day struggles of co-producers as they face conflicting values. This paper aims at studying if and which value tensions are present in the co-production of social care services, and what different coping strategies citizen and public professional co-producers implement when confronted with such dilemma situations. The study focuses on one case in the social care sector in Flanders. In-depth studies are conducted and interview-data are analysed with NVivo (QSR NVivo 10) following the open coding research method. The results of our study showed that public professionals and citizen co-producers do experience value dilemmas between the values they expect to create. These value dilemmas occur between and among the public values corresponding to achieving better services, better relationships between public professional and citizen, better democratic quality and the values specific to co-production in care services. Public professionals adhere to a variety of coping strategies, whereas citizen co-producers tend to escalate or avoid coping with dilemmas.

1. Introduction

A growing elderly population and increasing austerity measures taken in the health sector in Western countries result in the need for innovation in the delivery of care services. Nowadays, co-production, where regular service producers collaborate with citizens to provide public services, is often seen as a way to innovate service delivery. Despite the growing attention on co-production (e.g. Bovaird 2007; Alford 2009; Pestoff et. al. 2013; Pestoff 2006; Thomsen & Jakobsen 2015; Meijer 2014), the understanding of the fundamental nature of co-production and its claimed effects is still limited (Meijer 2016).

On the one hand, co-production is expected to increase the achievement of public values including a more responsive service delivery, reduced costs, and increased access for vulnerable groups (such as frail elderly). On the other hand, the literature acknowledges that public service professionals frequently face value conflicts and dilemmas: trade-off situations that have negative consequences no matter which option is chosen (Bozeman 2007; Schott 2015). Public organizations try to balance ‘traditional’ governmental values - such as integrity, neutrality, legality and impartiality - with ‘businesslike’ values - such as efficiency, innovation, responsiveness and effectiveness (Hood 1991; de Graaf & van der Wal 2010). Additionally, public professionals were found not only to experience these dilemmas, but also to adhere to
coping strategies in order to deal with these dilemmas (e.g. Steenhuisen 2009; Schott 2015). In co-production initiatives, public value dilemmas and how actors cope with them can affect the value that is eventually co-created. For example, initiatives in which elderly co-deliver care to one another may increase responsiveness and participation but may at the same bring up questions on access, accountability and quality of the care delivery. How co-producers cope with such value dilemmas will influence the outcome of the delivered service.

We therefore ask the following research questions: To which extent does co-production in social care enhance or rather obstruct the creation of public values?

This paper is an exploratory study into the framing of value dilemmas encountered by individual co-producers, specific to the co-production of social care services. For this study we rely on the definition by Brandsen and Honingh (2016) who identify core elements of co-production, describing it “as a relationship between a paid employee of an organization [i.e. a public professional] and (groups of) individual citizens that requires a direct and active contribution from these citizens to the work of the organization” (p. 431). We first borrow concepts and theories from existing literature on public values, value tensions and coping strategies to develop a framework for analysing value tensions and coping strategies in the context of co-production of social care services. Second, the paper analyses a single case set in a small size municipality in Flanders which we give the fictional name of ‘Connected Care’. In the Connected Care (CC) initiative, a local governments’ care service is experimenting with co-production with the aim of empowering and de-isolating the frail elderly. In-depth interviews are conducted and interview-data are analysed with Nvivo (QSR NVivo 10) following the open and axial coding research method.

2. Co-production of public values

2.1 Value co-creation

Public values are a well discussed topic in the public administration literature (Beck Jørgensen & Bozeman 2007; Bovens, ‘t Hart & van Twist 2007; Rutgers 2008, de Graaf & Paanakker 2014; Box 2015; de Graaf, Huberts & Smulders 2016). Public values is the term for “the procedural ethics in producing public services and for outcomes made possible by producing public services” (Bryson, Crosby & Bloomberg 2014, p. 451; see also De Graaf & Paanakker 2014). Scholars (e.g. Bryson et al. 2017) argue that Moore’s (1995) normative approach and his theory on public value(s) should be adapted, since it is not merely the public manager but also other actors in the public, private, voluntary and informal community sectors who (co-) create public value(s). The phenomenon of co-production has led scholars to study how a variety of actors are co-creating the public values resulting from public service delivery (Vargo & Lusch 2008; Payne, Storbacka & Frow 2007; Grönroos 2008, 2011; Spohrer & Maglio 2008; Edvardsson, Tronvoll & Gruber 2011; Osborne, Radnor & Strokosh 2016; Alford 2014; Alford 2016). They study how values are co-created through the iterative interactions of service users and service professionals with public service delivery. Furthermore, they discuss that individuals co-create the value of their own service, and can also contribute to the collective co-creation for other citizens and users in interaction with the public professional and the values which characterises the public services (e.g.
community building services are characterised with social cohesion) (e.g. Osborne e.a. 2016).

The recent attention to value co-creation alike suggests certain value tensions between private and public values (Alford 2014; Alford 2016; Osborne et al. 2016; Farr 2016). This line of research points out that a service may entail one or more private (client focus) and public (collective focus) values co-created by a variety of involved actors. The co-created private and public values in some cases converge with each other, conflict with each other in others, or in yet other cases they may do neither while being ‘just different’ (e.g. Brandsen & Helderman 2012). For example, as Brandsen and Helderman (2012, p. 1142) illustrate in their study on successful co-production in housing, “the interests of the individual and the collective interest may not coincide – for example, when collective investment detracts from the quality of life of some residents and they oppose this investment. However, it is also possible for the interests of the individual and the collective interest to coincide, for example when an individual invests in communal [values] and by doing so enhances his own quality of life”.

Also in public administration literature it is often discussed that public professionals encounter public value dilemmas in their daily work. They thus have to deal with the challenge of balancing values such as integrity, neutrality, legality, and impartiality, efficiency, innovation, responsiveness and effectiveness (e.g., Hood 1991; de Graaf & Van der Wal 2010). Yet, co-production may also help to balance out the dilemmas often encountered in public service provision, for example, since making use of the resources of users may increase the efficiency of the service while safeguarding the effectiveness. Introducing peer workers and empowering the clients of a service , i.e. inviting citizens and clients to co-produce, may reduce the cost of the service delivery while being beneficial for other values such as reciprocity or effectiveness (Ross, Needham & Carr 2013). This raises the question to which extent co-production helps with the prevention of experiencing public value dilemmas. Additionally, the question is raised to which extent co-production may obstruct the creation of public values or the ‘de-construction’ of values (e.g. Plé and Chumpitaz Cáceres 2010; Echeverri and Skalen 2011).

2.2 Expectations of values created through co-production.

Co-production is expected to increase the achievement of public values such as a more responsive service delivery, reduced costs, increased access for vulnerable groups (e.g. frail elderly), etc. Specifically, for care services, the World Health Organization (WHO 2016, p. 11) expects from co-production in delivering care services that it will improve access, increase satisfaction of the costumer, result in a better relationship between individual and care providers, but also in care that is more responsive to community needs, and in a greater engagement and participatory representation. These expectations match with Vanleeene et al.’s (2015) clustering of different public values that are co-created in the co-production of public services. These are categorized according to their aim: delivering better services, establishing a better relationship between public professional (organisation) and citizens/service users, and increasing democracy quality (Table 1).
Proponents of co-production claim that co-production provides the opportunity for improving better services such as efficiency and quality of service delivery through better use of time, efforts and resources (knowledge, expertise) of both public service professionals and users. Co-production is expected to reduce costs of public service delivery, while contributing to greater users’ satisfaction and better targeted services (Pestoff 2006). Also, it is expected to enhance a better relationship between citizen and public professional through values such as the responsiveness of public services, and thus becomes a mechanism for tailing services to personal needs (Vanleene e.a. 2017). Finally, co-production is also expected to enhance democratization, since co-production is seen as a source of citizen empowerment, a means to enhance the ‘voice’ of service recipients (Fledderus 2015).

2.3 Value dilemmas in the literature

A recurrent issue in Public Administration literature is that public professionals experience conflicts between public values when they need to take decisions or produce public services (Van der Wal, de Graaf, & Lawton, 2011, de Graaf, Huberts & Smulders 2016; Hood 1991; O’Kelly & Dubnick 2006; Provan & Milward 2001). While in recent years the empirical attention for value conflicts experienced by public servants has increased (e.g. Maynard-Moody & Musheno 2003; de Graaf & Paanakker, 2014; Schott 2015, p. 31-35; Schott, Van Kleef & Steen 2015), overall still, empirical evidence on conflicting values is rare (de Graaf et al. 2016).

The starting assumption for many scholars studying tensions between values (Spicer 2001, 2009; Wagenaar 1999; de Graaf & Paanakker 2014; van der Wal et al. 2011) is ‘value pluralism’, a concept borrowed from the field of philosophy (e.g. Berlin 1982). Value tensions and dilemmas are a consequence of the characteristics of values, i.e. they are not measurable on a scale and there is no rational solution for defining which value is the most important in a certain situation. When such values are then also incompatible they lead to value tensions and dilemmas (de Graaf & Paanakker 2014, p. 125; Hampshire 1983, p. 24, Wagenaar 1999;
Nieuwenburg 2004). Other explanations for the existence of value tensions are the great number of stakeholders in public service delivery holding different expectations (Lipsky 1980; Meynard-Moody & Musheno 2000) and the fuzziness in defining what is ‘the public interest’ (e.g. Schott 2015).

Co-production offers a new context to public value creation, which might add to or resolve some of the tensions. Based on the risks of co-production identified in the literature by Vanleene e.a. (2015), the occurrence of the a number of tensions is probable. Firstly, co-production may strengthen insider/outsider dynamics when equality in input is not guaranteed and when access is only guaranteed for specific social groups (e.g., Brandsen & Heldermon 2012). Secondly, the issue of ‘accountability’ may be problematic: who can the users hold accountable when they themselves are part of the production process (Verschuere, Brandsen & Pestoff 2012)? A third issue may be the self-serving bias, which occurs when an actor takes more credit for success than for failure (e.g. Fledderus 2015). In their literature study, Vanleene e.a. (2015) also point to value tensions implied in co-production, which is mostly referred to as co-production being time-consuming; resulting in user dissatisfaction as a result of failure to fulfil high expectations; and in lack of impact as perceived by users or citizens.

2.4 Coping strategies in the literature

Public Administration literature not only finds public professionals to experience public value dilemmas, but also to adhere to coping strategies in order to deal with these dilemmas (e.g., de Graaf e.a. 2014; Lipsky 1980). Steenhuisen (2009) defines coping as “a response to competing values that takes form in the actions and decisions” (p. 20). The concept of ‘coping strategy’ provides a conceptual lens to study how conflicting values are dealt with by citizens and public service professionals engaged in co-production. Knowledge on how value dilemmas are dealt with in collaborations between different actors is scarce (van Gestel e.a. 2008). Nevertheless, on the basis of the existing literature (e.g. Thacher and Rein 2004; Stewart 2006; van der Wal, de Graaf, and Lawton 2011; de Graaf, Huberts, and Smulders 2016) on coping strategies in dilemma situations, ‘drawn primarily from single case studies and illustrated with selective examples from different governments and time periods’ (Bryson et al. 2017, p. 649). Stewart (2006) discussed three coping strategies named by Thatcher and Rein (2004) ‘Firewalls, cycling and casuistry. Stewart adds three more strategies to their list: bias, hybridization and incrementalism. de Graaf, Huberts and Smulders (2016) added a 7th coping strategy, named escalating. Combining these studies we arrive at the following seven coping strategies:

- a ‘bias’ strategy or a specific type of trade-off that gives preference to values that are consistent with a dominant discourse or larger value set at the expense of other conflicting values;
• a ‘building firewalls’ strategy of appointing different institutions, administrative units or individual positions aimed at certain public values in order to distribute responsibility for pursuing the competing values;

• a ‘cycling’ strategy of paying sequential attention to competing values;

• a ‘casuistry’ strategy of making decisions for each particular value conflict based on their experiences in previous cases and in doing so crafting a customized response based on those examples;

• a ‘hybridization’ strategy of seeking coexistence between values by sustaining distinct policies or implementations that pursue these competing values;

• an ‘incrementalism’ strategy of slowly putting more and more emphasis on one particular value;

• an ‘escalation’ strategy of elevating questions about competing values to a higher administrative or legislative authority.

In this discussion on the literature we firstly discussed the theories around public value dilemmas and what the expectations are of co-production for value creation. Secondly, we found a framework of coping strategies, which may be used to conceptualise how co-producers cope with the value dilemmas they experience.

3. Methods

3.1 Case selection, population sampling and data collection

Several scholars have previously discussed co-production approaches in healthcare services (e.g. Dunston e.a. 2009; Amery 2014, Butler & Greenhalgh 2014, in Bataldan e.a. 2015, p. 2, Loeffler e.a. 2013). In comparison with the attention provided to co-production in healthcare and the improved partnership between patients and clinicians (e.g. Braddock 2010; Carman e.a. 2013), far fewer scholars focus on co-production of social care (e.g. Needham & Carr 2009; Ross e.a. 2013) even if many co-production initiatives can be found in practice.

While co-production is not a new delivery mechanism for social care services, it is gaining more and more popularity since it affirms and supports an active and productive role for users of the services. Additionally, co-production in care services values the active input of stakeholders and users in delivering the outcomes of the services, whereby the desired outcomes are negotiated with the users of the service (Needham & Carr 2009, p. 6).

The case studied is “Connected Care” (CC) and has the aim of integrating and de-isolating frail elderly, a policy field where co-production initiatives are multiplying in Flanders. In CC co-production is situated in a small city and informal social care is organized by the users themselves, upon invitation by the local service professional. Next to de-isolating and integrating frail elderly, the objectives of CC is to empower the service users and minimize the financial burden for government and persons in need by collaborating with users or their
relatives. CC fits in the mutual aid approach model by Boyle et a. (2006), wherein professionals continue to play a key role, but the added value of the co-production process comes from mutual aid or users’ peer-support.

The first step in our case study was to create a snapshot of all actors involved in the service production of the CC initiative and to select the respondents (see Table 2). One paid public professional is the initiator of the project, there are 80 citizens involved in the co-production of which 76 are active participants and 4 are next to being active participants also seating in the coordinating committee. CC has a steering committee, which exists out of the public professional (R9), the volunteer (R10) and four participants from the target group (R4, R7, R8, R11). This committee has the task to coordinate and expand or deepen the network, and aims to do this in direct interaction with the other participants. The volunteer, has a professional background as a social worker. For a study project she helped working out CC, and after this project ended, she decided to keep being engaged as a volunteer. Considering her background as a social worker and her role and tasks she takes up in the initiative, we consider her a public professional.

Table 2. Snapshot of the population of the case Connected Care

<table>
<thead>
<tr>
<th></th>
<th># public professionals</th>
<th># citizen co-producers</th>
<th># citizen co-producers taking part in board meetings</th>
<th># volunteers</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1</td>
<td>76</td>
<td>4</td>
<td>1</td>
<td>82</td>
</tr>
<tr>
<td>Respondents</td>
<td>1 (100%)</td>
<td>11 (18,75%)</td>
<td>4 (100%)</td>
<td>1 (100%)</td>
<td>17</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>8 (/64 = 12,5%)</td>
<td>3 (100%)</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>3 (/12 = 25%)</td>
<td>1 (100%)</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

We conducted semi-structured interviews with citizens and public professionals actively engaged in the co-production case. For this study we interviewed the public professional and the volunteer involved, the four citizen co-producers who are taking part in the coordinating meetings, and 11 other citizen co-producers. One of the conducted interviews was a joint interview with respondent 16 and 17. The aim of the qualitative research is to identify a wide range of perspectives rather than to be numerically representative. Therefore, when noticing that still new information was revealed in the interviews, we continued selecting new respondents. We did so until we found to have conducted enough interviews as no new information was provided with respondents referring to the same values, tensions and coping strategies. The respondent list and their corresponding characteristics are presented in the appendix (Table A).

3.2 Data analysis

A thorough analysis of the interviews is carried out by making use of the software programme NVivo (QSR NVivo 10). Codes were created on the basis of the theory and on the bases of phases of open coding and axial coding applied to the data (cf. Strauss & Corbin 2008). In the coding process attention was paid to subconscious accounts of values, and implicitly mentioned dilemmas and coping strategies (cf de Graaf & Paanakker 2014). The final code list is the result of (1) the literature review and (2) phases of open and axial coding as seen in table 3.
### Table 3. Codes and subcodes for the interview analysis.

#### Codes and subcodes for the interview data

**Expectations public values**
- Better services
- Better relationship
- Better democratic quality
- Better social care services

**Reality of expectations**

**Dilemma situations**
- Better services
- Better relationship
- Better democratic quality
- Better social care services

**Considerations dilemma situations**
- The rules and procedures of the administration
- Practicalities (capabilities, resources etc.)
- Demand shyness
- Working with others
- Ownership
- Role perception
- High demand or pressure on individual co-producer

**Coping strategies**
- Bias
- Building firewalls
- Cycling
- Casuistry
- Hybridization
- Incrementalism
- Avoidance/Drop-out
- Deferred coping

**Considerations coping strategy**

**Confounding variables**
- Public professional
- Volunteer
- Citizen co-producer
The qualitative analysis follows an iterative, open process\textsuperscript{18}. The theories on the public values expected to be created from the co-production and the theories on coping strategies are used as conceptual lenses in order to identify the value dilemmas and adhered coping strategies. Additionally, in the analysis of the data we were open for new insights.

Because of different role perceptions we expect the dilemmas experienced by public professionals to be different from the ones experienced by the public professional. For this reason we analyse the expectations, value dilemmas and coping strategies separately for the public professionals (paid public professional and volunteer), citizen co-producers (11 respondents) and the citizens active in the coordinating committee (4 respondents).

4. Case “Connected Care”

A survey of the needs of the elderly population, ordered by the municipality revealed that 17\% of the elderly in the municipality suffer from loneliness\textsuperscript{19}. As a result of the insights provided by this study, a civil servant of the municipality - together with a subsidized third sector organisation (TSO) specialised in setting up participatory trajectories and a university college – initiated Connected Care. Key principles of this initiative were the involvement of the target group by valuing their capabilities, reciprocity and the (inter)connection between people and organisations.

After the design and set-up phase, the TSO and university college were no longer involved and the project is now executed by one paid public professional, one volunteer and 80 participants from the target group. Connected Care identifies itself as a network of people and each inhabitant of the municipality, irrespectively of age, origin, gender or education may join. Although the initiative primarily targets elderly people of the village, all ages are thus welcome to join. The youngest participant is now 39 years old (°1978) and the oldest 94 years old (°1923).

The idea of CC was primarily to connect demand and supply among the elderly. This was operationalised through publishing the direct demands and offers of participants in a monthly magazine and on a website, or through meeting each other in the monthly meetings or weekly workshops or “buurten” (drinking coffee together in the meeting rooms at local care centres).

5. Results

5.1 The expectations the co-producers have towards public values

CC aims to empower elderly, de-isolate elderly, and decrease financial burden both for the

\textsuperscript{18} However, it is necessary to control for investigator bias. In order to ensure the validity of the coding process, three interviews will be coded parallel by an independent researcher.

\textsuperscript{19} 46788 elderly people from 99 cities and municipalities were surveyed in function of a study of the needs of the elderly population. For the methodology of this study we refer to Verté e.a. 2007, and for a discussion of the results to Buffel e.a. 2011.
elderly and for the municipal organisation. They want to achieve these goals by creating values such as mutual aid, equality (assets) and social capital. In this section we discuss the public values that the respondents expect the create in co-producing the service.

5.1.1 Better services

The public professional and volunteer first and foremost found it important to creating “feeling good”. Satisfaction seems to be a good measurement for the success of the project: “it is important that people feel involved because it gives a good feeling” (R10, see also 4, 8). This is in agreement with the citizen co-producers who expect satisfaction is created by gaining private value and feeling that the initiative is considerable for their needs (R16, R5). This satisfaction and quality of the service seem to be coherent with effectiveness: the citizens expect CC to help them be de-isolated (R4, 5). Citizens want to gain qualitative information on certain topics important for elderly population, for example “on inheritance rights instead of drinking coffee” (R5). Furthermore, the public professional stressed the importance of being effective and grants flexibility to the process in order for it to be effective: “It is important to ensure growth and sustainability by ensuring flexibility” (R9, also 10) and to ensure outcome effectiveness. For example, first the initiative’s goal was to connect demand and supply, and while this is still in practice, it showed that organising joint meetings was far more effective in de-isolating the participants and in improving their social capital (R9, 1), resulting in an increased focus of CC on organising such meetings. Respondents made no direct reference to finding efficiency of high importance, yet indirectly the interview data shows that efficiency seems to be expected, when asking about the considerations behind the respondents actions and thought.

5.1.2 Better relationship between professional and citizen

Most citizen co-producers expect the initiative to be considerate of their needs. The public professionals alike attach great importance to being responsive and facilitate this by being flexible: “CC is about growth and being responsive to people’s needs and not to what we want” (R9, also 10). The professionals expect from the participants also to be responsive to each other’s needs “we involve the participants often because they are CC, we are not, we just offer a little framework but they have to execute the service” (R9). Citizen expect this trust from public professionals to take matters into their own hands (R1, 2, 5) which goes hand in hand with mutual learning: “you have different people with different experiences that may give you advice on certain things” (R6, 9). Moreover, trust in the coordinating committee is expected: “I expect a strong board, which stays small, but strong, which steers the main activities and where you may present your issues if necessary” (R16). Respondents expressed that the public professionals and the board meetings are held accountable: “I want to be critical and ask why certain things are necessary” (R5, also 16).

5.1.3 Better Democratic Quality

Empowerment and social capital were identified as better democratic quality values expected from CC. From the interview data both public professionals and citizen co-producers expect
these values to be co-created. The public professional stresses the importance of equality in the co-production which is coherent with empowerment: “we need to get rid of the positions of public professional and clients [...]. It is important [to] empower people in CC to help others, who through this also become professionals” (R9). The public professional expects that the co-production will increase democracy in the care delivery: “the project needs to operate [...] through the active participation and consultation of the participants” (R9). Additionally, she expect the project to increase equity in access “since there is still a part of the population which is not reached by [TSOs]” (R9). A convergent value is expected to be diversity by inviting people from all ages and “not exclusively elderly people” (R9).

The co-producers expect the elderly to feel empowered since the capabilities of the participants are taken as a starting point (R16, 13, 17). Social capital building is by most participants expected from the co-production (R3, 2, 5, 14, 13, 7). Next to “feeling that you belong somewhere” (R13), this social capital is necessary also for achieving private value such as “going to the store, doing household tasks, being busy doing something” (R3) or “to be able to live as long as possible at home, for financial reasons” (R2). Other democratic values mentioned by the citizens, for example, are democracy: “I don’t know if it is accepted, but I would like to be able to go to the steering committee and ask them critical questions” (R5). Finally, citizens expect equity of access to the co-production process: “all people are welcome” (R16).

5.1.4 Other expectations not yet included in the clusters of values

In addition to the values expected from co-production that match the literature, we identified values particular to the co-production in the social care sector.

First, there is an expectation for the creation of the value of reciprocity. Reciprocity, according to the public professionals, means to achieve a balance in the whole rather than between individual contacts (R10, 9). Also the citizen co-producers expect “The network [to] function on the basis of reciprocity” (R16) which may also be achieved by being appreciated for the efforts they put in (R16, 13, 7).

Both public professionals and citizen co-producers expect to participate according to their own capacities and to recognize these as assets, which is a second value expected to be created from co-producing in the care sector: “approaching citizens and appealing them on their capabilities and talents” (R9).

Thirdly, co-production in care is expected to be sustainable, according to the public professional: “although we don’t know how this will work out, sustainability is key” (R9). Citizens also expect the co-production to be sustainable (R2, 16), especially those citizens who are currently taking on a more caregiver role expect to get the favour returned in the future (R6, 14, 2, 7, 8) which shows a match between their focus on sustainability and self-concern.

Finally, the interview data showed a fourth value that both public professionals and citizen co-producers expect in the co-production process: individual freedom. This individual freedom entails the choice of when to co-produce, how to co-produce, how much to co-produce and not being obliged to do anything: “there should be no obligations, otherwise I don’t want to be involved” (R7, also 15, 4, 7, 8). For the public professional this value is important to ensure equity in access “everyone can participate in his own manner” (R9).

In sum, these values are similar to the definition of Ross e.a. (2013, p. 8) of co-production in
social care as a set of values that should be attained: equality (everyone has assets), diversity, accessibility and reciprocity (see also Loeffler 2009). The principle of reciprocity is often seen as a key concept in care co-production. Ross e.a. (2013, p. 13-14) state that reciprocity “has been defined as ensuring that people receive something back for putting something in, and building on people’s desire to feel needed and valued”.

5.1.5 Discussion of actors’ expectations

Adding to table 2, the values expected to be created which are specific to our case study in the care sector, we arrive to the following table:

Table 4. Expectations towards creating public value in co-production

<table>
<thead>
<tr>
<th>Better Services</th>
<th>Better relationship between citizen/costumer and the professional organization</th>
<th>Better democratic quality</th>
<th>Specific to care sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td>Learning (mutual)</td>
<td>Democracy</td>
<td>Sustainability</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Trust</td>
<td>Empowerment</td>
<td>Reciprocity</td>
</tr>
<tr>
<td>Outcome oriented</td>
<td>Being considerable for clients’ needs: accountable, responsive and transparent</td>
<td>Fairness</td>
<td>Individual freedom</td>
</tr>
<tr>
<td>Process oriented</td>
<td></td>
<td>Equity</td>
<td>Being considerable for clients’ capacities</td>
</tr>
<tr>
<td>Quality</td>
<td></td>
<td>Social capital</td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Many of these expected values are actually received by the co-producers in the CC initiative. For example, all participants claim to have gained social capital. Additionally, the perception of a decreased isolation of these elderly is existent. The achievement of these values is characterised by satisfaction. However, some values seem difficult to co-create. For example, only a small number of male participants are involved, raising questions on the equity of access. Additionally, the opportunity for an individual to create social capital is claimed to be decreasing when more and more participants join, because contacts become more superficial. Furthermore, quite a few respondents raise questions on the process effectiveness of the method to link demand and offer. Other respondents feel that a great need for meeting during the weekends is not being considered.

In the next section we discuss how respondents experience some values to be conflicting with each other and how these dilemmas may explain the difficulty of creating some of the values expected.

5.2 The public value dilemmas experienced in co-production

5.2.1 Public professionals

Analysing the data of the interviews of the public professionals (R9 and 10) we arrive to eight value dilemmas. Three of them involve the value of efficiency and three involve the value of individual freedom.
A) Dilemmas involving the value of efficiency

Efficiency, although not desired directly by the public professionals as a value to be created through the co-production initiative, is perceived as a value to take into consideration. The reality of limitations in resources available, leads to dilemma’s when confronted with the values of effectiveness, equity and sustainability experienced by the public professionals.

First, efficiency considerations are conflicting with effectiveness. The activities are mostly organised during the week and during the office hours of the public professional, because in the weekend the public professionals do not have time to organise events (R10 and 9) “I do have a home to take care of” (R10). However, most of the respondents say they are suffering most from loneliness in the evenings and weekends: “what I do find too bad is that these things only take place during the day, and it is during the weekend I am most lonely and most in need of activities” (R13, also 40). Another example is the demand and offer method, which is efficient in that it clusters all demand and offers of the participants. However, the public professionals do experience that the efficiency considerations around the demand and offer method are not process effective and thus also not outcome effective: “it seems to be very difficult to ask somebody something. I keep wondering what might be the solution to this and how to make it more effective, because I do believe the helping part is essential” (R9). The public professional acknowledges the importance of process effectiveness, but finds this to be restricted by efficiency considerations. Increased co-production would be the way to go to balance out this dilemma, according to the public professional who states that “we need participants who can follow up other people because we can’t always do that, we need members that can take over part of our tasks. That is the big problem: we need more time to put energy in this” (R9). Again efficiency considerations prevent this from happening, as the public professional states “it is not like with a professional to who you just say what his or her task involves” (R9) she points out that citizen co-producers need extra supervision and training to take over some or all of the tasks.

Second, efficiency considerations are conflicting with the value of equity. In order to get to the most structurally isolated elderly more time and effort is needed from the public professional: “a lot of effort is needed to involve them. There are, however, no resources [in order] to get them here and to keep them here” (R9). Additionally, time to address the problem is also missing: “maybe the offer is too female-oriented. We thought it might be a good idea to have a meeting with the male participants and see what we could change. But up until now, this has not taken place” (R9). This problem of equity in access is also related to the dilemma between efficiency and effectiveness: “the most isolated elderly need a different approach” (R9).

Third, efficiency considerations are conflicting with sustainability. The initiative was initiated on the basis of project subsidies. This made the public professional worry about sustainability of the project, which is perceived as an important value when co-producing with elderly. “it was very important to make it possible and to enable growth and sustainability. That is why the co-production was very important” (R9) The public professional shows to be uncertain about the sustainability of the initiative, as she expects a continuous supervision (and thus a full time position) will be necessary.
B) Dilemmas involving the value of individual freedom

According to the two professionals interviewed, the value of individual freedom conflicts with three other values: reciprocity, social capital and process effectiveness.

First, individual freedom conflicts with reciprocity. According to the public professionals only 4 out of the 80 participants are prepared to stand by to assist other people when it is urgent or apparent: “this is very little, especially when these are also all elderly” (R10). That participants are free to choose what they do thus has proven to limit reciprocity: “I still wonder if the demand and offer method is the way to go. People always need a choice to say yes or no” (R9) and “it are always the same people putting effort in” (R10).

Second, the value of individual freedom, while supporting the equity in access, is in conflict with the value of social capital, a necessary outcome value for the initiative to be effective. For example, the professional indicates that “we do not want that friends sit together when there is a group meeting. This is because we want them to get in contact with other people, so that they [...] include other people” (R10, also 9).

Third, individual freedom is experienced by the public professional as conflicting with their desire to be process effective. Many participants do not show up with the result of not being fully integrated in the group. Nevertheless, individual freedom does contribute to being outcome effective: “Sometimes people complain about others not coming to group activities. But if you join CC, then you may do so on your own pace” (R10).

In addition to dilemma’s experienced involving efficiency and individual freedom, two other dilemmas were identified as experienced by the professionals.

C) Being accountable vs. Trust in capacities

It is one of the major principles of Connected Care to take the capacities and interests of the members as a starting point. However, the accountability does remain with the professionals and this means that often the public professionals do not always trust the citizen co-producers: “I expected in advance that it would be necessary for me to keep an eye on them while they co-produce the activity” (R10).

D) Responsiveness vs. Sustainability

Finally, being responsive to citizens’ needs makes it difficult for the services to be sustainable: “the coffee-afternoon was cancelled because citizens didn’t come anymore. So now that we scratched it as an activity, people want it back” (R9).

5.2.2 Citizen co-producers

From the interview data we arrived to nine value dilemmas experienced by the citizen co-producers. All dilemmas involve at least one of the values that are expected to be created in social care services: individual freedom, reciprocity, being considerable for citizen’s capacities and sustainability. Five of these value dilemmas involve the value equity in access, four individual freedom and three reciprocity.
A) Dilemmas involving the value of equity

First, citizen co-producers experience that equity in access or welcoming everyone to participate may limit the creation of social capital. Their reasoning is that the more people join, the harder it gets to get to know everyone. In a discussion between two respondents this experience becomes clear:

- “I do not think we should open up more, we should invest in what we have and make sure to strengthen the relationship between the people who are participating” (R16).

- “I have the same idea, we are already with enough, but of course, if someone wants to join we cannot tell them they can’t” (R17).

Second, citizens experience a dilemma between equity in access - “everyone is welcome” (R17) – and the quality of the service - “we should first work out what we have with the people that are involved before broadening our scope” (R16). Additionally, it is feared that some individuals may reduce the quality of what is co-produced: “no trouble-makers should enter, that can ruin the beauty of the project” (R17).

Third, there is a dilemma experienced by the citizen co-producers between equity in access and efficiency. For example, one respondent explains that “there should be a limit to the people that can join because so many people never come to meetings and them being officially members [i.e. they receive birthday cards etc.] costs us lots of time and energy” (R16, also 2).

Finally, the value of equity is also in tension with the value of reciprocity in the perception of citizens. For example, in line with the value of equity in access the activities are free for participants and one may not ask money for the assistance provided. However, there are citizen co-producers who frequently depend on others for transport. For these citizens it is hard to create the value of reciprocity since they feel they have “nothing to give back” (R17, 12, 3, 11), while opposite, the drivers risk perceiving they do not receive the value of reciprocity since “they know how much they pay at the gas station” (R16).

B) Dilemmas involving the value of individual freedom

First, individual freedom is experienced to be conflicting with social capital (R5, 14, 1, 16). Some respondents do not participate because they are not interested in specific activities (R5). Thereby these co-producers risk not meeting new people, one of the motivations for his or her co-production. This is strengthened by the fact that some citizens have formed groups and for new people it is really hard to integrate in these groups: “the fact that anyone can do what (s)he wants, makes some people less likely to integrate in the group” (R1).

Second, individual freedom is perceived as conflicting with sustainability: “people do not want to be bound to something, especially not young people. But you do need people to keep the organisation going” (R2).
Finally, citizen co-producers see the value of individual freedom as a necessary condition to participate in the initiative, yet feel this to be conflicting with the reciprocity as an expected created value. Respondent 2 discusses the dilemma: “people who participate only occasionally risk being excluded from the group” which results in them being less involved in the offer-demand exchange. Respondent 7 indicates that he highly values reciprocity, but only insofar it does not conflict with his individual freedom to engage: “If I say I can help I will help, but if I don’t help then I don’t help”.

Individual freedom is thus experienced by the citizen co-producers as being conflicting with the initiative’s outcome effectiveness, referring to social capital building, de-isolation of elderly, reciprocity, and sustainability.

C) Dilemmas involving the value of reciprocity

Next to experiencing a value dilemma between reciprocity on the one hand and individual freedom or equity on the other (as described above), citizen co-producers also experience a value dilemma between reciprocity and accountability. Some respondents (R16, 17, 1) claim there is a limit to the value of reciprocity. These citizens find themselves accountable when letting a fellow co-producer help them: “you need to draw some kind of line, [...] you cannot take the risk to go take a walk with an 80-year old” (R1).

D) Democracy vs. efficiency:

Respondent 16 expressed a dilemma between efficiency and democratic value: “Things should work democratically, and this cannot be done when things have to go fast” (R16). Respondent 16 was the only citizen co-producer reflecting on this dilemma. However, one member of the coordinating committee (R8) also expressed this issue.

5.2.3 Coordinating committee

From the interview data we find that the members of the coordinating committee interviewed experience two dilemmas involving the value of efficiency and two values involving the value of individual freedom. These are the same dilemmas as experienced by the public professionals, except for the dilemma between efficiency on the one hand and trust and democratic value on the other hand.

A) Dilemmas involving the value of efficiency

First, similar to the public professionals the member of the coordinating committee experience a value dilemma between efficiency and effectiveness. They question if the
demand and offer method is the most effective to achieve outcome values, although it seems to be the most efficient (R4).

Second, is the perceived dilemma between efficiency and trust. Although the board members acknowledge the need of being efficient in making (changes to) decisions, they experienced the fact that public professionals to communicate decision they make with the user group without consulting the board to conflict with the values of trust and democracy: “I think they [the public professionals] at least need to warn you and keep you up to date” (R8).

B) Dilemmas involving the value of individual freedom

This first conflict experienced by the committee members involving individual freedom is the same dilemma as experienced by public professional and citizens, i.e. when people form groups this excludes (new) participants limiting the creation of social capital (R4, 8).

The second way in which individual freedom conflicts again is similar to the experience of the other actors. The individual freedom may have as a consequence that people are not being helped or do not receive help in return (R7, 4). For example, “the oldest person is 90, you do not expect her to stand up and clean tables, but from the younger people you expect them to do something. [...] but nobody is obligated to do something here, so that is the end of it” (R4).

5.3 Coping strategies used when co-producers are confronted with value dilemmas

In the analysis of our data we did not only study the values and value dilemmas but also at the coping behaviour citizens co-producers adhered to when they were asked how they deal with the dilemmas they experience. The results of the interview data indicate that co-producers cope differently with the dilemma’s they experience. In this section we discuss more into detail what are the coping strategies of the different actors when dealing with the value dilemmas.

5.3.1 Public professionals and their coping strategies

Based on the literature we identified 7 coping strategies. All of these were found in the interviews with the public professional and the volunteer. We found one additional coping strategy, where public professionals defer coping with value dilemmas and express a desired coping strategy which they hope to adhere in the future, we refer to this as “deferred coping”. We use only a few examples to discuss each coping strategy, nevertheless there are more examples to be found in the collected data.

First, the public professional and volunteer cope with several dilemmas according to a bias strategy, where some values are preferred according to a dominant value set. This is at expense of other values. The public professional believes she has an important role here: “my
role is to guard these values, to guard co-creation, democratic decision making, inclusion, believing in capacities of elderly, in openness, in trust, in diversity”. The example most discussed by the respondents (R9 and 10) involved the values individual freedom and social capital. From the following statement the bias strategy becomes clear: “I am preferring the value of social capital […]. I do so because it’s in function of getting to know each other and inclusion. I am aware that because of this some people choose not to come to the upcoming general meeting. But if we cannot get through exclusion this project can end in my opinion” (R9).

Another way of coping is biasing with the aim of coping according to a casuistry strategy in the future. In a ‘casuistry’ strategy decision are made for each particular value conflict based on experiences in previous cases. R9: “But it was a study day so it had to be good. But I thought, okay let it go and trust [the citizen co-producer], if it is not good it is not good and then we learn from it as well” (R9). In this case the public professional experiences a dilemma between trust and accountability and is biasing the dilemma in favour of trust. A way in which casuistry did lead to the overruling of one value over another was the following: the public professional experienced from the previous general activities that because of individual freedom there were citizens who were not receiving value of social capital or inclusion: “therefore we have agreed with some of the [citizen co-producers] to again have fixed seating arrangements so you cannot choose where to sit” (R9).

A third way in which public professionals cope with value dilemmas is by building firewalls. Individual freedom is limited in the general meetings, but not with regard to taking part in the activities. In this manner the public professional builds firewalls as to where which value is created. In the general meetings inclusion is created through the creation of social capital. In the membership to the program inclusion is guaranteed through the creation of individual freedom. Finally, the public professional also build firewalls by stressing the limits of the project with regard to equity in access: “these are the limits of CC: to get structural isolated people out of isolation. It is thus important that other caretakers and services keep visiting this people” (R9).

Cycling is a fourth strategy through which the public professionals show to deal with value dilemmas. Because of efficiency considerations the initiative often cycles between different value creating activities and therefore gives sequential attention to these values. By doing this the public professionals can be responsive to their client’s needs: “I think it has to be possible to make the content of the activities vary according to the moment”.

Another and fifth way through which the public professional is coping is hybridization, a strategy in which co-existence between values is being sought. For example, the dilemma between efficiency and effectiveness may be balanced out by empowering people to co-produce in the management of the service. Still, there is some hesitation because “it is not sure this would work” and the public professional is therefore deferring this coping strategy, in that she is postponing the actual coping with the dilemma.

Sixth, the interview data shows that public professionals also deal with dilemmas according to a strategy of incrementalism. When citizens express their dissatisfaction with the limitation of their individual freedom, the public professional explains why they are doing this and expresses the importance of the value to the participants. The public professional claims that in the future “we will keep explaining them why we choose for fixed seats in the general meetings, I will invite them all in order to explain the reasoning behind this decision”. By doing so, the public professional slowly puts more and more emphasis on one
value and therefore expects it to be created by all co-producers. Also for the creation of the value of reciprocity the public professionals use a strategy of incrementalism: “We always said that they do not have to do this [i.e. give back] and that they definitely do not have to pay anything. We do feel like we have to do more to emphasize this then just tell them they do not have to. There have been certain ideas on maybe making vouchers or other things for those people who do not have the capacity to help others” (R9).

Finally, a strategy of *escalation* is being used to cope with dilemmas around accountability: “I always go to the coordinating committee with issues or to the [the public professional]. The latter is the responsible” (R10). Also the public professional discusses issues in the coordination committee and therefore escalates the issue partly.

In sum, the public professionals adhere to a variety of coping strategies to deal with value dilemmas. The fact that they can adhere to all of these strategies may be explained by the flexibility which characterises the project.

### 5.3.2 Citizen co-producers and their coping strategies

Generally, when the citizen co-producers are confronted with dilemmas they tend to either avoid the conflict by dropping out or escalate the problem to the public professional or the board. Some respondents did also adhere to other coping strategies.

On the one hand, citizens *escalate* problems, for example, when there is a dilemma between equity in access and quality of service, they expect the coordination committee and public professional to deal with this conflict. They expect conflicts to be taken care of by the public professional and the coordination committee because of (1) high pressure on the individual co-producers – “I already have enough people to take care of” (R17) - and (2) accountability – “if there is a conflict [the public professional] will help with the decision” (R1, also 16, 17). This may be partly explained by the fact that many dilemmas experienced by the citizen co-producers arise from working with others, and they thus feel in need of a neutral referee to overlook these issues.

On the other hand, some citizen co-producers do not escalate the issue but avoid dealing with it by considering to drop-out. For example on the tension between individual freedom and social capital: “if I have to do something because it is obligated, then I will quit” (R1, also 5). Others quit because participating in creating values for the group means not creating private values on safety and comfort: “I went really few times to the joint meeting, because you always had to go there or there and then I had to contact other people for transport.. no, I think that is difficult. I only go if someone asks me to come with him or her” (R3, also 11, 12). Or on the issue of the demand and offer method and its effectiveness: “I don’t put in any effort anymore” (R1) is also an expression of avoidance. Respondents also showed to avoid receiving assistance because of the value of reciprocity: “I rather not receive assistance because then I feel like I have to give something back”. Also, dropping-out often relates to working together with others “I cannot handle the pressure [another participant] puts on me. I thought about quitting” (R15, also 16 and 17).

Next to escalating and dropping-out, citizen co-producers also adhere to other coping strategies such as *biasing*. For example, R3 claims that “I do not count that much in the
bigger whole. The common interest is much more important than the specific interest” (also 16 and 17). A coping strategy of building firewalls was found in the interview data to be adhered to when citizen co-producers need to guard their own limits: “I am always very clear on what they can ask from me and I clearly tell them what they should ask to a professional” (R2, also 16). A coping strategy of cycling was also desired by the people in that the effort they put in now will return when they need it, and therefore they cycle between private and public value (R13). One respondent claimed that she learns from previous experiences in how to cope with certain conflicts. For example, she learned to ask for assistance from the public professional when too much pressure is put on her (R16). The respondent adhered to a strategy of casuistry in this case. Next, citizen co-producers also tend to want to hybridize certain values. For example respondent 13 experiences a dilemma between wanting to co-produce and helping out others on the one hand and the time she has available on the other hand. She copes with this dilemma by helping out when she can, even if it means after the activity is finished: “I can’t be present at the preparations, but this is impossible, so I help out after, for example by doing the dishes and cleaning the tables”(R13). Finally, the interview data showed that some respondents adhered to a strategy of incrementalism when dealing with value dilemmas. For example, on the dilemma between individual freedom and social capital R14 explained that “In the beginning I felt that my freedom was limited and I did not like it, but then I asked why they did this. When you know why then you start understanding and accepting why. Now I try to explain others and stress that the aim is that we all need to get to know each other” (also R5, 16).

5.3.3 Coordinating committee and their coping strategies

The data of the coordinating committee on coping strategies when dealing with value dilemmas does not show many differences with the coping strategies applied by the citizen co-producers. They build firewalls in order to guard their limits (R7) and tend to want to hybridize conflicting values (R5). The one difference is to be explained by their position in the coordination committee: rather than avoiding value conflicts they will escalate them to the coordination committee and the public professionals where they can decide on how the cope with the issue (R4, 7, 8). An argument for escalating to the public professional, rather than dealing with an issue in the committee, is that they “think that people will legitimize their decisions more”(R7) when they do so. Another coping strategy in accordance with the public professionals is that members of the coordinating committee bias those values which are in accordance with the ideals of the project, as respondent 8 states on the issue of the seating arrangements during the meetings “if you do not talk to other people, you won’t get to know them. And this is important to do because of the aim of CC: getting to know different people” (R8). Similar to the public professionals, they adhere to a strategy of incrementalism when they want to give preference to one value, for example, by explaining the reason to the other citizen co-producers and by organizing more activities through which this value is created: “I think we have to go deeper into explaining why we choose to [have fixed seating arrangements] by showing them their shyness is obstructing them in fulfilling their needs” (R4).

6. Conclusion
In this paper we started from the assumption that values are co-created in the co-production of public services. Co-production of care services is expected to co-create better services, a better relationship between public professional and citizen, better democratic quality as well as values related to better care services such as sustainability, reciprocity, individual freedom and equality. From the public administration literature we learned that values are often conflicting each other. The question asked in this paper was to which extent does co-production enhance or obstruct the creation of public values. In order to answer this research questions we studied the individual experiences of the public professionals and citizens involved in the co-production of informal care for elderly in a small size Flemish municipality.

This paper contributes to the discussion on the development of co-productive approaches by looking at processes and outcomes in public value co-creation. It gives insights in the individual co-producer’s experience of co-production and thus also in the opportunities and challenges for public values in the delivery of services.

Case studies offer the advantage of studying a phenomenon within its context, but have the disadvantage that they do not allow for statistical generalization (Eisenhardt & Graebner, 2007). Nevertheless, the analysis shows the relevance of value dilemmas and coping strategies for value co-creation. Insights in which coping strategies are used when confronted with which value dilemma can tell us more on the values that are at risk of not being created. In the results section we discussed (1) the values expected to be created in the co-production of social care, (2) the value dilemmas experienced by public professionals, citizen co-producers and member of the coordinating committee, and (3) the coping strategies these actors adhere to when confronted with value dilemmas.

The answer to the research question is that co-producers are confronted with value dilemmas and in coping with them they may fail to create some of their values they expect to create by co-producing the service. The results show that a variety of value dilemmas are experienced by all actors and that they all adhere to a variety of coping strategies. The values that are conflicting most are: efficiency and effectiveness, individual freedom and outcome effectiveness; and equity in access and outcome values such as social capital, reciprocity and quality of the service. Our results show that it is not self-evident that co-production forms a solution for public value dilemmas. Unfortunately, co-production of services still functions in a context where efficiency considerations are a necessary evil and lead to value conflicts. Furthermore the co-production of care services brings with it additional expected values such as reciprocity, equality, accessibility, individual freedom and sustainability, which again may conflict with each other and with the other expected public values.

The public professionals adhered to all coping strategies found in the literature when dealing with value dilemmas. However, they often showed that they defer coping due to a lack of time, i.e. they express a desired coping strategy, but do not yet follow up on it. Alike citizen co-producers adhere to all coping strategies, yet they mostly adhere to an escalation strategy and thereby move the conflict to the public professionals or an avoidance conflict, not dealing with the conflict at all. This suggests that the accountability for value creation stays with the public professional.

Our data suggests interesting insights on how value dilemmas are obstructing value co-creation. Future research should focus on the importance of the following aspects in value dilemmas and coping strategies.

(1) In addition to certain values being in conflict with each other, many of the examples given
in the analysis show that public values are often related to each other in a convergent way, both in positive and negative sense. This may mean that a value dilemma may have consequences for other values that are not directly conflicting but are convergent with one of both values in conflict. For example, in our case study we found that when individual freedom is created satisfaction is also created, and when individual freedom is neglected satisfaction may disappear. Thus, when individual freedom is in conflict with many other values, as did our results show, these values indirectly also conflict with satisfaction.

(2) There were many other factors found limiting the creation of certain values. For example practical issues such as a person’s health and abilities, but also working together with different people, a high demand put on individuals, demand shyness (and non-take up resulting from this) and non-appreciation all seemed to limit the citizen co-producer in creating private or public value. Future research should focus on how these factors are influencing value creation and what is the best way to reduce those obstacles.

(3) In addition to the value dilemmas experienced by the individual co-producers, value dilemmas also occur outside the individual perspective, between the different perspectives of the citizen co-producers. Future research should study in what ways these value expectations are conflicting and how dilemmas between expectations of different actors may obstruct value co-creation. For example, some of the respondents are concerned mainly with creating private value, while this might be in conflict with the desire of others to create public and private value for others.

(4) Another way of looking at value co-creation and its obstructions might be to look at the value conflicts between private value creation and public value creation. For example, a value conflict that strongly emerged from our data was one were the citizen co-producers wanted to create private value by focussing on their individual freedom to sit where they wanted and talk to who they wanted. The public professional, however, wants to create public value by focussing on social capital in the community of elderly and did not allow free seating.

(5) Finally, from the results it was clear that the public professional perceived her role as facilitating co-production and guarding public values. Therefore, we suggest that future research should look into the effect that the role perception of the different actors has on the values created and the coping strategies adhered to.

Acknowledgements

We would like to thank all actors involved in “Connected Care” for participating in this study.

Bibliography


**Appendix**

**Table A. Respondents**
<table>
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<th>Respondents</th>
<th>Sex</th>
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Service Provider Perspectives on Coproduction and its Outputs (Jo, Lee, and Nabatchi)

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Introduction

Coproduction, an umbrella term that captures a wide variety of activities that engage state and lay actors in commissioning, designing, delivering, and/or assessing public services (Nabatchi, Sancino, and Scilia 2017), is often lauded for its potential to generate benefits for users, providers, and services (Bovaird 2007; Voorberg, Bekkers, and Tummers 2014). Despite such claims, however, empirical evidence of such benefits is rare (Bovaird and Loeffler 2016; Brandsen and Honingh 2015; Jo and Nabatchi 2016). Among the many gaps in research are studies that examine service provider perspectives on coproduction – we know very little about whether they believe in its potential and how they assess the quality of its outputs.

This paper begins to fill those gaps by addressing three research questions: (1) Do providers believe in the potential of coproduction? (2) How do providers assess the quality of coproduction outputs? (3) Do providers and lay actors differ in their assessments of the quality of coproduction outputs? To address these questions, this paper reports on some of the results from a larger research project funded by the U.S. Agency for Healthcare Research and Quality (AHRQ) about patient engagement and diagnostic error. To answer the first question, we assess providers’ beliefs and attitudes about user empowerment and activation in the diagnostic process. We also examine their willingness to utilize outputs coproduced by service users in their own medical practices. To answer the second and third questions, we examine providers’ assessments of the quality of the recommendations for reducing diagnostic error (coproduction outputs), in terms of understandability, likelihood and ease of use, and potential impact on diagnostic quality, and compare their responses to those of healthcare consumers. By addressing these questions, this study contributes to both the theoretical and empirical literature on coproduction, particularly in terms of understanding provider perspectives on coproduction and its outputs.
The paper proceeds as follows. First, we explain the theory of coproduction, using the logic model approach implicit in the concept, and demonstrate the need for more studies on service provider perspectives on coproduction and its outputs. Second, we develop our research hypotheses based on the literature on coproduction and public participation. Third, we briefly introduce our overall research project and the sessions conducted for this paper. Fourth, we explain our data, measures, and methods for hypothesis testing. Fifth, we present and discuss the results. We conclude with a discussion of the limitations and contributions of this study.

The Theory of Coproduction

Used in a variety of settings from education to healthcare to waste management, coproduction has become an important reality in public management. Although coproduction is defined in diverse ways, most highlight the involvement of both service users (the public or lay actors) and service providers (public service professionals) who act as partners in the delivery of services (Alford 2014; Bovaird 2007; Bovaird et al. 2015; Sharp 1980; Thomas 2013). This idea is well captured by Bovaird’s (2007: 847) definition of coproduction: “the provision of services through regular, long-term relationships between professionalized service providers (in any sector) and service users or other members of the community, where all parties make substantial contributions.”

To understand the state of theory with regard to coproduction, it is useful to examine the logic model implicit in most definitions: the actors (i.e., service users and providers) work together to provide inputs (e.g., articulations of interests and needs; information; resources) about the service under consideration, which generates outputs (e.g., a list of priorities or recommendations; a plan or a protocol) that in turn create outcomes (e.g., individual level impacts on actors; service changes). Of course, the nature of the inputs, outputs, and the
outcomes varies depending on the type of coproduction process being used, for example whether it is used at the individual, group, or collective level and whether it occurs at the commissioning, design, delivery, or assessment phase of the public service cycle (e.g., Nabatchi, Sicilia, Sancino 2016; see also Brudney and England 1983).

This logic model approach is not only a generalized description of what happens in coproduction, but also is the basis on which the theory of coproduction has been developed thus far. On the user side, for example, the general theory is that through active involvement in the process of coproduction, lay actors provide inputs on services, such as expressions of their needs and interests, which enable the production of services that better meet their desires and demands (Sharp 1980; Whitaker 1980; Brudney and England 1983; Levine and Fisher 1984; Pestoff 2006; Thomas 2013). This not only improves service-related outcomes such as user satisfaction and perceptions of quality, but also has individual-level outcomes such as increased user knowledge, confidence, self-esteem (Rich 1981; Percy 1984; Bovaird 2007; Van Ryzin 2011; Voorberg, Bekkers and Tummers 2015; Bovaird, et al. 2015).

Unfortunately, the general theory on the provider side is simply an echo of the theory on the user side: the voluntary participation of service users gives providers inputs that otherwise would not have been available (Sharp 1980; Bovaird 2007). These inputs allow for the provision of services that better meet user needs and that generate service-related outcomes such as efficiency, effectiveness, and cost savings (Brudney 1984, 1985; Percy 1983; Voorberg, Bekkers, and Tummers 2015; Whitaker 1980). Following this logic, and given calls over the last several decades to do more with less, coproduction has gained traction as an alternative to the traditional model of service provision (Brudney and England 1983: 59; Levine and Fisher 1984: 179), particularly when governments face resource constraints (Brudney and England 1983; Ferris 1984; Levine and Fisher 1984).
The problems with this fairly weak theory development are at least twofold. First, there is virtually no distinction in the theories behind user participation and provider participation. While scholars do recognize that the public and service professionals tend to have different interests and perspectives on the issues of public importance (Miller 2004; Moon and Welch 2005), provider views on engaging users in the service processes have been underdeveloped. Rather most theories on coproduction focus on users’ inputs and roles, given the explicit focus of coproduction theory that regards lay actors as a co-producer (see Voorberg, Bekkers, and Tummers 2015), which distinguishes the concept from the traditional model of provider-centric service delivery (Bovaird 2007). As a results of poor theoretical base on this matter, we have few empirical research on service providers’ views on coproduction.

Second, the theory of coproduction pays more attention to the objectives or desired outcome of coproduction, with less focus on outputs. A systematic review on coproduction reveal that previous studies have addressed definitions, types, objectives, drivers, and outcomes of coproduction (Voorberg, Bekkers, and Tummer 2015); no study has identified outputs generated through coproduction. This is unfortunate because the output is an important part of the production function of coproduction that should differ from other types of service production models (Kiser and Percy 1980). It links participants’ inputs with potential benefits of coproduction that otherwise could not be achieved, thereby making significant impacts on service outcomes.

To help address these gaps in theory development, and ultimately in empirical testing, this paper investigates service provider views on coproduction and the quality of its outputs. Specifically, this paper explores three research questions: (1) Do providers believe in the potential of coproduction? (2) How do providers assess the quality of coproduction outputs? (3) Do providers and lay actors differ in their assessments of the quality of
coproduction outputs? In the following section, we develop hypotheses about the answers to these questions.

Service Providers’ Perspectives on Coproduction and Its Outputs

The hypotheses explored in the paper center around two important constructs: (1) provider support for coproduction, and (2) provider assessments about the quality of coproduction outputs. First, in developing a theory of coproduction, it not necessarily useful to assume that providers will have a positive, or even a neutral, view on coproduction. In fact, there are reasons to believe that despite any potential benefits, providers might not hold favorable opinions on coproduction (Wilson 2001; Morris and O’Neill 2006). A study of coproduction in five European countries reveal that some providers do not even understand coproduction and regard the role of citizens in public service delivery as irrelevant (Loeffler et al 2008). This indicate that many professionals may be reluctant to accept coproduction as a standard practice. Second, by virtue of their education and/or professional training and experiences, some professionals believe that they have superior knowledge and expertise, and do not value the inputs of lay people (see Checkoway 1981). Participating in the process of service production and delivery often requires technical knowledge, which make lay actors’ participation less ideal (Irvin and Stansbury 2004: 62). Some scholars further argue that providers are less welcoming to user coproduction as they are reluctant to delegate power to the users (e.g. Moynihan, 2003; Wilson et al. 2006), in which case professionals safeguard their power by discouraging citizen engagement. Finally, providers may doubt that lay actors have the breadth and depth of knowledge needed to provide meaningful input, and thus doubt the potential of users to be resourceful assets (Alford 2002; Percy 1984). Moynihan (2003: 165) points out that there is a view that engaging citizens is considered “onerous requirement with little clear benefits.” In short, coproduction is often not well accepted or understood by
service providers, and even when they become aware of the concept, they are often reluctant to believe in users’ capabilities to participate in meaningful ways (Bovaird 2007).

As illustrated thus far, providers’ skepticism about engaging users might be predicated on the belief that users are incapable of contributing to improving the quality of services and that users do not have expertise to be involved in service processes. Having that said, professionals’ might change their opinions and recognize the potential of coproduction when they see the evidence that service users can create outputs of good quality. Fortunately, previous research has considered coproduction and the idea of engaging lay actors as potentially advantageous, especially when users make inputs that complements providers’ inputs (Chaebo and Medeiros 2016) and when professionals can learn from citizen-experts (see Irvin and Stansbury 2004). Furthermore, some studies show that citizen inputs have improved the quality of public services (Boyle and Harris 2009; Meijer 2012; Percy 1983; Vamstad 2012). Hence, we offer our first two hypotheses:

\[ H1: \text{Professionals will be skeptical about the potential of coproduction.} \]

\[ H2: \text{Professionals’ skepticism about the potential of coproduction will decrease after they see the outputs of coproduction (i.e., the recommendations).} \]

It is also important to determine how service providers assess coproduction outputs. Following the similar logic of providers’ skepticism on the potential of coproduction, we would hypothesize that providers are likely to give low ratings on the outputs generated by lay people. This is mainly due to the professionals’ assumption about users’ lack of knowledge and expertise (Moynihan 2003). To illustrate, they might perceive coproduction outputs as the product created by those who do not have professional training and experiences and who do not have appropriate knowledge about rules and procedures of
professionalized service delivery. Therefore, it is reasonable to assume that providers would have negative presumption about the quality of coproduction outputs.

In opposition to the providers’ views, lay citizens are likely to possess a positive prepositions towards coproduction outputs. Loeffler and her colleagues (2008) reported that citizens of five EU countries strongly believed their abilities in generating positive outputs through coproduction, while public managers had doubts on the role of citizens. Moreover, research suggests that lay actors not only want to contribute to public problem solving (e.g., Nabatchi and Leighninger 2015), but also that they can offer valuable input based on their specific knowledge, experiences, and pragmatic appreciation (Fung 2003; Gutmann and Thompson 2004; Young 2000). The quality of this input can be even stronger when offered through cooperative efforts that seek out aggregated knowledge, experiences, and diverse viewpoints, as is the case in collective coproduction. In the context of coproduction, Bovaird (2007) emphasizes that the ability of service users to provide inputs is greater than what public administers might assume. Taken together, we offer a second set of hypotheses:

\[ H3: \text{Professionals will give low evaluations to the outputs of coproduction.} \]
\[ H4: \text{Professional assessments of the outputs of coproduction will be lower than lay actor assessments. In other words, there will be a gap between service user and service provider perspectives on coproduction outputs.} \]

The Research Project

To test the hypotheses presented in the previous section and address our research questions, this paper uses data from a larger research project, Using Public Deliberation to Define Patient Roles in Reducing Diagnostic Error, which was funded by the Agency for Healthcare Research and Quality (AHRQ). The primary goal of the project was to engage healthcare consumers (i.e., patients or service users) in a collective coproduction process.
during which they developed informed and practical patient-focused recommendations for reducing diagnostic error (see Appendix 1 for the recommendations).

In addition to several other empirical examinations, the team sought to determine how others – including both providers and users – would perceive the quality of the coproduction output. Such an examination is particularly important within the context of collective coproduction – just because one group of service users developed and agreed upon a set of recommendations (the coproduction output) does not mean that providers and other users will find those recommendations to be valuable. In this project specifically, the team wanted to determine whether healthcare providers and consumers believed the recommendations for reducing diagnostic error were understandable, usable, and potentially impactful on health outcomes.

To do so, the team convened two groups of healthcare professionals. The first group met in November 2016 at the Diagnostic Error in Medicine (DEM) Conference in Los Angeles, California. A total of 18 professionals participated in the DEM group. The second group met in February 2017 at Crouse Hospital in Syracuse, New York. A total of 17 professionals participated in the Crouse group. Both events used a participatory focus group format, during which the professionals discussed diagnostic error and the recommendations developed by consumers.

Professionals completed three surveys during the events: (1) a pre-event survey, (2) a survey about the recommendations, and (3) a post-event survey. Pre- and post- event surveys

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21 Participants for the DEM group were recruited through an invitation distributed by the Society to Improve Diagnosis in Medicine (SIDM) to DEM attendees and by Kaiser Permanente to its Los Angeles staff. Attendees received a complimentary breakfast and some took advantage of an offer for complimentary registration to a professional development session at the DEM conference.

22 Participants for the Crouse group were recruited through an invitation distributed by Crouse Hospital to medical staff. Attendees received 3 continuing medical education credits (CMEs) and a complimentary dinner.
include questions that measure professionals’ beliefs and attitudes toward diverse issues of patient engagement and diagnostic error, and the recommendation assessment survey include questions that ask professionals of their opinions on various aspects of the recommendations from our consumer collective coproduction and two other sources. We did so to examine the efficacy of coproduced outputs, especially when compared with the one developed by professionals, and another one developed by lay actors without collective coproduction.

Specifically, the first additional recommendation set was developed by a professional healthcare organization; it was adapted from the Institute of Medicine’s (IOM) Recommendations for Improving Diagnosis in Health, which were released in September 2015. The second set was created from the written responses of a different group of project participants who only received education about diagnostic error. Specifically, in their post-intervention survey, the participants in this education-only group were asked, “What ideas do you have for how patients can help improve the diagnostic process?” The research team compiled all of the responses, sorted them, and created a representative set of recommendations. The three recommendation sets (Set A: Coproduction Recommendations; Set B: IOM Recommendations; Set C: Education Recommendations) are presented in Appendix 2.

The team also convened a participatory feedback session with 95 healthcare consumers, none of who participated in the coproduction process, on February 6, 2016. These consumers engaged in table discussions of 6-8 people and completed a short survey about the quality of the recommendations. We aimed to compare the consumer feedback group’s

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23 To create the IOM recommendations, the research team adapted the points under Goal 1: Facilitate more effective teamwork in the diagnostic process among health care professionals, patients, and their families. The full set of IOM recommendations can be found at http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2015/Improving-Diagnosis/Diagnosis_Recommendations.pdf.
responses with professionals’ responses, thereby observing the gap between professionals’ and lay actors’ perspectives on coproduced outputs.

We use survey data from the two participatory focus groups with healthcare professionals and the consumer participatory feedback session to test our hypotheses and investigate our research questions. The follow sections provide information on our data and measures.

**Data and Measures**

We draw on data from four surveys to test our hypotheses, including three surveys completed by healthcare professionals and one survey completed by healthcare consumers. Specifically, the healthcare professionals completed a pre- and post-event survey, both of which had a variety of questions capturing their *support for coproduction* (H1 and H2). Both the healthcare professionals and the healthcare consumers completed surveys that assessed their *perceptions about quality of the coproduction output* (i.e., the recommendations) (H3 and H4). We discuss each of these constructs – support for coproduction and quality of the coproduction output below. Table XX provides the data source, measures, and description of each construct. We also provide more detailed explanations for our measures below.

**Table 1: Description of Measures**

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<th>Measure (Description)</th>
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<td><em>Provider Support for Coproduction</em></td>
<td><em>Views on User Empowerment</em>: 13-item index that assesses clinician support for patient activation and empowerment</td>
<td>Pre- and Post-Event Surveys administered to healthcare professionals</td>
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<tr>
<td></td>
<td><em>Views on User Engagement</em>: 4-item index that assesses provider support for engaging patients as coproducers in the diagnostic process</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Willingness to Use Outputs</em>: 2 items that assess provider’s inclinations to use and encourage other providers to use the recommendations</td>
<td></td>
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</table>
### Consumer Views of Output Quality

: 4 items that assess consumer views of the recommendations in terms of understandability, likelihood of use, ease of use, and potential impact on diagnostic quality

**Provider Views of Output Quality**

: 4 items that assess provider views of the recommendations in terms of their understandability, likelihood of use, ease of use, and potential impact on diagnostic quality from a patient perspective

**Comparative Assessment of Three Recommendation Sets (based on specific criterion)**

: 4 items that assess provider views of the recommendations as a whole set in terms of user-friendliness, appropriateness, likelihood to reduce diagnostic error, and likelihood to improve diagnostic quality

**Comparative Assessment of Three Recommendation Sets (overall assessment)**

: A choice of the “best” set

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**Provider Support for Coproduction**

To measure the degree to which professionals support coproduction (to test H1 and H2), we use three measures from the pre- and post-surveys of providers. First, we use the Clinician Support for Patient Activation Measure (CS-PAM),\(^{24}\) licensed by Insignia Health, to capture providers’ views on user empowerment. This measure assesses “clinicians’ beliefs in the importance of patient activation in self-management behaviors and competencies” (Hibbard et al 2010), and thus is a good proxy of support for coproduction. Specifically, the 13-item measure (see Appendix 3) places individuals on a 0-100 scale, where higher scores indicate greater support for patient activation and empowerment. The scores can be further

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\(^{24}\) Patient Activation Measure (PAM) assesses patients’ knowledge, skills and confidence for managing their own health. This measure is also licensed by Insignia Health.
segmented into three levels – low, medium, and high – which conceptualizes clinicians’ beliefs about patient activation as a hierarchically structured development process.

Second, we created an additive index that captures providers’ views on patient engagement. Specifically, the index measures the degree to which providers believe patients should be engaged as coproducers in the diagnostic process. The additive index (α=0.84) consists of four 5-point Likert scale items, where 1 = strongly disagree to 5 = strongly agree:

1. Patients can play a critical role in the diagnostic process.
2. Patients can play a critical role in improving diagnostic quality.
3. Patients can provide valuable inputs in addressing the problem of diagnostic error.
4. Patients can take actions that reduce diagnostic error.

Finally, we separately use two 5-point Likert scale items (where 1 = strongly disagree and 5 = strongly agree) to measure whether and to what extent professionals are willing to use, and encourage others to use, the coproduced outputs (i.e., the recommendations):

1. I am willing to use the recommendations produced by patients in my own medical practice.
2. I am willing to encourage fellow healthcare professionals to use the recommendations produced by patients.

**Quality of Coproduction Outputs**

To measure perceptions about the quality of the coproduced output (to test H3 and H4), we use data from the recommendation assessment surveys administered to the two groups of healthcare providers and the consumer participatory feedback group. The recommendations (see Appendix 1) are grouped into five broad categories, and we asked respondents to evaluate the quality of each category along a number of dimensions, including
whether they were understandable, likely to be used, easy to use, and likely to improve
diagnostic quality.

Specifically, to assess consumer views of output quality, the healthcare consumers
were asked the following four questions about each of the recommendation categories:

1. Do you understand this recommendation? (Yes or No)

2. How likely is it that you would use this recommendation in your own healthcare?
   (5-point scale: Extremely Unlikely, Unlikely, Neutral, Likely, Extremely Likely)

3. How difficult would it be for you to use this recommendation in your own
   healthcare? (5-point scale: Very Difficult, Difficult, Neutral, Easy, Very Easy)

4. If patients followed through on this recommendation, how much would it
   improve diagnostic quality? (5-point scale: No Improvement, Minor
   Improvement, Neutral, Moderate Improvement, Major Improvement)

Similarly, to assess provider views of output quality, the healthcare professionals were
asked the following four questions about each of the recommendation categories:

1. Will patients understand this recommendation? (Yes or No)

2. How likely is it that patients will use this recommendation? (5-point scale:
   Extremely Unlikely, Unlikely, Neutral, Likely, Extremely Likely)

3. How difficult would it be for patients to use this recommendation? (5-point scale:
   Very Difficult, Difficult, Neutral, Easy, Very Easy)

4. If used, how much would this recommendation improve diagnostic quality? (5-
   point scale: No Improvement, Minor Improvement, Neutral, Moderate
   Improvement, Major Improvement)
In addition to these questions, we also asked the professionals to engage in a comparative assessment of three recommendation sets. Specifically, we asked the professionals to rate the coproduced recommendations as a whole (rather than in their individual categories), as well as to rate two additional sets of recommendations. The providers were not informed about the source of any recommendation set. They were asked to answer the following questions for each recommendation set:

1. How user-friendly is the recommendation set as a whole? (1 = Least User-Friendly to 10 = Most User-Friendly)
2. How appropriate for guiding behaviors and activities is the recommendation set as a whole? (1 = Most Inappropriate to 10 = Most Appropriate)
3. If utilized, how likely is it that the recommendation set as a whole would reduce diagnostic errors? (1 = Least Likely to 10 = Most Likely)
4. If utilized, how likely is it that the recommendation set as a whole would improve diagnostic quality? (1 = Least Likely to 10 = Most Likely)

At the conclusion of the survey, the providers were also asked: “Taken together, which set of recommendations do you think is the best?”

**Methods**

We use both descriptive analyses and t-tests to test our hypotheses. First, to examine professionals’ beliefs about the potential of coproduction (for H1 and H2), we conduct t-tests to see the differences between professionals’ responses on our three measures of Provider Support for Coproduction (Views on user empowerment, Views on user engagement, and Willingness to use coproduced outputs). Second, we report on some descriptive statistics to observe Provider views of output quality (for H3). These include frequency and percent of
people in each of the rating category for each recommendations, as well as the overall sets of the recommendations (coproduced recommendation set by coproduction group, IOM recommendation set, and education group’s recommendation set) for Comparative assessment of three recommendation sets. Lastly, we also employ t-test to investigate the differences between Provider views of output quality and Consumer views of output quality on coproduced recommendations (for H4).

The following section presents the results. It should be noted that the results on two groups of professionals (DEM and Crouse) are reported separately, given the different characteristics of the two groups; DEM group is more favorable of the idea of patient engagement in the diagnostic process than the Crouse group.

Results

Provider Support for Coproduction

Table 2 shows how service providers view the idea of service user empowerment. The mean score for CSPAM (Clinician Support for Patient Activation Measure) were 66.69 and 66.06, respectively for the DEM and Crouse groups. After the healthcare professionals participated in our sessions and saw the coproduced recommendations, the scores increased by 2.08 and 5.92, respectively; however, neither difference is statistically significant. It is worth noting that all of these scores are regarded as high levels of CS-PAM, according to three segments of the measure (low, medium, and high). That being said, professionals already had a higher level of support for patient empowerment, and this did not change after their participation in our sessions.

Table 2: Clinician Support for Patient Activation (CSPAM)

<table>
<thead>
<tr>
<th></th>
<th>DEM</th>
<th>Crouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Before</td>
<td>66.69</td>
<td>66.06</td>
</tr>
</tbody>
</table>
The results on professionals’ views on user (patient) engagement revealed the similar findings (see Table 3). The mean scores for DEM and Crouse groups were 4.66 and 4.22, which saw minimal and statistically insignificant increases of 0.06 and 0.09 after being exposed to the patients’ coproduced recommendations. Again, the participants assessed highly of the potential roles of patients in the diagnostic processes and regarded the idea of patient engagement as important, given that our measure is on five-point scale; and these perceptions merely changed after attending our sessions.

**Table 3: Views on Patient Engagement**

<table>
<thead>
<tr>
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<th>Crouse</th>
</tr>
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<tbody>
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<td>17</td>
</tr>
<tr>
<td>Before</td>
<td>4.66</td>
<td>4.22</td>
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<tr>
<td>After</td>
<td>4.72</td>
<td>4.31</td>
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<tr>
<td>Difference</td>
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<td>0.09</td>
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</table>

Note: *p<.10, **p<.05, ***p<.01; two-tailed test of significance

The results on health service providers’ willingness to use coproduced outputs (recommendations), presented in Table 4, yielded some interesting findings. To begin with, mean perceptions of both groups on this matter were not very high, compared to the scores for their views on user empowerment and user engagement. The scores for the respondents’ willingness to use the coproduced recommendations in their own medical practice are 3.75 and 3.81, and the scores for their willingness to encourage fellow service providers to use the recommendations were 4.00 and 3.76. This indicates that health service providers did not have strong confidence about users’ abilities to produce quality recommendations. However, after they were presented to the recommendation set produced by service users, DEM group’s
perceptions were substantially improved. Their scores moved closer to “strongly agreeing” with the willingness to utilize the coproduced recommendations in their medical practices and to encourage fellow professionals to use the recommendations, and these increases are statistically significant. Yet, the Crouse group did not change their opinions even after being exposed to the coproduced recommendations. The differences between the groups may be a function of participant characteristics (e.g., recall that the DEM group had greater interest in patient empowerment than the Crouse group).

Table 4: Willingness to Use the Coproduced Outputs (Recommendations)

<table>
<thead>
<tr>
<th></th>
<th>DEM</th>
<th>Crouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am willing to use the recommendations produced by patients in my own medical practice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Before</td>
<td>3.75</td>
<td>3.81</td>
</tr>
<tr>
<td>After</td>
<td>4.5</td>
<td>3.84</td>
</tr>
<tr>
<td>Difference</td>
<td>0.75***</td>
<td>0.03</td>
</tr>
</tbody>
</table>

| I am willing to encourage fellow healthcare professionals to use recommendations produced by patients. |      |        |
| N                       | 17   | 17     |
| Before                  | 4.00 | 3.76   |
| After                   | 4.41 | 3.84   |
| Difference              | 0.41* | 0.08 |

Note: *p<.10, **p<.05, ***p<.01; two-tailed test of significance

Taken together, we found mixed support to hypotheses 1 and 2, depending on different measures. Professionals have favorable propositions about the idea of empowering and engaging users, whereas they still have doubts about users’ abilities to produce quality outputs. The following section further investigate how service providers evaluate the quality and efficacy of the actual coproduction outputs.

Professionals’ Views on Quality of Coproduction Outputs

As illustrated in the previous section, professionals in both the DEM and Crouse groups were presented with the recommendations produced by our coproduction group and asked to complete a survey that assessed various facets of their quality. The results of this
assessment activity are presented in Table 5, which shows the responses to each question about the recommendations, including frequencies and percentages. Unlike the previous sections, we do not present the results separately for the DEM and Crouse groups. Instead, we report the cumulative results (N=35).

Table 5: Professionals’ Assessment on the Quality of Coproduction Outputs

<table>
<thead>
<tr>
<th>Will patients understand this recommendation?</th>
<th>Rec 1</th>
<th>Rec 2</th>
<th>Rec 3</th>
<th>Rec 4</th>
<th>Rec 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24 (73%)</td>
<td>25 (74%)</td>
<td>31 (91%)</td>
<td>32 (91%)</td>
<td>32 (94%)</td>
</tr>
<tr>
<td>No</td>
<td>9 (27%)</td>
<td>9 (26%)</td>
<td>3 (9%)</td>
<td>3 (9%)</td>
<td>2 (6%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How likely is it that patients will use this recommendation?</th>
<th>Rec 1</th>
<th>Rec 2</th>
<th>Rec 3</th>
<th>Rec 4</th>
<th>Rec 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely Unlikely</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>4 (11%)</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>Unlikely</td>
<td>7 (20%)</td>
<td>10 (29%)</td>
<td>13 (37%)</td>
<td>15 (43%)</td>
<td>11 (31%)</td>
</tr>
<tr>
<td>Neutral</td>
<td>14 (40%)</td>
<td>14 (40%)</td>
<td>12 (34%)</td>
<td>10 (29%)</td>
<td>15 (43%)</td>
</tr>
<tr>
<td>Likely</td>
<td>14 (40%)</td>
<td>11 (31%)</td>
<td>8 (23%)</td>
<td>6 (17%)</td>
<td>7 (20%)</td>
</tr>
<tr>
<td>Extremely Likely</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>2 (6%)</td>
<td>0 (0%)</td>
<td>1 (3%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How difficult would it be for patients to use this recommendation?</th>
<th>Rec 1</th>
<th>Rec 2</th>
<th>Rec 3</th>
<th>Rec 4</th>
<th>Rec 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Difficult</td>
<td>0 (0%)</td>
<td>2 (6%)</td>
<td>4 (11%)</td>
<td>8 (23%)</td>
<td>2 (6%)</td>
</tr>
<tr>
<td>Difficult</td>
<td>18 (51%)</td>
<td>14 (40%)</td>
<td>21 (60%)</td>
<td>14 (40%)</td>
<td>11 (31%)</td>
</tr>
<tr>
<td>Neutral</td>
<td>9 (26%)</td>
<td>14 (40%)</td>
<td>7 (20%)</td>
<td>10 (29%)</td>
<td>15 (43%)</td>
</tr>
<tr>
<td>Easy</td>
<td>7 (20%)</td>
<td>5 (14%)</td>
<td>2 (6%)</td>
<td>3 (9%)</td>
<td>7 (20%)</td>
</tr>
<tr>
<td>Very Easy</td>
<td>1 (3%)</td>
<td>0 (0%)</td>
<td>1 (3%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If used, how much would this recommendation improve diagnostic quality?</th>
<th>Rec 1</th>
<th>Rec 2</th>
<th>Rec 3</th>
<th>Rec 4</th>
<th>Rec 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Improvement</td>
<td>1 (3%)</td>
<td>0 (0%)</td>
<td>1 (3%)</td>
<td>2 (6%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Minor Improvement</td>
<td>2 (6%)</td>
<td>1 (3%)</td>
<td>1 (3%)</td>
<td>4 (11%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Neutral</td>
<td>1 (3%)</td>
<td>3 (9%)</td>
<td>1 (3%)</td>
<td>3 (9%)</td>
<td>3 (9%)</td>
</tr>
<tr>
<td>Moderate Improvement</td>
<td>22 (63%)</td>
<td>22 (63%)</td>
<td>18 (51%)</td>
<td>18 (51%)</td>
<td>24 (68%)</td>
</tr>
<tr>
<td>Major Improvement</td>
<td>9 (26%)</td>
<td>9 (26%)</td>
<td>14 (40%)</td>
<td>8 (23%)</td>
<td>8 (23%)</td>
</tr>
</tbody>
</table>
In general, professionals’ assessments on coproduction outputs are not very positive, especially in terms of ease of use and patients’ likelihood to use the recommendation; between 17% and 40% of respondents said that users are likely to use the recommendations, and from 9% to 23% of professionals judged the recommendations as being easy for users to follow through. Yet, professionals believed that the five recommendations developed by coproduction group would make impacts in improving diagnostic quality, and that the recommendations are appropriate for patients to follow through; between 74% and 91% of professionals reported that the recommendations would make moderate or major improvement on diagnostic quality. Considering that professionals’ assessments differ according to four different criteria, we found mixed support to hypothesis 3.

<table>
<thead>
<tr>
<th></th>
<th>Coproduction Rec Set</th>
<th>IOM Rec Set</th>
<th>Edu-only Rec Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>User-friendly</td>
<td>5.88</td>
<td>5.26</td>
<td>7.52</td>
</tr>
<tr>
<td>Appropriate for guiding behaviors and activities</td>
<td>6.67</td>
<td>6.64</td>
<td>7.24</td>
</tr>
<tr>
<td>Likely to reduce diagnostic errors</td>
<td>7.58</td>
<td>7.00</td>
<td>6.69</td>
</tr>
<tr>
<td>Likely to improve diagnostic quality</td>
<td>7.85</td>
<td>7.39</td>
<td>6.88</td>
</tr>
</tbody>
</table>

*The Best Set* 10 (31%) 8 (25%) 14 (44%)

We also conducted comparative assessments on the quality of coproduction outputs (recommendations) in comparison to two other sets of recommendations: Edu-only recommendation set (the recommendations developed by the other group consumers who received only a short period of education) and IOM recommendation set (the recommendations developed by a professional health organization). As shown in Table 6, Edu-only set was seen as being the most user-friendly (7.52) and appropriate for guiding
patient behaviors and activities (7.24). The Coproduction group’s recommendations were ranked second on both items (5.88 and 6.67 respectively), and the IOM recommendations ranked third (5.26 and 6.64 respectively). However, the Coproduction group’s recommendation scored the highest in terms of being likely to reduce diagnostic errors (7.58) and improve diagnostic quality (7.85). The IOM recommendations ranked second on these items (7.00 and 7.39 respectively) and the Education group’s recommendations ranked third (6.69 and 6.88 respectively). In terms of their overall quality (i.e., the “best” set), the Education group’s recommendation received the most votes (14 people, 44%), followed by the Coproduction group’s recommendations (10 people, 31%), and the IOM recommendations (8 people, 25%). In short, professionals gave higher ratings to two recommendation sets developed by consumers than to a recommendation set developed by peer professionals. Furthermore, coproduction outputs scored highest in terms of potential impacts on reducing diagnostic errors and improving diagnostic quality. These results might indicate that laypeople have the ability to produce quality outputs through collective coproduction and/or by themselves. Given these mixed results between evaluations on each set of coproduced recommendations (Table 5) and assessments in comparison with other two sets of recommendations (Table 6), we found partial support to hypothesis 3.

Differences between Professionals’ and Users’ Assessments on Coproduction Outputs

Table 7: Service Users’ Assessments of Coproduced Recommendations

<table>
<thead>
<tr>
<th>Do you understand this recommendation?</th>
<th>Rec 1</th>
<th>Rec 2</th>
<th>Rec 3</th>
<th>Rec 4</th>
<th>Rec 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>89 (98%)</td>
<td>91 (100%)</td>
<td>90 (99%)</td>
<td>90 (100%)</td>
<td>90 (100%)</td>
</tr>
<tr>
<td>No</td>
<td>2 (2%)</td>
<td>0 (0%)</td>
<td>1 (1%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How likely is it that you would use this recommendation</th>
<th>Rec 1</th>
<th>Rec 2</th>
<th>Rec 3</th>
<th>Rec 4</th>
<th>Rec 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely Unlikely</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>1 (1%)</td>
<td>3 (3%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Unlikely</td>
<td>2 (2%)</td>
<td>1 (1%)</td>
<td>6 (7%)</td>
<td>5 (6%)</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>Neutral</td>
<td>6 (7%)</td>
<td>4 (4%)</td>
<td>16 (18%)</td>
<td>9 (10%)</td>
<td>6 (7%)</td>
</tr>
</tbody>
</table>
To examine differences between professionals’ and service users’ assessments on coproduced outputs, we first present user participatory feedback group’s responses for the evaluation for each set of recommendation, based on the same set of questions as the ones answered by the professionals. As seen in Table 7, service users’ assessments were more positive. For instance, almost all respondents reported that they understand the recommendations (between 98% and 100%). This differs from professionals’ responses with regard to patients’ understandability of the recommendation. Furthermore, between 75% and 94% of healthcare service users stated that they are likely to use the recommendation for their own healthcare, and between 63% and 79% of them responded that it is easy or very easy to
use the recommendation. These answers were also different from professionals’ perspectives in terms of patients’ ease and likelihood of using the recommendation.

In addition to the descriptive analysis, we conducted t-tests to see whether the differences between professionals’ and citizens’ assessments are statistically significant. We use mean score across five recommendations, with regard to each criterion, in conducting t-tests. The results, presented in Table 8, show significant differences between the two groups’ assessments for all of the four criteria. Professionals gave significantly lower ratings to coproduced recommendations, in terms of understandability, likelihood of patients to use for their own healthcare, and the ease of using the recommendations. Moreover, although professionals thought highly of the potential impact of coproduced recommendations in improving diagnostic quality, there is still a gap between professionals’ and service users’ assessments. Therefore, we found strong support for hypothesis 4.

Table 8: Professionals’ and Users’ Assessments on Coproduction Outputs

<table>
<thead>
<tr>
<th></th>
<th>Professionals (N=35)</th>
<th>Service Users (N=89)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understandability</td>
<td>0.88</td>
<td>1.00</td>
<td>0.12***</td>
</tr>
<tr>
<td>(1=understand, 0=do not understand)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood of use (5-point scale)</td>
<td>2.93</td>
<td>4.26</td>
<td>1.33***</td>
</tr>
<tr>
<td>Ease of use (5-point scale)</td>
<td>2.54</td>
<td>3.93</td>
<td>1.39***</td>
</tr>
<tr>
<td>Impact on improving diagnostic quality</td>
<td>4.05</td>
<td>4.42</td>
<td>0.37***</td>
</tr>
<tr>
<td>(5-point scale)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *p<.10, **p<.05, ***p<.01; two-tailed test of significance

Discussion

Taken together, we found mixed results for our hypotheses, which are worth discussing in detail. First, professionals’ views user empowerment and engagement were generally positive, which does not strongly support our first hypothesis; albeit minimal differences in scores, both groups of professionals had high levels of support to patient activation and
strongly agreed with that patients can play a key role in the diagnostic processes. This indicates that service providers do acknowledge the importance and potential of the idea of coproduction, which resonates with the researchers’ and practitioners’ significant attention to the concept in the recent decades.

Second, despite the importance, service providers still have doubts about the quality of coproduction outputs. Given that the mean scores for the survey questions about their willingness to use the recommendations produced by patients and to encourage fellow professionals to use the recommendation were lower than 4, they did not seem to be fully convinced about patients’ abilities to produce good outputs through coproduction. This finding is further supported by the professionals’ low ratings on the recommendations, specifically in terms of understandability, and patients’ likelihood and ease of using those for their own healthcare. That said, we found support for our third hypothesis, although the recommendation set developed by lay people got better scores when compared with the set created by professional organization. This suggests that more efforts to build collective capacity of lay people and to provide evidence for citizens’ abilities in producing outputs are necessary for enhancing service providers’ beliefs on the potential of utilizing coproduction.

Third, after being exposed to the coproduction outputs in our sessions, professionals’ skepticism changed, at least for one group of professionals (DEM group). This provides a partial support to our second hypothesis. This finding implies that one of the ways to improve professionals’ perceptions on coproduction and the abilities of service users is to show them the evidences of (good) coproduction that lay people developed quality outputs through their collective efforts. In turn, this might mitigate the difference between the service providers’ and users’ perspectives on coproduction, thereby contributing to the efforts to make coproduction work better.
Lastly, the finding on the difference between service users’ and providers’ perceptions on the quality of coproduction outputs further corroborates the need for strengthening professionals’ beliefs on citizens’ abilities in coproduction. Across all of the criteria for recommendation assessments, health professionals and consumer participatory feedback group exhibited significantly different perspectives, which support our fourth hypothesis. Almost all users said that they understand the recommendation, while some of professionals said that patients will not understand the recommendation. Similarly, professionals were skeptical about patients’ likelihood and ease of using the recommendation, but service users were positive about the recommendation with regard to these two criteria. The incongruence between the views of two main actors of coproduction (providers and users) should be addressed, to better utilize coproduction and obtain benefits from such endeavors.

**Conclusion**

This study, which is based on a larger project about patient roles in reducing diagnostic errors and improving diagnostic quality, provide some insights on service providers’ perspectives on coproduction. Our analyses of survey data from the project suggest that healthcare service providers had greater support to coproduction, specifically in terms of empowering service users and engaging them in the service delivery. Nevertheless, they were skeptical about the abilities of lay people when it comes to the production of outputs; professionals’ ratings on coproduced recommendations were significantly lower than those of consumer feedback group. Given that one group of professionals’ willingness to use patients’ coproduced recommendations got increased after our sessions, informing service providers about the capacity of service users in producing outputs is critical to improve service providers’ views on coproduction. Ultimately, this can help obtain benefits from
coproduction, as professionals are more likely to invest efforts to initiate and manage coproduction when they are confident about users’ abilities.

While the issue of diagnostic error may not be central to theories on coproduction and to broader public administration, the study is nonetheless important to the field. This study is one of a few attempts to examine service professionals’ perspectives on coproduction and engaging citizens in service production and delivery. Not only do we present their views on coproduction, but we also provide evidences on how professionals evaluate the quality of coproduction outputs, which were then compared to the citizens’ assessments. In the future, we plan to test the efficacy of the recommendations in a clinical setting. Together, these attributes make the study critical to understanding the potential of coproduction in numerous policy settings beyond healthcare.
References


Löffler, E., Parrado, S., Bovaird, T., & Van Ryzin, G. (2008). If you want to go fast, walk alone. If you want to go far, walk together. *Citizens and the co-production of public*


Appendix 1: Recommendations for Reducing Diagnostic Error and Improving Diagnostic Quality

Recommendation 1 – *Present symptoms clearly and completely*
- Be truthful about your symptoms and other behaviors when telling your doctor about your history to ensure information is accurate.
- Be prepared to discuss your symptoms. For example, 8 characteristics of symptoms are quantity, quality, aggravating factors, alleviating factors, setting, associated symptoms, location, and timing.

Recommendation 2 – *Assert yourself in the relationship*
- Be clear, concise, and persistent in communicating your symptoms and concerns.
- Ask detailed questions of your doctor, including a plan to arrive at a diagnosis so the doctor remains engaged and focused on your concerns. For example, “could these symptoms indicate something else or an additional issue?”
- Notify your healthcare provider if your condition worsens, does or doesn’t improve, or if new symptoms develop.
  - The treatment plan could change based on new information and potentially a new diagnosis.
  - Potential new urgency could affect the healthcare provider’s level of attention.
- If you’re concerned about the accuracy of the diagnosis, seek a second opinion.

Recommendation 3 – *Coordinate your care*
- Find a primary care provider/family doctor so that they can better coordinate and manage your healthcare.
- Enlist a patient advocate, as needed, to assist you in coordinating care.
- Have your primary care provider manage all your records to ensure they are accessible to other providers.
- Seek out a health system where different doctors work together frequently, share consistent information, and coordinate services effectively.

Recommendation 4 – *Ensure accurate records and tests*
- Maintain and update your own medical record, which includes test results, doctor notes, images, communication with providers, and other information pertinent to your medical history.
- If you have access to your electronic medical records or a patient portal, use that. If you don’t have access, ask for a physical copy of your records and/or any recent updates.
- If you notice a factual inaccuracy with your medical record, advocate and insist to have the error corrected.

Recommendation 5 – *Manage your care*
- Ensure communications and expectations are clear between you and your healthcare provider.
- Throughout the relationship, follow through on your healthcare provider’s recommendations regarding the course of action to reach an accurate diagnosis. For example, completing lab tests, going to appointments with specialists, taking medications as prescribed.
- Follow up with your healthcare provider after appointments to obtain test results to ensure proper testing was conducted. Thus, both patient and healthcare provider are accountable.
Appendix 2: Three Sets of Recommendations in Assessment Survey

SET A: Recommendations by Coproduction group

Recommendation 1 – *Present symptoms clearly and completely*
- Be truthful about your symptoms and other behaviors when telling your doctor about your history to ensure information is accurate.
- Be prepared to discuss your symptoms. For example, 8 characteristics of symptoms are quantity, quality, aggravating factors, alleviating factors, setting, associated symptoms, location, and timing.

Recommendation 2 – *Assert yourself in the relationship*
- Be clear, concise, and persistent in communicating your symptoms and concerns.
- Ask detailed questions of your doctor, including a plan to arrive at a diagnosis so the doctor remains engaged and focused on your concerns. For example, “could these symptoms indicate something else or an additional issue?”
- Notify your health care provider if your condition worsens, does or doesn’t improve, or if new symptoms develop.
  - The treatment plan could change based on new information and potentially a new diagnosis.
  - Potential new urgency could affect the health care provider’s level of attention.
- If you’re concerned about the accuracy of the diagnosis, seek a second opinion.

Recommendation 3 – *Coordinate your care*
- Find a primary care provider/family doctor so that they can better coordinate and manage your health care.
- Enlist a patient advocate, as needed, to assist you in coordinating care.
- Have your primary care provider manage all your records to ensure they are accessible to other providers.
- Seek out a health system where different doctors work together frequently, share consistent information, and coordinate services effectively.

Recommendation 4 – *Ensure accurate records and tests*
- Maintain and update your own medical record, which includes test results, doctor notes, images, communication with providers, and other information pertinent to your medical history.
- If you have access to your electronic medical records or a patient portal, use that. If you don’t have access, ask for a physical copy of your records and/or any recent updates.
- If you notice a factual inaccuracy with your medical record, advocate and insist to have the error corrected.

Recommendation 5 – *Manage your care*
- Ensure communications and expectations are clear between you and your health care provider.
- Throughout the relationship, follow through on your health care provider’s recommendations regarding the course of action to reach an accurate diagnosis. For example, completing lab tests, going to appointments with specialists, taking medications as prescribed.
- Follow up with your health care provider after appointments to obtain test results to ensure proper testing was conducted. Thus, both patient and health care provider are accountable.
SET B: Recommendations by Professionals (Institute of Medicine)

Recommendation 1 – *Facilitate more effective teamwork in the diagnostic process among health care professionals, patients, and their families*

- Health care organizations should recognize that the diagnostic process is a dynamic team-based activity.
- Health care organizations should ensure that health care professionals have the appropriate knowledge, skills, resources, and support to engage in teamwork in the diagnostic process.

Recommendation 2 – *To improve the diagnostic process, health care organizations should facilitate and support:*

- Inter-professional and intra-professional teamwork in the diagnostic process.
- Collaboration among pathologists, radiologists, other diagnosticians, and treating health care professionals to improve diagnostic testing processes.

Recommendation 3 – *Health care professionals and organizations should partner with patients and their families as diagnostic team members and facilitate patient and family engagement in the diagnostic process, aligned with their needs, values, and preferences. To accomplish this, they should:*

- Provide patients with opportunities to learn about the diagnostic process.
- Create environments in which patients and their families are comfortable engaging in the diagnostic process and sharing feedback and concerns about diagnostic errors and near misses.
- Ensure patient access to electronic health records (EHRs), including clinical notes and diagnostic testing results, to facilitate patient engagement in the diagnostic process and patient review of health records for accuracy.
- Identify opportunities to include patients and their families in efforts to improve the diagnostic process by learning from diagnostic errors and near misses.

SET C (Recommendations by Education-only Participants)

Recommendation 1 – *Communicate clearly and efficiently*

- Listen carefully to your health care providers and present your symptoms clearly.
- Be honest and give full information to your health care providers.
- Come prepared to the visit. Bring a list of questions, concerns, or issues to share with your health care provider.

Recommendation 2 – *Advocate for yourself actively*

- Be confident about your rights in the relationship with health care providers.
- If you disagree with your diagnosis, seek a second opinion.
- Get support from your advocates (family members or friends) during the visits.

Recommendation 3 – *Be informed about your health, symptoms, diagnosis, and treatment.*

- Know your family history about health-related problems.
- Do your own research on your symptoms and the diagnoses you have received.
- Have information about each medicine you take and its possible side effects.
- Keep records of your own health and behaviors.
### Appendix 3: Clinician Support for Patient Activation Measure (CS-PAM)

Clinicians have different views and expectations about their patients. Please respond to the statements below as they apply to you and your practice. If the statement does not apply, select N/A.

As a Clinician, how important is it to you that your patients with chronic conditions:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not Important</th>
<th>Somewhat Important</th>
<th>Important</th>
<th>Extremely Important</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Are able to take actions that will help prevent or minimize symptoms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>associated with their health condition(s)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Are able to make and maintain lifestyle changes needed to manage their</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>chronic condition?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Can follow through on medical treatments you have told them they need</td>
<td></td>
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<td>to do at home?</td>
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<td>d. Understand which of their behaviors make their chronic condition better</td>
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<td>and which ones make it worse?</td>
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<td>e. Know what each of their prescribed medications is for?</td>
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<td>f. Are able to figure out solutions when new situations or problems</td>
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<td>arise with their health condition(s)?</td>
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<td>g. Are able to determine when they need to go to a medical professional</td>
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<td>for care and when they can handle the problem on their own?</td>
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<td>h. Want to be involved as a full partner with you in making decisions</td>
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<td>about their care?</td>
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<td>i. Tell you the concerns they have about their health even when you do</td>
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<td>not ask?</td>
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<td>j. Want to know what procedures or treatments they will receive and why</td>
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<td>before the treatments or procedure are performed?</td>
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<td>k. Understand the different medical treatment options available for their</td>
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<td>chronic condition(s)?</td>
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<td>l. Look for trustworthy sources of information about their health and</td>
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<td>health choices, such as on the web, news stories, or books?</td>
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<td>m. Bring a list of questions to their office visit?</td>
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Abstract: Coproduction entails the joint production of public services by government officials and citizens. Theory suggests that a major advantage of citizen coproduction is related to the subsequent cost savings for government. However, the lack of longitudinal data has rendered it difficult to test this proposition. We seek to fill this lacuna and analyze the effects of one form of collective coproduction, volunteering in public services, on government spending levels and the number of paid employees per capita across time. Examining a panel dataset on municipal governments in the state of Georgia over 10 years, we find that coproduction significantly reduces the number of paid employees per capita and has a lagged effect on the level of spending. Additionally, the empirical results indicate that an initiation of coproduction programs requires significant investment which drives up the administrative costs and therefore may distract resources from other functions.

Introduction

The efficient and effective delivery of public services constitutes a core purpose of public administration (Neshkova & Guo, 2012). While bureaucratic expertise is an important element for successful policy implementation, citizen input during various phases of the policy cycle is increasingly seen as a way to enhance bureaucratic decision-making and accountability (Jakobsen, James, Moynihan, & Nabatchi, 2016; Nabatchi & Leighninger, 2015). Coproduction denotes a departure from the traditional notion of citizens as passive recipients, and advocates the joint production of public services by public officials and citizens (Sharp, 1980). The ensuing benefits can take the form of improvements in
efficiency through cost savings, higher levels of citizen satisfaction, and contributions to
democratic goals such as greater citizen participation and accountability (Brudney, 1993;

Focusing on the outcomes derived from increased citizen input, one issue that has yet to
be addressed in detail concerns the extent to which these benefits are attained. More
specifically, if governments are faced with decreasing fiscal capability, does citizen
involvement in service delivery lead to cost savings? If public agencies decide to invest in
coproduction programs, do the benefits exceed the costs? A major proposition is that
coproduction programs can either generate cost savings or enhance service levels with a
given amount of resources (Parks et al., 1981; Percy, 1984). However, aside from the
limited number of works that examine costs pertaining to the use of volunteers in public
services (Brudney & Duncombe, 1992; Brunet, DeBoer, & McNamara, 2001; Handy &
Srinivasan, 2004; Hilke, 1986), systematic research exploring the effects of citizen
involvement on cost savings has been limited largely due to a paucity of data.

To address this shortcoming, this paper seeks to explore the effects of coproduction on
cost savings. We draw empirical data from the use of volunteers in publicly funded
services at the city level within the state of Georgia for the period 2006 to 2015. While
coproduction activities can assume many forms, this study focuses on collective
coproduction. This involves citizens in formal and institutionalized capacities such as
volunteering in public organizations where citizens may assume roles similar to the regular
workforce (Brudney & England, 1983). While citizens in this capacity are not always the
direct users or beneficiaries of services, scholars have noted how volunteering constitutes
a form of coproduction in which citizens deliver services on behalf of others (Bovaird &
Loeffler, 2013). From a policy perspective, the joint production by public employees and
volunteers has been considered a strategy for reducing costs during periods of fiscal crises
for local governments (Brudney & Warren, 1990).

To explore the relationship between volunteer involvement and cost savings, we examine
the following two hypotheses. First, we expect that the use of volunteers should generate
cost savings in public services. Second, we expect that volunteer engagement should
reduce the number of paid staff per capita. Due to the longitudinal nature of the data, a
fixed-effects within estimator model is used to explain temporal variance within cities and
to account for time-invariant unobserved heterogeneity. Initially, the results fail to refute
the null hypothesis of no coproduction effect on the level of spending per capita when
controlling for important demographic characteristics, paid employees, local fiscal
capacity, and the number of provided services and facilities. However, the findings reveal
that there is a significant negative lagged effect on the level of spending. Also,
coproduction significantly affects the number of employees per capita. A one percent
increase in the volunteer-to-employee ratio on average leads to a 0.03 percent reduction
in the number of paid employees per capita over this period, demonstrating a substitution
effect. Additionally, we find that volunteer engagement significantly increases the share of
resources devoted to the city administrative function. Thus, whereas potential cost
savings are possible in the first year due to significant reductions in the number of paid
employees, it is likely that they are eaten up by the need to train and manage the
volunteers, which ultimately leads to zero net savings. Once trained, it seems that in the following year volunteers do help to significantly reduce the level of city expenditures.

The main contribution of this paper to coproduction theory building is the empirical testing of a major theoretical expectations about the fiscal consequences of citizen involvement in public service delivery. Moreover, by utilizing a large-N dataset, the longitudinal analysis allows us to address methodological problems of endogeneity. This was difficult to cover in prior cross-sectional studies or those with shorter time periods.

This paper is organized as follows. The next section provides an overview of coproduction and discusses the link between public sector volunteering and coproduction. The paper then discusses a framework for exploring the effects of coproduction and develops the research hypotheses. The subsequent sections present the data and methods, followed by the analysis and results. We conclude with a discussion of the findings.

Literature Review

Coproduction

Within public administration, coproduction denotes the joint production of public services by service agencies and citizens, and this notion has garnered much interest in recent years due to the need to address fiscal pressures, diversifying societal demands, and changing political priorities (Bovaird, 2007; Boyle & Harris, 2009; Brandsen & Honingh, 2015; Pestoff, 2014). Coproduction denotes a departure from the traditional mode of service delivery where government is considered the sole provider of goods and services and in which citizens are viewed as passive recipients (Sharp, 1980). Rather, citizens become a critical component of service delivery as their experiences and knowledge become increasingly necessary for more effective public service design and delivery (Osborne & Strokosch, 2013).

Scholars have offered several different definitions of coproduction. Some hold a narrow view which limits coproduction to the relationship between public employees and citizens as service users (Joshi & Moore, 2004; Pestoff, 2010). Others are more inclusive by considering volunteers and community members as coproducers (Bovaird, 2007; Löffler, 2009). In terms of distinguishing between different types of activities, scholars have offered different typologies or categorizations that differentiate between coproduction activities and arrangements. Bovaird (2007) offers a framework for delineating the relationships between professionals and users and communities based on a set of scenarios that examine whether professionals act alone or together with users and communities to plan and deliver public services. Brandsen and Honingh (2015) categorize activities according to the extent to which citizens participate in either core or complementary activities, and in which they are involved in either the design or implementation stages or both. Brudney and England (1983) identify three types of
coproduction activities based on the relative hierarchy of each type, the nature of the benefits attained, and the degree of overlap between the activities of regular producers and citizens. On an individual level, examples of common activities include installing security alarms or picking up garbage on the streets. Group activities involve configurations such as neighborhood organizations that are somewhat formally organized and may entail some level of coordination by public agencies. Collective activities are even broader in scope and more institutionalized than group activities.

This paper focuses on volunteers as citizens who deliver services on behalf of others (Bovaird & Loeffer, 2013). In addition, we explore collective coproduction activities in which volunteers are involved in a more organized or institutionalized capacity. While citizens do not necessarily have to join an organization, scholars have noted how participating in an organizational capacity has the potential to enhance the levels of coproduction and better facilitate coordination between public organizations and the broader citizenry (Rich, 1981).

**Volunteering and Coproduction**

While volunteers are generally associated with nonprofit organizations, a number of public management studies explore issues pertaining to who volunteers in the public sector and why (Coursey, Yang, & Pandey, 2012; Sundeen, 1990), the utilization of volunteers in local government (Brudney & Kellough, 2000; Gazley & Brudney, 2005), and issues concerning management of volunteers in public agencies (Brudney, 1990c, 2005; Dover, 2010). Based on an analysis of the International City Management Association (ICMA) *Alternative Service Delivery Survey (ASD)*, Nesbit and Brudney (2013) find that 27% of local governments use volunteers to provide some type of services with the greatest use of volunteers in the culture and the arts area. They also find that smaller jurisdictions are more likely to use volunteers in public safety, whereas larger jurisdictions use volunteers in health and human services and cultural and arts programs.

While recent studies have not explored public sector volunteering in detail, early coproduction scholarship treats volunteering as an important form of citizen involvement in public service delivery (Brudney & Warren, 1990; Ferris, 1988; Levine & Fisher, 1984; Sundeen, 1990; Warren, 1987). In recent years, there is some debate as to whether volunteers can be considered coproducers (Pestoff, 2013). Since the ultimate beneficiaries are not the volunteers themselves but the clients who are served through governments services, some treat this as a basis to argue how volunteers are different from clients as service users. However, the problem is deciding which standard to adopt in determining whether an individual is a coproducer or not. For instance, client organizations may involve community residents to volunteer in assisting their operations. An individual may initially be a client because she has a personal interest in a service, but later decide to volunteer in a public or client organization to better coproduce. In short, due to the variety of ways of defining the conceptual boundaries or the myriad scenarios where
citizens are not always direct service users, it seems more useful to view these variations based on a continuum of coproduction activities rather than drawing a strict line between volunteers and coproducers.

Brudney (1990a) defines volunteers in the public sector as citizens involved in services provided by government agencies and departments who participate on an unpaid basis, and commit a regular amount of time and energy to delivering public services. From a traditional management standpoint, studies have applied hierarchically-oriented approaches to managing volunteers (Farr, 1983; Navaratnam, 1986). However, because volunteers are not formally under an agency’s regular personnel system, the management of volunteers requires a different approach relating to issues of integration, motivations, and coordination (Brudney, 1990c). In addition, because of the disparate values and goals that citizen volunteers bring to the delivery of services, this has the potential to generate conflicts between the actions and perspectives of volunteers with the values and priorities of formal service agents (Kettl, 1988). Therefore, the relevance of coproduction theory is that it allows public managers to move beyond simply incorporating citizen volunteers into existing organizational hierarchies and value structures, and to bestow on them a more active role in terms of design and implementation of services (Brudney & Warren, 1990). For instance, Weschler and Mushkatel (1987) distinguish between the terms as coproduction, coprovision, and cofinancing to delineate different ways that citizen volunteers can assume a more prominent role in designing and implementing public services.

Meanwhile, just as citizens and clients can coproduce services in a myriad of ways, Brudney and Warren (1990) discuss several structural dimensions of volunteering ranging from being involved in a unit within the agency hierarchy to participating in an organization that is independent of the public agency and which interacts only on an ad hoc basis. Examples of individual volunteering include engaging in regular clerical work similar to those of paid staff. Organized activities may consist of volunteers being integrated into well-defined structural units that are established for the purpose of being staffed specifically by volunteers. Examples of this are police reserve/auxiliary departments. Meanwhile, organizations such as volunteer fire departments or emergency medical response groups may not be situated within an existing bureaucracy and therefore not hierarchically subordinate to public organizations. Based on mutual or third-party agreements, interactions between voluntary and public agencies can be project specific and of limited duration, or recur irregularly whenever demand occurs. Finally, there may be tiered arrangements in which volunteer or client groups are linked through another citizen group rather than directly with the service agency.

**Coproduction and Cost Savings**

Volunteer involvement is associated with a number of benefits such as lower budgetary costs of service production, expansion of government capacity by augmenting paid staff,
enhancement of service quality, and social benefits such as better incorporation of citizen preferences (Brudney, 1990b, 1993). Focusing on cost savings, the underlying basis is that the addition of citizen inputs either decreases the costs devoted to producing services or increases service levels with a given budget, ultimately resulting in a net decrease in service expenditures (Brudney, 1993; Gazley & Brudney, 2005). Among prior studies exploring the economic consequences of volunteer usage, Hilke (1986) finds that the use of volunteer firefighting units reduces overall expenditures on firefighting activities, and thus lower spending and taxes for local government in general. Brudney and Duncombe (1992) develop a methodology for comparing the costs of using paid, volunteer, and mixed staffing to examine different levels of cost-effectiveness in municipal fire departments and which staffing arrangements work better than others. Brunet et al. (2001) find that professional fire departments are more cost-effective at high levels of fire protection, whereas volunteer fire departments are more cost-effective at low levels of fire protection. Handy and Srinivasan (2004) explore the costs and benefits of volunteering within the context of hospitals and find that the use of volunteers provides a net return of an average of $6.84 in value from volunteers for every dollar spent. While such studies provide valuable insight into examining how volunteers are associated with cost savings, they are limited to single policy realms, and the data are cross-sectional in nature and do not allow us to determine the effects of volunteers on costs savings over time. The question of the extent to which cost reductions occur or employment levels change over time requires further investigation.

Hypothesis

To address this shortcoming, we conduct a longitudinal analysis of the impact of using volunteers on government expenditures using the survey and analyses elaborated in the latter part of the paper. In addition to cost savings, we examine the overall extent to which changes in paid employment occurs throughout local governments.

Within the public management literature, Klingner (1983) discusses three criteria with respect to the use of alternative service delivery arrangements for evaluating municipal productivity, which include the dimensions of efficiency and effectiveness. Cost efficiency focuses on the unit costs of service production in which the lower the cost per unit of service, the more efficient the method of providing that service. Cost effectiveness evaluates programs in terms of the attainment of objectives by examining whether the benefits exceed the costs of using alternative arrangements to achieve the same objective. Finally, program worthiness focuses on the process by which services are delivered and evaluates the value of programs according to “political, social or moral” standards (298).

Brudney (1984) examine the criterion of cost efficiency with respect to evaluating the productivity of coproduction programs. In theory, since volunteers consist of unpaid labor, coproduction programs should have the effect of altering the costs of service inputs and
the quality or quantity of outputs as citizens assume a greater role in the production of services. For this to occur, however, a number of conditions have to be met (Parks et al., 1981). For instance, technology must be available to combine the activities of service agents and citizens in the implementation of services. Also, citizens must possess the capacity to assume a number of duties that are performed by service agents or be able to assist them. If these two conditions are met, then as long as the cost of service inputs are held constant, coproduction programs have the potential to maintain current levels of services with fewer resources or increase the level of service outputs by a set amount. In many cases, public sector volunteering usually involves citizens who are “matched with a set of work activities in service agencies for which they are trained or otherwise judged competent” (Brudney, 1984, p. 475), and who provide a certain degree of technical capacity to engage in service delivery. Thus, we expect that the use of volunteers should allow governments to save on labor costs, leading to a decrease in the level of government spending per capita.

Hypothesis 1: There should be a negative relationship between the use of citizen volunteers and the overall level of spending per capita.

In addition, for governments to save on labor costs, we expect that the use of volunteers should lead to a decrease in the number of paid employees per capita.

Hypothesis 2: There should be a negative relationship between the use of citizen volunteers and the number of paid employees per capita.

However, we must note several limitations pertaining to cost savings and decrease in paid staff. Even though coproduction may generate a net decrease in service expenditures, such programs are not entirely “free” because these activities consume the time and resources of citizens (Kiser & Percy, 1980), and often times such citizen inputs are not readily quantifiable. Also, programs require full-time paid employees to supervise and coordinate volunteers (Brudney & Kellough, 2000). Those that involve citizens in more institutionalized capacities can impose additional costs for recruiting, training and providing liability insurance. While some service costs may be more tangible than others, studies note how volunteer accounting and recordkeeping are notoriously poor (Brudney & Duncombe, 1992), rendering it difficult to assess the full set of administrative costs involve volunteer management.

Meanwhile, the reduction in paid staff could generate political and labor tensions, as some laws prohibit the substitution of paid staff with volunteers. For instance, the Department of Agriculture does not allow the use of volunteers to displace employees (U.S. Code 7, Section 2272). These tensions can lead to weakened support for volunteer programs on the part of officials. However, the extent to which governments and agencies adhere to such policies is uncertain, and these issues may be overlooked in the long run if governments are undergoing a process of reorganization or if governments are faced with rising service demands (Brudney, 1993).

Research Design
Data

The main objectives of this analysis are to assess the effect of coproduction of public services on the level of spending and paid employees, and to expand the extant theory and increase its usefulness in underestimating the consequences of citizen involvement in public services provision. The costs of public services have always been a matter of high salience and although coproduction may be one of the important determinants, this issue has not been addresses in a longitudinal study thus far leaving public administrators with limited knowledge on the consequences of their decisions to coproduce.

We test the effect of coproduction using panel data on municipal governments in the State of Georgia covering 10 years from 2006 through 2015. There are currently 524 cities and towns in Georgia (Georgia State Government, 2017), which possess a charter of municipal incorporation approved by the General Assembly. There is no legal distinction among cities, towns or municipalities in this state.

The main source of data is the Georgia Department of Community Affairs (DCA), which collects information on the number of paid employees and volunteers involved in government operations within the annual Local Government Wage & Salary survey. All financial data also come from the Department. The data on services, facilities and managerial functions performed by each city were extracted from the Government Management Indicators Survey (GOMI) also conducted by the Department. The GOMI survey also reports data on municipal political institutions, such as the number of seats on the board, whether the CEO is appointed by the commission, and how board members are elected, by district, at large, or by some combination of the two. The data on total city population and population in labor force were provided by the Bureau of Labor Statistics. Data on the poverty level were extracted from the Small Area Income & Poverty Estimates (SAIPE) by the U.S. Census Bureau. Net property taxable (NPV) and mean residential property value (MRPV) data were obtained from the Georgia Department of Revenue. Finally, presidential election turnout and results were obtained from the Georgia Secretary of State website.

Since some cities lack complete data for all years of the study, our panel date is unbalanced and “have missing years for at least some cross-sectional units in the sample” (Wooldridge, 2013, p. 491). However, unlike previous studies that relied on cross-sectional analysis, our data allow longitudinal analysis and provide new insights into causal relationships. Considering that Chattahoochee Hills was incorporated in 2007, Dunwoody in December of 2008, Peachtree Corners in 2012 and McRae-Helena in 2015, and depending on whether city officials were surveyed during the year of incorporation, a complete dataset would include about 5,221 observations. Our study excludes McRae-Helena, formed as a result of merging of two cities during the last year of the study, and Peachtree Corners as data for these two cities were available for one year only. Thus, the study includes 522 out of 524 cities in the state. The analysis of missing data revealed that
76 percent of the observations (n=3,955) had complete data for all years. The most common missing data pattern, about 14 percent of observations (n=734), missed information on the number of employees and volunteers, and the rest of the observations were missing some data points on different variables. Each year, 89 percent of responders responded in the next year and had only 11 percent chance becoming non-responders in each year. Meanwhile, non-responders had a 45 percent chance of becoming responders. We regressed an indicator for whether a city responded to the Wage & Salary survey (Yes=1) on the observable city characteristics to estimate potential bias from self-selection. The model classified correctly zero nonresponses suggesting that the sample we use in our analysis is representative of the population in terms of the observed characteristics. Tests of equality of means of population indicated that there is no statistical difference in terms of total population (p-value>10) between the sample used in the analysis and the population. Overall, the sample includes cities with population ranging from 23 to 537,958 residents. The descriptive statistics for all the variables used in the study are presented in Table 1.

Dependent Variables

We estimate the effect of coproduction on several outcomes. The main dependent variables of interest are the level of total city expenditures per capita and the number of paid employees per capita, part-time and full-time combined. Based on the extant theory discussed in the previous sections, we hypothesize that coproduction should have a significant impact on the level of total expenditures and the number of paid employees. We use the natural log of both outcomes in this study. Before taking natural log, dollar amounts have been adjusted for inflation using Consumer Price Index from Bureau of Labor Statistics.

Additionally, we analyze how citizen engagement in government operations might affect distribution of public resources between major spending categories. Theoretically, coproduction programs may lead to increased administrative costs required to recruit, train, and manage volunteers. This may not only prevent potential cost savings, but lead to increased net spending. As an alternative, management may opt to divert resources from some functions to accommodate increasing demands in administrative costs. Yet another alternative is that coproduction might be able to free up some spending from one function to another with total level of spending not affected. Hence, an additional set of eight dependent variables represent the ratio of total spending on each of the central functions as categories by DCA, namely general government, judiciary, public safety, public works, health and welfare, culture and recreation, housing and development, and debt service, to the level of total expenditures. Combined, these categories represent 100% of city expenditures.

Independent Variables
The main predictor of interest in this study is the extent of citizen involvement in coproduction of public services. These data come from the question in Local Government Wage & Salary survey asking the responders to enter the total number of “volunteer or non-paid workers serving as employees”. We operationalize coproduction as a ratio of citizen volunteers to the sum of full-time and part time paid employees. Five of the smaller cities with population from 191 to 432 residents in some years reported to have up to 20 volunteers, while having only one or two paid employees giving in two cases a ratio of 15. Hence, to limit the extreme values and to reduce potential effect of outliers, we use additional measure of coproduction which is winsorized at 1, so that all observation with ratios above 1 are recoded as 1. About 4 percent of the cities reported having more volunteers than paid employees, and about 9 percent had half as many volunteers as paid employees. It is important to note that such high ratios unequivocally indicate that in a number of cases volunteer engagement in our study most likely was associated with major undertakings, where volunteers played a substantial role in government operations rather than assisting with trifling housekeeping routine. Yet another measure is an indicator variable coded 1 for all city-years that involved at least 1 volunteer and zero for those that had zero volunteers. About 93 percent of cities that did not engage in coproduction in the first year, did not have any volunteers next year. Meanwhile about 57 percent of cities with volunteers in the first year continued to coproduce in the next year.

Controls

The study utilizes several clusters of controls capturing essential city characteristics that theoretically might affect the outcomes in our study. Budgetary outcomes are often characterized by incremental annual changes, which makes previous fiscal year behavior one of the strongest predictors of the future. Hence our models include lagged dependent variables. Cities also vary by the number of facilities they maintain, the number of services provided and the managerial functions performed. All of these can affect the level of spending and employees. Hence our models include three count variables indicating the total number of services, facilities and managerial functions undertaken by the city. Table 2 lists all types of functions, services and facilities. We also account for the total number of paid employees per capita in the expenditure models. This variable helps to tease out coproduction effects holding the number of paid employees constant.

Local government institutions are known in urban affairs literature to affect various aspects of local policymaking (Carr & Karuppusamy, 2010; Feiock, Jeong, & Kim, 2003; Frederickson & Johnson, 2001; Karuppusamy & Carr, 2012; Svara, 2005). Hence, a set of indicator variables controls for variation in municipal political institutions. We account for whether or not the chief executive is elected by the commission, whether the board members are elected by the district, at large, or some combination of the two. About 97 percent of the CEO’s are elected by popular vote and in 72 percent of the cities board
members are elected at-large. These two groups serve as omitted comparison categories. We also account for the total number of seats on the board excluding the CEO.

We control for the proportion of local revenue that is received from intergovernmental aid (IGR) and from charges for services. Previous studies find that local officials with a higher proportion of their budgets funded from local taxes rather than IGR tend to be more parsimonious, holding all else equal (Duncombe & Yinger, 1997). We differentiate between different city sizes in terms of population using three dummy variables each indicating whether or not the city falls into the bottom, second, or third quartile, with the top quartile of the population distribution being the omitted comparison category. Population growth is measured as a percent change relative to the previous year, and population density is expressed as the total number of residents per square mile of the city area in a given year.

Additionally, we implement several controls for city wealth and ideological leaning. Wealthier communities with higher fiscal capacity may be more tolerant of inefficient government operations (Eom & Rubenstein, 2006; Grosskopf, Hayes, Taylor, & Weber, 2001; Hayes, Razzolini, & Ross, 1998; Leibenstein, 1966, 1978). These data are not available at the city level across time, so we proxy them by county level data. Thus, we use total net taxable property within the county, mean residential property value (assessed at 40% of the fair market value in Georgia) and percent population in poverty. Theoretically, cities located in wealthier counties as measured by these indicators should also have a wider property tax base and a higher revenue raising capacity. Using data from the U.S. Census available for all cities for one year we estimated correlation coefficients between these variables at the county and city level. The correlation matrices indicated that mean residential property value in the county is significantly correlated with city median housing value (0.65) and median household income (0.63). The county level of poverty is also significantly and positively correlated with city poverty (0.60), and negatively correlated with income (0.62) and housing value (0.59). Hence, we believe these county level variables are reasonably good controls for the purposes of this study.

Another variable controls for the percent of population in the labor force. A higher proportion of population in the labor force may indicate less demand for social services and healthcare, which often comprise a large proportion of local budgets. As for ideological leaning, we use the percent of votes for a democratic presidential candidate in the most recent elections. Thus, the data from 2004 are used for 2006 and 2007, from 2008 elections for 2008-2011, and from 2012 for 2012-2015. There is a substantial variation in ideological preferences, from 18 to 73 percent of voters leaning toward a democratic presidential candidate. We also control for voter turnout at these elections as a proxy for civic engagement.

In addition to these controls, we account for any time trends in the data by including in each model nine year dummy variables with 2006 being the omitted comparison category.

*Estimation Methodology*
Given the continuous nature of our dependent variables, we estimate linear models. The Hausman specification tests pointed to a potential unobserved heterogeneity bias indicating that the data do not support a random effects model. Therefore, we use a fixed-effects within estimator model which seeks to explain temporal variance with cities and accounts for time-invariant unobserved heterogeneity, which may bias the random effects estimators (Halaby, 2004). Additional testing indicated the potential presence of heteroskedasticity and autocorrelation. Hence, all our models are estimated using standard errors clustered by city. The Variance Inflation Factor (VIF) check for multicollinearity indicated that the dummy variable for the bottom population quartile was the variable with the highest VIF (4.26), suggesting that multicollinearity presents no serious concerns (Gujarati, 2007).

Results

The main findings of the study are summarized in Tables 3, 4 and 5. First, we estimate the impact of coproduction on the natural log of the total level of expenditures per capita.

(Insert Table 3 about here)

Controlling for the level of spending in the previous year and important city characteristics, such as the number of functions performed, number of employees, revenue structure, political institutions, population density and growth, fiscal capacity, and ideological leaning, we find no evidence that cities engaging in coproduction obtain significant cost savings (Model 1). The sign is in the expected direction, but the effect is insignificant (p-value=0.34) It appears that cities with a higher ratio of volunteers relative to paid employees maintain the same level of spending per capita. The results are the same with the other two measures of coproduction, namely truncated ratio and dummy indicator.\(^{25}\) None of the year fixed effects was significant in any model. As expected, one of the strongest predictors is last year spending (p-value<0.001) and paid employees per capita (p-value<0.001). Additionally, revenue structure, city size and population growth also appear to be important determinants of municipal fiscal behavior.

Next, we estimate the expenditure models with the coproduction measures lagged by one year. A lagged effect is possible because volunteers are unlikely to take on substantial roles and therefore free up resources in the first year. Once properly trained, however, volunteers involved in the coproduction programs may help to generate cost savings. Because the data are available form 2006 only, we lose one year of observations in these models (Models 2,3,4). Using a one year lag of coproduction measures, we find support for this hypothesis as it appears that volunteers do produce significant cost savings during

\(^{25}\) Because the results are the same, they are not reported for brevity, but are available from the authors upon request.
the following year. According to the untruncated measure of coproduction, a one percentage point increase in the volunteers to employees ratio generates around 0.02 percent decrease in total government spending (Model 2). A model with the truncated measure indicates that savings can be up to 0.08 percent with a one percent increase in the volunteers to employees ratio (Model 3). On average, cities engaging in coproduction manage to reduce their spending by 0.05 percent in the following year compared to their counterparts not engaging in such programs. Thus, we find a significant reduction in total spending in the following year using all three measures. The effect is statistically significant (p-value<0.01 and 0.001) in our fixed effects models even in the presence of a lagged dependent variable, number of paid employees, number of services, facilities, managerial functions and other important factors.

(Insert Table 4 about here)

The next outcome of interest that might be affected by the level of coproduction is the number of paid employees (logged). Here we also estimate the current and lagged effects of each of the three measures of coproduction. The empirical findings from these models suggest that the level of employees is also significantly affected by volunteer involvement, but in a different way. According to Model 5, a one percentage point increase in the volunteers to employees ratio leads to 0.03 percent reduction in the number of employees per capita (p-value<0.001). However, the models with two other measures show no significant impact. Although insignificant, these findings are important. It appears that the level of volunteer engagement is crucial for whether or not cities can significantly reduce their paid personnel. The null findings from the model with the dummy indicator for volunteers show that on average it does not matter whether citizen volunteers are involved in government operations. What does matter, however, as Model 5 indicates, is the extent of volunteer engagement, as measured by the ratio of volunteers to employees.

Additional estimations with lagged coproduction (Model 6) similarly find no evidence of significant reductions in employees per capita in the following year. As for the other factors that influence the level of paid employees, we find that in addition to the size terms of population and its growth, municipalities with greater fiscal capacity, as proxied by net taxable property value, tend to have more employees per capita. Cities with more citizens leaning toward Democratic presidential candidates also employ significantly more public servants. Year fixed effects (not tabulated) indicate that compared to 2006 cities employed significantly more staff in 2007, and significantly fewer employees in 2010 and 2011, while the level of employees did not differ in other years.

It should be noted that some 125 small cities reported in some years zero paid employees, which may or may not have been an error. As a result, the number for employees per capita for these cities is zero, and because we had to take natural log of the ratio to get a

\[26\] We report only one model with lagged (untruncated) coproduction measure as the models with the two other alternative measures provide the same results. All models are available from the authors upon request.
normally distributed dependent variable, these cities were excluded from the analysis. As robustness check, we rerun the models with unlogged employees per capita and therefore all cities in the sample, and although the models perform substantially worse, the findings are the same, i.e. a one percentage point increase in the volunteers to employees ratio is associated with -0.0002 reduction in employees per capita (p-value<0.05) and there is no lagged effect with any of the coproduction measures. Another clarification should be made with respect to the lagged dependent variable in the employment models. We used lagged expenditure per capita instead of lagged employment for two reasons. First, it gives us more observations as lagged employment is not available for some observations in some years and for all observation prior to 2006, whereas lagged expenditures are available beyond the time period of the study. Second, major budgetary choices with respect to revenue, spending and employees are made simultaneously, and a lower level of spending will mean less employees in most cases. Hence, the level of spending per capita in the previous year is a robust proxy for the level of employees. Since previous spending patterns may also determine how much coproduction cities engage in, voluntarily or involuntarily due to shortage of resources, it is an important factor to control for. As a robustness check we reran the employment models with lagged employment per capita, and then with lagged employment and lagged expenditures simultaneously, and the results are the same (β=0.02, p-value<0.05).

Thus far, the empirical results indicate that volunteer involvement most likely reduces the number of paid employees, whereas the level of spending remains the same. In the following year, we see significant cost savings without further reduction in employees. In order to better understand the effects of coproduction on government operations, we estimate its impact on the distribution of public resources between the main city spending categories. We measure the distribution of resources as a ratio of general government, judiciary, public safety, public works, health and welfare, culture and recreation, housing and development, and debt service to the level of total expenditures.

(Insert Table 5 about here)

Using our three measures of coproduction we estimated a total of twenty-four models. The untruncated coproduction variable was close in some, but did not reach the conventional levels of significance in any of the models (p-value>0.10). On the other hand, the model with the truncated coproduction variable indicates a significant positive impact on the proportion of resources devoted to the general government (Model 7) and a negative impact on the amount of resources devoted to culture and recreation (Model 8, p-value=0.059). Similarly, a dummy indicator for volunteer involvement suggests significant increases in the percent of resources spent on general government (Model 9, p-value=0.051) and a reduced ratio of funds devoted to the Judiciary (Model 10). Other spending categories are not affected. Coproduction increases the percent of expenditures allocated to general government from 0.01 to 0.02 percent.

These findings show that although the total level of spending may remain the same, the decision to coproduce affects how the available resources are distributed. One of the consistent findings with at least two coproduction measures is that volunteer involvement
leads to more resources dedicated to the general government. On average, cities engaging in coproduction allocated about 0.01 percent (p-value=0.05) more to the general government spending category, which, according to the DCA, comprises city administration expenses. These findings seem to support the notion of increased administrative costs associated with increased levels of coproduction. In our case, the findings suggest that resources may be diverted from other functions, such as culture and recreation, or perhaps the judiciary functions. Meanwhile, as the previous models indicate, the total level of spending remains unaffected.

A higher proportion of funds allocated for general government may also suggest that the government is going through the process of reorganization, as a result of which we see a reduction in employees and subsequent reductions in spending. This raises an interesting question of whether volunteers are used to cover the gradual reduction of paid employees as a result of some downsizing process. If this is the case, the subsequent reduction in total spending per capita would simply be due to reduced workload rather than cost savings. Although our models control for the number of services, facilities and functions performed by the cities, we estimate additional models to check whether coproduction is associated with a reduction in any of these three. These are count variables, so we ran Poisson regression models with year and city fixed effects, and, as a robustness check, we estimated negative binomial and linear regression models with fixed effects and standard errors clustered by the issuer. Using the same set of controls and one year lag of total spending per capita, we find no evidence that any of the three measures of coproduction, lagged or not lagged, has any effect on the number of facilities, services or managerial functions performed by the city. Hence, the cost savings in the following year that we find in models (Models 3,4,5) are highly likely to be due to efficiency improvements.

**Conclusion**

The extant theory predicts that citizen engagement in coproduction of public services among other things has the potential to generate costs savings. This work represents one of the first attempts to test these predictions in a longitudinal analysis of general purpose local governments engaged in various levels of coproduction. The main conclusion of our study is that coproduction programs do have significant and extended impact on government fiscal behavior. It appears that higher levels of coproduction, as measured by a volunteer to employee ratio, do not immediately generate cost-savings. Indeed, coproduction may significantly increase administrative costs necessary to train and manage the volunteers and divert resources from other spending categories, such as culture and recreation or even judiciary. This does not result, according to our findings, in a net increase in total spending. Meanwhile, volunteer engagement does help the cities reduce the total number of employees per capita. The reductions, however, are more likely with higher ratios of volunteers to employees.
Another important finding is that coproduction has a significant lagged effect on the total level of city expenditures. Our empirical results suggest the savings in the next year can be from 0.02 to 0.08 percent in total spending per capita, while the number of services, facilities and managerial functions remains the same. These findings provide empirical support to one of the main predictions of the coproduction theory postulating that citizen engagement may help improve government efficiency.

While the results of this study are based on cities within a single state, there is reason to believe that the findings are generalizable beyond the state of Georgia. The extent of generalizability depends on whether the cities in other states are similar to those included in this study. The status and powers of local governments are determined by state institutions, which jointly establish state systems of local governments. These systems differ from state to state (Krane, Rigos, & Hill, 2001), which in practice, means that city officials in two different states possess different level of authority and autonomy. However, there are commonalities among states in the way they organize their local units. For instance, Stephens and Wikstrom (2000) distinguish five reasonably discrete systems of local government, where Georgia falls into the same group as Alabama, Florida, Kentucky, Louisiana, Mississippi, Nevada, South Carolina, Utah and West Virginia. In part, the commonalities are explained by historical trends, which reveal adaptation of state systems of local government moving westward as settlement proceeded from the seventeenth century on, from New England and the South to Western states (Stephens & Wikstrom, 2000, pp. 10-11). Cities within one group of states have similar responsibilities and capacities, they interact and cooperate with similar types of other local governments. Thus, we believe our findings should hold at least within this group of states.
References


Osborne, S. P., & Strokosch, K. (2013). It takes two to tango? understanding the Co-production of public services by integrating the services management and public administration perspectives. British Journal of Management, 24(S1), S31-S47.


## Tables

**Table 1. Descriptive Statistics. N=3,955. T=10 (from 2006 to 2015).**

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Note: Year fixed effect omitted for brevity. Significance level: *p < .05, **p < .01, ***p < 0.001.
Table 4. Coproduction effect on the number of Paid Employees Per Capita

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<td>Services provided</td>
<td>0.00</td>
<td>(0.30)</td>
<td>-0.01</td>
<td>(-0.79)</td>
</tr>
<tr>
<td>Facilities provided</td>
<td>0.00</td>
<td>(0.52)</td>
<td>0.00</td>
<td>(0.13)</td>
</tr>
<tr>
<td>IGR</td>
<td>-0.08</td>
<td>(-1.26)</td>
<td>-0.13</td>
<td>(-1.80)</td>
</tr>
<tr>
<td>Charges for services</td>
<td>-0.19*</td>
<td>(-2.12)</td>
<td>-0.20*</td>
<td>(-2.33)</td>
</tr>
<tr>
<td>Number of seats on the board</td>
<td>-0.03</td>
<td>(-0.75)</td>
<td>0.03</td>
<td>(0.56)</td>
</tr>
<tr>
<td>CEO elected by vote of commission</td>
<td>-0.09</td>
<td>(-0.77)</td>
<td>-0.06</td>
<td>(-0.73)</td>
</tr>
<tr>
<td>Board elected by district/at-large</td>
<td>0.11</td>
<td>(1.46)</td>
<td>0.04</td>
<td>(0.61)</td>
</tr>
<tr>
<td>Board elected by district</td>
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<td>(-0.48)</td>
<td>-0.03</td>
<td>(-0.26)</td>
</tr>
<tr>
<td>Board election not applicable</td>
<td>0.15</td>
<td>(1.36)</td>
<td>0.19</td>
<td>(1.70)</td>
</tr>
<tr>
<td>Population, 1st quartile</td>
<td>0.26*</td>
<td>(2.23)</td>
<td>0.22</td>
<td>(1.56)</td>
</tr>
<tr>
<td>Population, 2nd quartile</td>
<td>0.25***</td>
<td>(3.54)</td>
<td>0.28***</td>
<td>(3.55)</td>
</tr>
<tr>
<td>Population, 3rd quartile</td>
<td>0.18***</td>
<td>(3.81)</td>
<td>0.19**</td>
<td>(3.13)</td>
</tr>
<tr>
<td>Population growth</td>
<td>-0.39**</td>
<td>(-2.78)</td>
<td>-0.46**</td>
<td>(-2.66)</td>
</tr>
<tr>
<td>Population Density</td>
<td>0.00</td>
<td>(-1.30)</td>
<td>0.00</td>
<td>(-0.66)</td>
</tr>
<tr>
<td>Percent in Labor Force</td>
<td>-0.12</td>
<td>(-0.39)</td>
<td>-0.07</td>
<td>(-0.23)</td>
</tr>
<tr>
<td>Population in poverty, percent</td>
<td>0.00</td>
<td>(0.02)</td>
<td>0.00</td>
<td>(-0.53)</td>
</tr>
<tr>
<td>NTV</td>
<td>0.00*</td>
<td>(2.56)</td>
<td>0.00</td>
<td>(1.75)</td>
</tr>
<tr>
<td>MRPV</td>
<td>0.00</td>
<td>(-0.46)</td>
<td>0.00</td>
<td>(-1.02)</td>
</tr>
<tr>
<td>Votes for Democrat, percent</td>
<td>0.63*</td>
<td>(2.49)</td>
<td>0.53</td>
<td>(1.78)</td>
</tr>
<tr>
<td>Voter Turnout, percent</td>
<td>0.00</td>
<td>(-1.31)</td>
<td>0.00</td>
<td>(-0.85)</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.71***</td>
<td>(-12.57)</td>
<td>-5.55***</td>
<td>(-10.06)</td>
</tr>
</tbody>
</table>

<p>| N                          | 3,830 | 3,090 |
| R² Within                  | 0.06  | 0.05  |
| R² Between                 | 0.03  | 0.01  |</p>
<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>R² Overall</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>F-Stat</td>
<td>3.70</td>
<td>3.30</td>
</tr>
</tbody>
</table>

Note: Year fixed effect omitted for brevity. Significance level: *p < .05, **p < .01, ***p<0.001.
Table 5. Coproduction effect on the Distribution of Public Resources

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 7</th>
<th>Model 8</th>
<th>Model 9</th>
<th>Model 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coproduction measure</td>
<td>Ratio (truncated)</td>
<td>Ratio (truncated)</td>
<td>Dummy</td>
<td>Dummy</td>
</tr>
<tr>
<td>Coproduction measure</td>
<td>β t-score</td>
<td>β t-score</td>
<td>β t-score</td>
<td>β t-score</td>
</tr>
<tr>
<td>Dependent Variable, share of total spending allocated to</td>
<td>General Government</td>
<td>Culture &amp; Recreation</td>
<td>General Government</td>
<td>Judiciary</td>
</tr>
<tr>
<td>Coproduction</td>
<td>0.02** (2.66)</td>
<td>-0.003 (-1.89)</td>
<td>0.01 (1.95)</td>
<td>-0.002** (-2.77)</td>
</tr>
<tr>
<td>Lagged DV</td>
<td>0.15*** (3.36)</td>
<td>0.21* (2.03)</td>
<td>0.16*** (3.37)</td>
<td>0.27*** (3.81)</td>
</tr>
<tr>
<td>Employment per capita</td>
<td>-0.15 (-0.61)</td>
<td>-0.04 (-0.65)</td>
<td>-0.17 (-0.73)</td>
<td>0.05 (1.42)</td>
</tr>
<tr>
<td>Managerial Functions</td>
<td>0.00 (0.51)</td>
<td>-0.01 (-1.15)</td>
<td>0.00 (0.50)</td>
<td>0.00 (0.46)</td>
</tr>
<tr>
<td>Services provided</td>
<td>0.00 (0.14)</td>
<td>-0.01 (-0.88)</td>
<td>0.00 (0.19)</td>
<td>0.00 (1.35)</td>
</tr>
<tr>
<td>Facilities provided</td>
<td>0.00 (-1.73)</td>
<td>0.00 (0.31)</td>
<td>0.00 (-1.70)</td>
<td>0.00 (-0.44)</td>
</tr>
<tr>
<td>IGR</td>
<td>-0.03 (-1.58)</td>
<td>-0.01 (-1.94)</td>
<td>-0.03 (-1.56)</td>
<td>0.00 (-1.40)</td>
</tr>
<tr>
<td>Charges for services</td>
<td>-0.05* (-2.02)</td>
<td>-0.04* (-2.52)</td>
<td>-0.05* (-1.98)</td>
<td>0.00 (-1.01)</td>
</tr>
<tr>
<td>Number of seats on the board</td>
<td>0.01 (1.65)</td>
<td>0.01 (0.91)</td>
<td>0.01 (1.70)</td>
<td>0.00 (-1.06)</td>
</tr>
<tr>
<td>CEO elected by commission</td>
<td>0.02 (0.98)</td>
<td>0.01 (1.40)</td>
<td>0.02 (1.01)</td>
<td>0.00 (-1.83)</td>
</tr>
<tr>
<td>Board by district/at-large</td>
<td>-0.01 (-0.25)</td>
<td>0.00 (0.80)</td>
<td>-0.01 (-0.27)</td>
<td>0.00 (-0.50)</td>
</tr>
<tr>
<td>Board elected by district</td>
<td>-0.01 (-0.53)</td>
<td>0.00 (-0.64)</td>
<td>-0.01 (-0.55)</td>
<td>0.00 (0.15)</td>
</tr>
<tr>
<td>Board election not applicable</td>
<td>0.01 (0.57)</td>
<td>0.00 (-0.94)</td>
<td>0.02 (0.73)</td>
<td>0.01** (2.64)</td>
</tr>
<tr>
<td>Population, 1st quartile</td>
<td>0.00 (0.06)</td>
<td>0.00 (0.68)</td>
<td>0.00 (-0.01)</td>
<td>0.00 (0.21)</td>
</tr>
<tr>
<td>Population, 2nd quartile</td>
<td>-0.01 (-1.08)</td>
<td>0.00 (1.34)</td>
<td>-0.01 (-1.14)</td>
<td>0.00 (0.37)</td>
</tr>
<tr>
<td>Population, 3rd quartile</td>
<td>0.01 (1.64)</td>
<td>0.00 (1.22)</td>
<td>0.01 (1.54)</td>
<td>0.00 (-0.60)</td>
</tr>
<tr>
<td>Population growth</td>
<td>0.01 (0.67)</td>
<td>0.00 (-0.53)</td>
<td>0.01 (0.69)</td>
<td>0.00 (-1.30)</td>
</tr>
<tr>
<td>Population Density</td>
<td>0.00 (-0.14)</td>
<td>0.00 (1.31)</td>
<td>0.00 (-0.18)</td>
<td>0.00 (-0.45)</td>
</tr>
<tr>
<td>Percent in Labor Force</td>
<td>-0.02 (-0.34)</td>
<td>0.05** (2.64)</td>
<td>-0.02 (-0.32)</td>
<td>0.02 (1.91)</td>
</tr>
<tr>
<td>Population in poverty, percent</td>
<td>0.00 (0.24)</td>
<td>0.00 (-0.55)</td>
<td>0.00 (0.22)</td>
<td>0.00 (-0.68)</td>
</tr>
<tr>
<td>NTV</td>
<td>0.00 (1.86)</td>
<td>0.00 (-0.76)</td>
<td>0.00 (1.86)</td>
<td>0.00 (1.26)</td>
</tr>
<tr>
<td>MRPV</td>
<td>-0.002* (-2.50)</td>
<td>0.00 (0.95)</td>
<td>-0.00* (-2.52)</td>
<td>0.00 (0.32)</td>
</tr>
<tr>
<td>Votes for Democrat, percent</td>
<td>0.14** (2.63)</td>
<td>-0.05** (-2.80)</td>
<td>0.14* (2.56)</td>
<td>-0.01 (-0.55)</td>
</tr>
<tr>
<td>Voter Turnout, percent</td>
<td>0.00 (-0.08)</td>
<td>0.00 (-0.12)</td>
<td>0.00 (-0.09)</td>
<td>0.00 (0.88)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.118 (-1.59)</td>
<td>0.03 (0.72)</td>
<td>0.12 (1.58)</td>
<td>-0.01 (-0.75)</td>
</tr>
<tr>
<td>N</td>
<td>3,955</td>
<td>3,955</td>
<td>3,955</td>
<td>3,955</td>
</tr>
<tr>
<td></td>
<td>0.04</td>
<td>0.07</td>
<td>0.04</td>
<td>0.09</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>$R^2$ Within</td>
<td>0.38</td>
<td>0.15</td>
<td>0.37</td>
<td>0.71</td>
</tr>
<tr>
<td>$R^2$ Between</td>
<td>0.34</td>
<td>0.14</td>
<td>0.33</td>
<td>0.61</td>
</tr>
<tr>
<td>$R^2$ Overall</td>
<td>2.44</td>
<td>1.7</td>
<td>2.37</td>
<td>2.44</td>
</tr>
</tbody>
</table>

Note: Year fixed effect omitted for brevity. Significance level: *p < 0.1; **p < .05, ***p < .01, ****p < 0.001.
Roundtable Discussion

At the conclusion of the event, the participants engaged in a several small roundtable discussions centred on five themes. The goal of their discussions was to identify pressing questions that should be addressed in future work of the Study Group. The group themes and questions are presented below.

Coproduction in Different Contents
1. What kind of comparisons can we learn most from? (What is the context? What variables should be studied, e.g., types of policy sectors, culture issues, geographical contexts...?)
2. What scope of the coproduction model and concepts can we apply in research?
3. Methodology: how can we set up cross-national/cross-sectoral comparative research? What research designs are needed?
4. What are the most extreme contexts for coproduction and how can we learn from them (e.g., mental disabilities, North Korea)?
5. Are there any contexts that we are completely missing in coproduction research now (e.g., military)?
6. What perspective do we take as researchers (e.g., end user, public service organization, public service professional)?

Professionals in Coproduction
1. Who initiates coproduction?
2. How does the status of professional knowledge and experience evolve through coproduction?
3. How does accountability and performance change as a consequence of the focus on outcomes (through coproduction)?
4. How does coproduction affect perceptions of work security and risk from the perspectives of both professional and the public? This also needs to be examined from the perspective of individual level of front-line managers and workers, particularly in terms of the pressures on frontline works and between management and clients.

Designing Coproduction
1. How does information technology structure deep coproduction? Might the process transcend the conventional distinction between the individual and the collective?
2. How are citizens’ roles affected by the increasing automatization of feedback and information through IT?

3. Which policy tools, institutions, and organizational forms support effective coproduction?

4. What factors shape effective coproduction activities? What tools and techniques can be designed to bolster public managers’ capability to implement coproduction?

5. What incentives will broaden the engagement of unconventional groups?

Methods and Measures

1. Does coproduction yield individual, organizational, and societal benefits? Does coproduction yield unequal benefits to leaders versus “ordinary” citizens? What are the implications of coproduction for equity? What are the differential effects of coproduction for equity?

2. What are the benefits of coproduction form a multi-stakeholder perspective? How does one measure coproduction from alternative, multiple perspectives? How can we operationalize public value to be integrated into evaluations of coproduction? Does coproduction yield individual, organizational, and societal benefits? What are the benefits at different levels?

3. What are the various dimensions of coproduction and how can we measure them? Are there tensions among these dimensions, including social capital, personal results, or environmental results? How might we measure these tensions?

4. Can we present examples of coproduction that we might measure and evaluate? Can we reinterpret studies/histories of coproduction for evaluation? Can we apply appreciative inquiry (with a focus on what works) to coproduction? What are the best tools/techniques to analyze coproduction, including ethnographic, so we do not just focus on outputs and impacts? How can we mix and match methods for our coproduction studies to find the right tool? Can we implement experimental research?

5. What are the costs of coproduction, including those for agencies and individuals? What is the relationship between the service economy and coproduction? How can we measure the social, environmental, and economic costs of coproduction?

6. How can we measure citizen perceptions of coproduction? Do citizens and agency conceptions and measurements of coproduction differ? Should we compare the possibly different conceptions and measurements of stakeholders? What are the value conflicts in coproduction among the different stakeholders?

7. What defines the quality of coproduction? How can we measure the quality of collaborative processes in coproduction? How should we evaluate collaboration processes?
Conceptual Issues in Implementation

1. There is difficulty in convincing politicians that citizens know enough and can be trusted to provide more elements of key services – social care, environmental improvement, community safety, etc. How can this barrier be better addressed?

2. There are difficulties in capacity building. How do we empower citizens to participate meaningfully in co-production? (E.g. by field experiments or by simulations?)

3. There are difficulties in producing models/prototypes/templates for co-production – and then in using them, appropriating them, and helping them to evolve. What can we do to ameliorate these challenges?

4. There is a need to map both positive implications and dysfunctions concerning co-production and citizen participation (e.g., through a questionnaire to each side of co-production and by focus group interviews with interest groups).

5. What is the role of ‘red tape’ and ‘green tape’ (rules and procedures)? How can we ‘red tape’, and decide what to keep and what to throw out?

6. How can we best assess the differing attitudes, cultures, and expectations of co-producers?

7. There is difficulty in making actors aware of different ways of dealing with conflicts in co-producing. How can these difficulties be addressed?

8. What are the limitations to value co-creation which arise from the context of co-production?