

# SOCIAL INEQUALITY AND CO-PRODUCTION IN DORDRECHT

by Danique B. Rutjes  
Student number: 548884

*Erasmus*  
ERASMUS UNIVERSITEIT ROTTERDAM



MSC Governance and Management in  
the Public Sector  
Erasmus University, Rotterdam

**SUPERVISOR & FIRST READER: PROF.DR.  
DARREN MCCAULEY**

**SECOND READER:  
DR. ASYA PISAREVSKAYA**

Date: August 7, 2020  
Word Count: 19,997

## ABSTRACT

Social inequality is persistent in contemporary societies. High levels of social inequality lead to dissatisfied citizens. Dissatisfied citizens lead to demonstrations, revolts, or even coups against the current governance systems. Therefore, it is necessary that the current governance system reforms in a way that reduces social inequality. The answer to this problem could lie with co-production. To investigate the plausibility of this solution, this thesis answers the following research question:

What is the influence of citizens' perceptions of their social inequality level on citizens' willingness to co-produce in the municipality of Dordrecht?

To answer this research question, relevant variables are identified. These variables are *Subjective Social Status (SSS)*, *Sense of Community*, *Presence of Co-Production Motivators*, and *Willingness to Co-Produce*. Next, a survey is conducted among residents of the municipality of Dordrecht. After this, statistical analyses are run to assess the relationships between the relevant variables. The results of these analyses show that the higher someone's perception of their standing in the social hierarchy, the higher their willingness to co-produce. Moreover, this relationship is strengthened by a high sense of community. Yet, the presence of co-production motivators does not significantly influence this relationship.

Based on this conclusion, it is recommended that making co-production more inclusive should be treated as a priority on the governance agenda of the municipality of Dordrecht. The municipality should do more research on citizen characteristics like social inequality levels and take this information into account when designing co-production projects. By doing this, it is also important that attention is paid to increasing the sense of community among all residents. The co-production projects should be co-designed with citizens, which makes it easy to tailor the project to the relevant audience. Information on the possibilities of co-production should be available to all residents who have different characteristics to make the co-production process as inclusive as possible. By following these recommendations, co-production has a chance to be an incredibly successful endeavour for the municipality of Dordrecht, while also reducing social inequality.

## **PREFACE**

What follows is the thesis “Social Inequality and Co-Production in the Municipality of Dordrecht.” The research is based on a descriptive and quantitative analysis which has been made possible by a survey. This thesis has been part of my graduation process for the Master Governance and Management in the Public Sector at Erasmus University. I have been researching and writing this thesis from February 2020 to June 2020.

I would like to thank my supervisor, Darren McCauley, for the guidance and support during the process of writing this thesis. He, as well as my peers, were always available and willing to help me with my struggles. I also want to thank all the respondents who took the time to fill in my survey. They have been vital to this research, so I am very grateful for their participation.

Finally, I would like to thank my parents for the great meals and keeping my spirits up during both the easy and hard times of writing this thesis. They kept me motivated to continue to work to the best of my abilities, despite my occasional grumpiness.

Danique Rutjes

Dordrecht, August 10, 2020

## TABLE OF CONTENTS

ABSTRACT .....	ii
PREFACE .....	iii
LIST OF FIGURES .....	vii
LIST OF TABLES .....	vii
<b>1. INTRODUCTION</b> .....	<b>8</b>
1.1. Research Objectives .....	9
1.2. Relevance .....	10
<i>1.2.1. Societal Relevance</i> .....	<i>10</i>
<i>1.2.2. Academic Relevance</i> .....	<i>11</i>
1.3. Outline.....	12
<b>2. THEORETICAL FRAMEWORK</b> .....	<b>12</b>
2.1. Social Inequality.....	12
<i>2.1.1. Social Inequality in Terms of Material Well-Being</i> .....	<i>13</i>
<i>2.1.2. Social Inequality in Terms of Opportunity</i> .....	<i>14</i>
<i>2.1.3. Socioeconomic Status</i> .....	<i>15</i>
2.2. Subjective Understanding of Social Inequality .....	15
<i>2.2.1. Subjective Social Status</i> .....	<i>16</i>
<i>2.2.2. Social Categorisation, Social Comparison and Relative Deprivation</i> .....	<i>16</i>
<i>2.2.3. Social Identity Theory</i> .....	<i>17</i>
2.3. Co-production.....	19
<i>2.3.1. Citizens as Co-Producers</i> .....	<i>20</i>
<i>2.3.2. Circumstances for Citizen Co-Production</i> .....	<i>21</i>
<i>2.3.3. Motivators and Citizen's Willingness to Co-Produce</i> .....	<i>21</i>
<i>2.3.4. Sense of Community and Citizens' Willingness to Co-Produce</i> .....	<i>23</i>
<b>3. METHODOLOGY</b> .....	<b>24</b>
3.1. Conceptual Framework .....	24

3.2. Operationalisation .....	25
3.3. Methods .....	27
3.3.1. <i>Limitations</i> .....	29
3.4. Data Analysis .....	29
4. EMPIRICAL CONTEXT .....	30
4.1. Dordrecht and Social Inequality.....	31
4.2. Dordrecht and Co-Production .....	32
5. FINDINGS .....	34
5.1. Subjective Social Status .....	34
5.2. Sense of Community .....	37
5.3. Presence of Motivators.....	39
5.4. Willingness to Co-Produce.....	44
5.5. Relationships between Variables .....	47
5.5.1. <i>The Relationship Between SSS and Willingness to Co-Produce</i> .....	48
5.5.2. <i>Sense of Community as a Mediating Variable</i> .....	50
5.5.3. <i>Presence of Motivators as a Moderating Variable</i> .....	51
5.5.4. <i>The Relationship Between SSS and Presence of Motivators</i> .....	52
5.6 From Data to Reality .....	54
6. ANALYSIS .....	54
6.1. Implications for This Research.....	55
6.1.1. <i>Hypotheses</i> .....	55
6.1.2. <i>Research Question</i> .....	57
6.2. Theoretical Implications.....	58
6.2.1. <i>Social Inequality Theories Revisited</i> .....	58
6.2.2. <i>Co-Production Theories Revisited</i> .....	59
6.3. Practical Implications .....	61
6.3.1. <i>General Recommendations</i> .....	61
6.3.2. <i>Recommendations on Social Inequality in Dordrecht</i> .....	62

6.3.3. <i>Recommendations on Co-Production in Dordrecht</i> .....	63
7. CONCLUSION .....	65
7.1. Limitations and Future Research.....	66
7.1.1. <i>Limitations of This Thesis</i> .....	66
7.1.2. <i>Limitations of the Existing Literature</i> .....	67
REFERENCES .....	68
APPENDIX 1: SURVEY .....	75
APPENDIX 2: ORDINAL LOGISTIC REGRESSION .....	78
APPENDIX 3: MEDIATING ANALYSIS (ANDREW F. HAYES: PROCESS) .....	80
APPENDIX 4: MODERATION ANALYSIS (ANDREW F. HAYES: PROCESS) .....	81

## **LIST OF FIGURES**

<i>Figure 1. Conceptual Framework.</i> .....	24
<i>Figure 2. Results Subjective Social Status.</i> .....	35
<i>Figure 3. Correlation of Subjective Social Status Indicators.</i> .....	36
<i>Figure 4. Results Sense of Community.</i> .....	38
<i>Figure 5. Results Presence of Motivators: Ranked on Positive Answers.</i> .....	41
<i>Figure 6. Results Willingness to Co-Produce on ‘Assuming that I am capable of co-producing, I would like to collaborate with the government.’</i> .....	44
<i>Figure 7. Results Willingness to Co-Produce on ‘Assuming that I am capable of co-producing, I would like to contribute to the improvement or development of public services.’</i> .....	45
<i>Figure 8. Results Willingness to Co-Produce on ‘Assuming that I am capable of co-producing, I would like to be actively involved in the co-production process.’</i> .....	46
<i>Figure 9. Conceptual Framework including the Cronbach’s Alpha of each variable.</i> .....	48
<i>Figure 10. Standardised regression coefficients for the relationship between SSS and Willingness to Co-Produce as mediated by Sense of Community.</i> .....	50
<i>Figure 11. Explanation Per Cent Mediation.</i> .....	51
<i>Figure 12. Standardised regression coefficients for the relationship between Sense of Community and Willingness to Co-Produce as moderated by Presence of Motivators.</i> .....	52
<i>Figure 13. Conceptual Framework.</i> .....	55
<i>Figure 14. Revised Conceptual Framework.</i> .....	57

## **LIST OF TABLES**

<i>Table 1. Operationalisation.</i> .....	26
<i>Table 2. Pearson Correlations for SSS.</i> .....	37
<i>Table 3. Results Sense of Community in Percentages.</i> .....	38
<i>Table 4. Results of the Effectiveness of Different Motivator Types in Percentages.</i> .....	42
<i>Table 5. Total Results on Willingness to Co-Produce in Percentages.</i> .....	47
<i>Table 6. Spearman Correlations for SSS and Presence of Motivators.</i> .....	54

## 1. INTRODUCTION

Every citizen has a relationship with the government. This can be a close or a distant relationship. No citizen can avoid the government altogether. Every corner of the inhabited world is run by governments, some areas more than others. Generally, the government is the watchdog of the citizens, while citizens are the watchdog of the government. Both parties hold each other accountable for their actions. Yet, the relationship between citizens and the government can take many forms. It is an ever-changing, incredibly dynamic relationship.

Throughout history, there have been many forms of government-citizen interaction. Government-citizen interaction started as a horizontal, hierarchical relationship. This is in line with the paradigm of traditional public administration, or TPA. Governments provided public services and citizens consumed those public services (Sorrentino, Sicilia & Howlett, 2018). There was no way for citizens to get involved in the service delivery process. At the end of this period, in the 1970s, the idea of co-production was coined (Sorrentino, Sicilia & Howlett, 2018). It was suggested that the success of public services depended on the input of its users, which were the citizens. However, the concept was still underdeveloped and barely used. After this relationship based on hierarchy, a vertical relationship developed. This vertical relationship emerged during the paradigm of new public management, or NPM. During this time, citizens were seen as customers whereas the government worked with businesses to provide for public services. Citizens were only involved in the provision of services if it could increase efficiency (Sorrentino, Sicilia & Howlett, 2018). Nonetheless, there was little room for citizen involvement. The idea of co-production took off in the 2000s, at the same time when the paradigm of new public governance, or NPG, emerged. NPG is about the collaboration between citizens and the government to achieve optimal public services. Initially, the use of citizens' input into government practices was quite limited (Bailey, 2011). Yet, citizen involvement in public services keeps increasing which leads to increasingly intensive forms of citizen participation.

Co-production is so different from the more traditional models of governance because it includes citizens in the production of public services (Cinquini et al., 2017). There is a collaboration between citizens and the government to realise public services. However, co-production does not come naturally. Because this form of governance is relatively new, there



are still many questions on the workings and effectiveness of co-production. Moreover, and just as important, there is a question on whether citizens have a desire to be involved in the creation of public services at all. Citizens need to be willing to co-produce for co-production to be an effective way of governing. Yet, there are still many questions and dilemmas about citizens' willingness to co-produce. Are there certain types of citizens that are more willing to participate than other types? And what determines this willingness to co-produce of citizens? Citizens' willingness to co-produce is a complicated matter and influenced by many factors. There are also many consequences of citizens' willingness to co-produce. What if only citizens with available knowledge and resources are willing to co-produce? Would this not create a gap between the fortunate and less fortunate citizens in a country (Cinquini et al., 2017)? These questions demonstrate the importance of understanding the factors that contribute to citizens' willingness to co-produce. One of these factors is social inequality (SI) among citizens. It is important to understand the connection between citizens' SI level and their willingness to co-produce. However, citizens do not objectively know their SI level. Rather, they perceive their SI level subjectively, often in relation to other members in their community.

### **1.1. Research Objectives**

This thesis analyses the relationship between citizens' perceptions of their SI level and their willingness to co-produce. This relationship is explored in the context of the municipality of Dordrecht. Dordrecht is the 24<sup>th</sup> most populated city in the Netherlands and has some experience with co-production within its municipality. Therefore, this thesis aims to answer the following research question:

What is the influence of citizens' perceptions of their social inequality level on citizens' willingness to co-produce in the municipality of Dordrecht?

This thesis answers this question by conducting a literature analysis to understand all different factors that play a role in the relationship between citizens' perceptions of their SI level and citizens' willingness to co-produce. By doing this, the boundaries of the scope of this thesis are set. Moreover, this thesis aggregates new data through a survey. The survey includes all relevant topics related to this research question, as discovered through the literature analysis. The aggregated data is analysed quantitatively, with the help of statistical analyses. This is done

to gain in-depth insight into how citizens' perceptions of their SI level influence their willingness to co-produce.

## **1.2. Relevance**

Before diving into this research topic, it is important to know its relevance. By having relevance, this thesis has a purpose. Relevance is necessary for both a societal context and an academic context. Societal relevance ensures that this thesis results in practical implications that can be used in the future. Academic relevance ensures that this research contributes to the existing literature by either adding new information or confirming or falsifying existing information.

### ***1.2.1. Societal Relevance***

In terms of societal relevance, this research question provides insight into the implications of social inequalities on citizen behaviour. Contemporarily, many national leaders identify their country as being a meritocracy (Littler, 2017). Meritocracy refers to the idea that everyone can reach the top as long as they work hard enough. It does not matter with which social position you were born; success is based on merit. However, this claim does not acknowledge that SI is a trend that is present in all modern nation-states. In fact, it is argued that SI is even increasing in Western societies (Manstead, 2018). Even though the idea of a meritocracy sounds amazing, it is not realistic. Therefore, the presence of SI must not go unaddressed since one's social position substantially determines one's future. Citizens, whether consciously or unconsciously, have a perception of their position in the social hierarchy. This perception determines one's identity which in turn influences behaviour (Manstead, 2018). The behaviour of citizens is in turn determinant of a country's future. When citizens are unsatisfied with their social position, they are more likely to revolt against the government.

However, as of recently, co-production is becoming a more popular approach by governments to increase satisfaction among citizens. Co-production is a term coined in the 1970s, and thus a relatively new concept (Brudney, 1985). Co-production generally refers to the collaboration between citizens and the government to produce public policies and services. In theory, this could be an option for people who are dissatisfied with their social position to influence their future. When these citizens can influence public policies and services, they

might increase life opportunities for people in their social position. Therefore, it is important to gain insight into whether citizens' perception of their SI level influences their willingness to co-produce.

### ***1.2.2. Academic Relevance***

In terms of academic relevance, this research question mainly contributes to the existing literature on co-production by providing data on the relationship between citizens' perceptions of their SI level and their willingness to co-produce. As mentioned, co-production is a relatively new concept in academic literature. A lot of literature on co-production focuses merely on the extent to which coproduction is desirable and effective in several contexts (Loeffler & Bovaird, 2016; Sharp, 1980; Realpe & Wallace, 2010; Auh et al., 2007). There is limited literature that analyses the incentives of citizens to co-produce. The literature that is available on this matter generally assumes that citizens engage in co-production because they can get material or nonmaterial rewards (Alford, 2002; Alford, 2014; Verschuere, Brandsen & Pestoff, 2012; Voorberg, Jilke, Tummers & Bekkers, 2018). However, in both cases, the citizen acts to gain something; he or she acts out of self-interest. This focus on incentives does not take citizen characteristics into account. There merely is a focus on what could motivate citizens to co-produce. Voorberg, Bekkers and Tummers (2015) acknowledge that there are citizen characteristics that influence citizens' willingness to co-produce. These characteristics vary from skills and values to the level of education (Voorberg, Bekkers, & Tummers, 2015). Although this starts to relate to SI, it does not explicitly mention, let alone research, the relationship between citizens' perception of SI and their willingness to coproduce. So, because of the limited literature on this relationship, in particular, this thesis aims to elaborate on this relationship.

Moreover, this research question partly contributes to the existing literature on SI. Much literature on SI focuses on how the concept can be understood through different theories and conceptualisations (Perez-Arce et al., 2016; Machin & Stehr, 2016; Bartley, 2017; Chan & Goldthorpe, 2007). However, little attention is paid to the subjective understanding of SI by citizens. The literature that does exist on this, discusses multiple theories which are presented rather fragmented (Schneider, 2019; Howard, Renfrow & Daniel, 2014; Hogg, 2006; Stets & Burke, 2000). This thesis aims to bring these different theories on subjective SI together.

### **1.3. Outline**

This thesis is structured with seven chapters. This introductory chapter is Chapter 1. Chapter 2 explores the existing theories on the concepts of SI, citizens' perception of SI, and co-production. The purpose of this chapter is to gain insight into what is already available knowledge in the existing literature on this topic. Chapter 3 takes these insights and creates a methodology which guides the research conducted in this thesis. The methodology consists of a conceptual framework, an operationalisation, as well as a section on the methods that are used. Chapter 4 elaborates on the context of this thesis, namely the municipality of Dordrecht. Attention is paid to the history of both SI and co-production in Dordrecht, to understand the background of this research. Chapter 5 reports on the findings that have resulted from the conducted survey. This section includes a descriptive as well as a statistical reporting of the obtained data. Chapter 6 incorporates the findings with the theoretical chapters of this thesis to either confirm or falsify the theoretical assumptions made in Chapter 3. This chapter also gives several theoretical as well as practical implications of this research. Finally, Chapter 7 is the conclusion in which the main results are reiterate. This chapter also discusses the limitations of this thesis, followed by suggestions for future research.

## **2. THEORETICAL FRAMEWORK**

Before aggregating data, it is crucial to set up a framework that guides this thesis. To establish a research framework, the existing literature on relevant topics is analysed. The relevant topics of this research are SI and its subjective understanding by citizens, as well as co-production.

### **2.1. Social Inequality**

A crucial concept in this thesis is SI, in specific one's perception on their level of SI. However, before diving into this subjective understanding, it is necessary to analyse the concept of SI itself. SI is a highly complex concept due to the many understandings which are all interconnected (Machin & Stehr, 2016). For example, SI can be understood as inequality in terms of income, wealth, health, gender, ethnicity, education, etc. Throughout history, these different understandings have been emphasised by different people at different times. The different understandings can broadly be categorised into two main understandings to SI. These

two understandings are viewing SI in terms of material well-being and viewing SI in terms of opportunity (Keister & Southgate, 2012). The main difference between these different understandings is the extent to which they take cultural components into account (Machin & Stehr, 2016). To comprehend both of these understandings, it is useful to briefly look at the origins of both ideas.

### ***2.1.1. Social Inequality in Terms of Material Well-Being***

Looking at SI in terms of material well-being, SI refers to inequality in economic terms. This understanding has been highly influenced by the work of Karl Marx who focused on the idea of historical materialism (Keister & Southgate, 2012). Marx explains SI to be a result of the differences between occupations (Bartley, 2017). In his view, an individual is either an owner or an employee which make up the social classes (Bartley, 2017). An owner refers to someone who owns assets which allows them to not work for a wage. An employee, on the other hand, does not own any assets and needs to work for a wage to get by. Within the group of both owners and employees, there are multiple layers which determines an individuals' social class (Bartley, 2017). Although this is a quite simplified version of Marx' ideas, the key takeaway is that SI manifests itself into social classes which are determined by the distinction between occupations. However, Marx' theory regarding SI does not fit with contemporary society since it does not take into account the cultural complexities of today's world (Machin & Stehr, 2016). Still, Marx' theory is contemporarily often looked back upon when studying SI (Keister & Southgate, 2012). This is reflected in the contemporary measuring of income and wealth inequality (Perez-Arce et al., 2016). Income and wealth inequality refer to the differences in income and wealth between the different social classes.

Building on Marx' work, Max Weber aims at incorporating cultural elements into the understanding of SI. Weber does this by making a distinction between social class and social status (Chan & Goldthorpe, 2007). This is part of the three-component theory of stratification, which argues that there are three main dimensions to SI: wealth, prestige and power (Keister & Southgate, 2012). The first dimension is wealth, which refers to the idea of social class as described by Marx. Weber's notion of social class is largely compliant with Marx' understanding of social class. The second dimension of SI concerns prestige which relates to social status (Keister & Southgate, 2012). An individual's social status is determined by people's perception of their superiority or inferiority (Chan & Goldthorpe, 2007). This

perception is determined by associations of an individual's characteristics or their occupation (Chan & Goldthorpe, 2007; Keister & Southgate, 2012). Although social status is related to one's income, this relation is quite minimal (Chan & Goldthorpe 2007). Similarly, Bartley (2017) not related to one's occupation, but only to an individual's characteristic which is "derived from their family, religious, tribal or ethnic background" (Social Status section, para. 2). The third dimension of SI concerns power which refers to the influence a person has to get others to do what that person wants (Keister & Southgate, 2012). In this theory, power then mostly refers to political power (Keister & Southgate, 2012). The important takeaway from this discussion is the idea that social class and social status are significantly different ways to look at SI, but it is important to acknowledge that these two understandings are still very much related to each other (Keister & Southgate, 2012). Usually, someone in a higher social class also has a higher social status and vice versa.

### ***2.1.2. Social Inequality in Terms of Opportunity***

SI can also be understood in terms of opportunity. Looking at SI in terms of opportunity, SI refers to the accessibility to life chances. This understanding of SI is influenced by the work of Pierre Bourdieu who coined the idea of cultural capital, which differs from economic and social capital which Marx and Weber focused on (Machin & Stehr, 2016). The cultural capital theory is about the way some individuals are inherently disadvantaged to climb up the social ladder since there are differences in accessibility to "distributional channels" (Machin & Stehr, 2016, p. 7). This means that people in a higher class and with higher status are more likely to have access to certain resources, for example, education (Keister & Southgate, 2012). Cultural capital then refers to the extent to which an individual's knowledge can be used to increase their social status. Thus, Bourdieu sees status and knowledge or skill as closely related (Lareau & Weininger, 2004). However, more recently, most scholars interpret cultural capital a bit differently. These scholars perceive cultural capital as an individual's understanding of the dominant, elite culture which allows them to adapt to this culture through "distinctive cultural traits, tastes, and styles" (Lareau & Weininger, 2004, p. 112). In this view, knowledge or skill is merely an addition to one's status. Related to this second perception of cultural capital is the conformity-deviance theory of SI (Milner, 1987). This theory explains SI to be a result of the extent to which one's actions are following the existing social norms. Dominant social norms are set by the dominant culture, which motivates people to conform to this dominant culture. If they do not conform, they will be sanctioned which will influence one's power and resources

(Milner, 1987). This determines one's level of privilege in society and thus contributes to levels of SI.

### ***2.1.3. Socioeconomic Status***

Now that the different theoretical understandings of SI are described, it is important to see how theory can be used in practice. Socioeconomic status (SES) is a way to measure one's SI level. Someone's SES is difficult to determine accurately since a lot of factors contribute to their SES (Farah, 2017). However, three indicators are generally accepted to indicate one's SES. These indicators are income, occupation and education (Baker, 2014). Although these indicators are correlated to each other, they each provide a different insight into someone's SES. Income concerns the money someone earns through wages or salaries, which can be measured both at the individual or household level. In SES, occupation mostly refers to the prestige that comes along with one's occupation. Whilst occupation determines one's income, it also determines someone's social network. Occupation can be measured by looking at someone's longest job or someone's most recent job. Education relates to the knowledge someone has which allows them to move up the social ladder. Education can be measured through either the number of years of education or the highest obtained degree.

## **2.2. Subjective Understanding of Social Inequality**

When focusing on the literature of one's perception of their level of SI, it becomes clear that the concept of SI has many dimensions that have not been discussed yet. The previously discussed theories are about SI as a concept. However, for this thesis, it is important to look at theories on the subjective understanding of SI. Society consists of a hierarchy in which each citizen has its place. This place is not fixed. Rather, the social hierarchy is dynamic; citizens can move up and down the hierarchy. Nonetheless, people are born into a society that already has positive and negative connotations of certain social categories (Stets & Burke, 2000). This demonstrates that the social hierarchy is socially constructed. Moreover, citizens have an understanding of their position in the social hierarchy (Schneider, 2019). This relates to the idea of class consciousness as originally presented by Marx. Class consciousness refers to the extent to which someone is aware of their social class within the hierarchy (Carvacho & Álvarez,

2019). Class consciousness is closely related to SI since people need to be conscious of their social position to recognise and acknowledge SI.

### ***2.2.1. Subjective Social Status***

A way to measure one's perception of their SI level is through subjective social status (SSS). SSS refers to someone's perception of their social status within the social hierarchy (Schneider, 2019). SSS in the existing literature is mostly related to health. One's SSS influences a person's stress levels which can decrease their mental and physical health (Cundiff et al., 2013). However, SSS is not exclusively applicable to health. SSS is generally measured through the MacArthur Scale in which people can indicate their perceived social standing compared to the national population and their community (Cundiff et al., 2013). People do this by placing themselves on a ten-step ladder. Comparison within a community is argued to be a better indicator of one's SSS since people perceive themselves in contrast with "the circle of their close acquaintance" (Evans & Kelley, 2004). The three indicators of SES form the foundation of SSS (Demakakos et al., 2008). Although people can also use other indicators next to income, occupational prestige and educational attainment, these SES indicators form the starting point. When looking back at the theories on SI, SSS is quite a comprehensive way of measuring the subjective understanding of SI. Whereas income and occupational prestige is part of the material well-being understanding of SI, educational attainment is part of the cultural capital theory, and thus part of the opportunity understanding of SI.

### ***2.2.2. Social Categorisation, Social Comparison and Relative Deprivation***

Several theories relate to someone's SSS. All theories are closely related and frequently overlap. Therefore, it is more useful to see the theories as one big picture. Social categorisation theory argues that people categorise themselves and others into certain social categories (Howard & Renfrow, 2014). People categorise themselves and others to make sense of society because it gives them indications on who they are and how they should behave in different social contexts (Hogg, 2006). They do this by attributing certain characteristics to themselves and others and categorising people with the same characteristics into the same category. This kind of evaluation does not need to be factual; it is how people perceive and how they are perceived. The categories can be linked to physical characteristics such as age or sex, to a



person's skill or competence such as academic performance, to personality or emotions such as generous or introverted, or to more traditional characteristics that cannot be seen from the outside as clearly such as nationality, occupation or religion (Callero, 2014). Characteristics and evaluations only exist relative to other characteristics and evaluations (Berger, Rosenholtz & Zelditch, 1980). When self-categorising, you place yourself in a category in relation to other categories (Stets & Burke, 2000). Some characteristics are generally perceived to be better than other characteristics, which gives people a sense of their position within the social hierarchy. Some categories are then perceived to have more power which influences the distribution of resources, which leads to SI (Foy et al., 2014). Moreover, people can misuse social categories to their advantage. They can categorise and evaluate others in a sense that enhances their social position (Roccas & Brewer, 2002). This idea is in line with social comparison theory.

Social comparison theory argues that people evaluate themselves by comparing their characteristics and abilities to those of others (Schneider, 2019). To do this, they need to categorise themselves first. People are quite selective in comparing themselves. People tend to evaluate themselves mostly when it enhances their perception of themselves (Stets & Burke, 2000). Social comparisons can be on an individual level in which someone compares their personal characteristics to those of others, as well as on a group level in which someone compares the characteristics of his social category to those of other social categories (Osborne, García-Sánchez & Sibley, 2019). It is important to note that most social comparisons occur unconsciously (Buunk et al., 2019). However, a question remains on what people do with these social categorisations and social comparisons. The answer lies in the relative deprivation theory.

Relative deprivation theory relates the idea of individuals ranking themselves in the social hierarchy to life satisfaction (Schneider, 2019). People look at what other people have and if they do not have the same, they might feel deprived relative to the other people. This lowers their SSS. So, when people feel relatively deprived, their subjective social status decreases, which in turn decreases their life satisfaction (Schneider, 2019).

### ***2.2.3. Social Identity Theory***

Social identity theory is a combination of social categorisation theory, social comparison theory and relative deprivation theory, but with a higher focus on identity and group relations. To be

aware of your social position, people need to have an idea of their identity. To understand the concept of identity, it is important to address intersectionality. Intersectionality explains that there are many dimensions to one's identity and all these dimensions interact (Collins & Bilge, 2016). For example, someone's gender, ethnicity and nationality are all part of their identity and these dimensions interact which creates a unique identity for each individual. This intersectionality of identity reveals how people experience oppression and privilege, which relates to someone's perception of their social position (Howard & Renfrow, 2014).

Social identity theory argues that one's self-concept is related to group membership in different social categories (Hogg, 2006; Spears, 2011). In other words, people feel that they belong to a certain social category and they compare their social category to other social categories to identify themselves as being part of their social category. The social group an individual feels connected with is called the in-group, whereas other social groups are called out-groups (Hogg, 2006).

Social identity theory makes a distinction between personal identity and social identity. Social identity refers to an individual's knowledge on which social groups they belong to and how that individual views these social groups (Stets & Burke, 2000; Luhtanen & Crocker, 1992). A social group is then a group of people who share the same social identity; they feel they belong to the same social categorisation. Personal identity, on the other hand, is not about belonging to a group. Rather, it is about specific characteristics of an individual and how that individual views themselves (Hogg, 2006; Stets & Burke, 2000; Luhtanen & Crocker, 1992). As discussed with the concept of intersectionality, people can have many social and personal identities (Hogg, 2006; Roccas & Brewer, 2002). It is important to note that identities are socially constructed to make sense of society (Callero, 2014). Different identities are active in different contexts, which is referred to as the salience of an identity (Stets & Burke, 2000). For example, in some situations, one's identity as female is more important, whereas in other situations one's identity as Dutch is more important.

The purpose of identity becoming salient is to make the individual feel connected to the in-group (Stets & Burke, 2000). Every social group has a certain prototype which reflects the expected behaviour of members of the in-group (Hogg, 2001). People evaluate themselves to determine whether they fit with the prototype. This fit with the prototype depends on the extent to which someone conforms with the norms of the in-group. On the one hand, this can lead to

cohesiveness since members of the in-group are motivated to behave according to the norms (Hogg, 2001). On the other hand, if some members do not conform to the norms, they are perceived by other members to be deviant (Hogg, 2001). This can create a hierarchy within the in-group (Abrams & Hogg, 2001). Citizens can deviate from this prototype negatively or positively. In both cases, people who match the prototype will devalue deviants. Yet, within an in-group, people desire to be valued since it is vital to their self-esteem.

Self-esteem is not a characteristic of an individual, but rather it is about how individuals are perceived by other members of their in-group (Leary, Jongman-Sereno & Diebels, 2014). Self-esteem increases when an individual is perceived to bring value to the in-group. However, there is a problem in the fact that sometimes, people are not evaluated on the value they bring to the group. People can be evaluated on certain characteristics such as age, race or gender, instead of their value to the in-group (Anderson & Cowan, 2014). People always aim to increase their self-esteem (Anderson & Cowan, 2014; Abrams & Hogg, 2001). To increase their self-esteem, an individual will adjust to the prototype as much as possible. If they get the feeling of other members that they match the prototype, their self-evaluation is positive and their self-esteem increases. However, if they feel like other members believe they do not bring any value to the in-group, their self-evaluation is negative and their self-esteem decreases. When this negative self-esteem becomes part of one's identity, SI is internalised (Callero, 2014). It is important to note that a person can have high self-esteem in one social category, but low self-esteem in another social category (Leary, Jognman-Sereno & Diebels, 2014).

To enhance their self-esteem, people also tend to idealise their in-group and criticise or ridicule the out-group, which makes them feel proud to belong to the in-group (Hogg, 2006). This way of evaluating social groups, however, creates a hierarchy between the social categories. Society has a collective idea on which social groups hold more power and are more worthy than others (Ridgeway, 2001). With this in mind, it becomes clear that social inequalities are easy to be maintained (Foy et al., 2014).

### **2.3. Co-production**

After having discussed the multiple theories concerning SI, it is time to move on to a discussion on co-production. There are many definitions of co-production, all of which are quite similar. The term co-production was coined by Elinor Ostrom in the 1970s under the definition: "Co-

production is the process through which inputs used to provide a good or service are contributed by individuals who are not in the same organization” (Bovaird, 2007; Brandsen & Honingh, 2016). Although this definition may be a bit outdated, there are key takeaways that are present in every definition after Ostrom’s. First, co-production concerns the cooperation between public agents and citizens (Bovaird, 2007; Boyle & Harris, 2009; Voorberg et al., 2018). Second, the goal of this cooperation is the production of public services (Voorberg, Bekkers & Tummers, 2015; Bovaird, 2007; Voorberg et al., 2018). Third, both public agents and citizens need to be actively engaged during the production process (Voorberg, Bekkers & Tummers, 2015; Bovaird, 2007; Boyle & Harris, 2009; Pestoff, Osborne & Brandsen, 2006). By following these three conditions, responsibility for public services is shared among public agents and citizens (Boyle & Harris, 2009). Moreover, co-production can improve existing public services since public agents are making use of citizens’ knowledge, resources and ideas, which makes citizens more motivated to comply with the associated regulations of public services (Loeffler & Bovaird, 2016).

### ***2.3.1. Citizens as Co-Producers***

Even though most definitions exclusively refer to the involvement of citizens, there are multiple types of actors that can engage in co-production. Alford (2002) distinguishes between clients, volunteers and citizens. Each type of actor has different motivators on why they engage in co-production. Clients’ willingness to co-produce depends on the private value they receive, whereas volunteers co-produce to express their values and beliefs (Alford, 2002). Clients and volunteers can also be considered citizens; they remain a citizen despite their co-production practices. However, citizens have a different reason to co-produce. Citizens co-produce mainly to create public value. While creating public value, it is possible that citizens also receive private value (Nabatchi, Sancino & Sacilia, 2017; Hattke & Kalucza, 2019). Nonetheless, Bowles and Gintis (2002) argue that citizens are still willing to participate when knowing that there might not be any private gain from participating. Moreover, one can only speak of citizens in a co-production setting if the citizens within a co-production project act collectively (Nabatchi, Sancino & Sacilia, 2017). If citizens act individually, then one speaks of a client or volunteer.

### ***2.3.2. Circumstances for Citizen Co-Production***

There are several circumstances in which citizens would engage in co-production. The reasons to co-produce are partly related to how satisfied they are with current affairs (Loeffler & Bovaird, 2016). If someone is not satisfied with how the government is currently regulating their public services, they are more inclined to want to intervene in public affairs by getting themselves involved in the production process of public services. On top of these key reasons, the likeliness of citizens involvement in co-production depends on two additional aspects: capability and willingness. To remain within the scope of this research, capability will merely be introduced, whereas willingness will be discussed more extensively. Capability is an important factor that motivates citizens to co-produce (Loeffler & Bovaird, 2016). This refers to whether citizens are capable to co-produce. This depends among others on the task difficulty; citizens are more likely to co-produce when tasks are easy (Alford, 2002). Capability also depends on the characteristics of citizens themselves (Voorberg, Bekkers & Tummers, 2015). For example, citizens with a lack of skill or education will not perform a high-skilled task that requires high education (Jakobsen & Andersen, 2013). So, SI in terms of opportunity is quite influential for citizens' capability to co-produce. With fewer opportunities in life, citizens will not attain many skills which hinder them from engaging in co-production. But, perhaps even more important than capability, citizens need to be willing to co-produce. This willingness depends on two main incentives: motivators and a sense of community.

### ***2.3.3. Motivators and Citizen's Willingness to Co-Produced***

Motivators can be either extrinsic or intrinsic. Extrinsic motivators refer to individuals behaving a certain way to be rewarded or to avoid punishment. In the case of co-production, there are two types of extrinsic motivators. First, citizens can decide to engage in co-production to avoid sanctions (Alford, 2002; Loeffler & Bovaird, 2016). However, this method of motivating citizens is not effective since it can demotivate them from putting effort into the project (Alford, 2002). If citizens face a constant threat of punishment, it is likely they will not voluntarily put more time and effort into co-producing public services. Second, citizens can be motivated to co-produce through material rewards (Alford, 2002; Verschuere, Brandsen & Pestoff, 2012; Voorberg et al., 2018; Loeffler & Bovaird, 2016). These material rewards can range from financial benefits to access to additional services. This motivator is generally argued to be very

effective since it is often assumed that individuals act out of self-interest. Citizens will more likely co-produce when there is something concrete to gain from it. However, this explanation is quite flawed since it does not acknowledge other forms of motivation (Verschuere, Brandsen & Pestoff, 2012). Moreover, financial incentives have proven to have limitations. Voorberg et al. (2018) have demonstrated that financial incentives are only effective when the price is high enough to compensate for the effort that the task requires. Therefore, it is only an effective motivator for easy tasks, since those require the least effort. Extrinsic motivators largely appeal to SI in terms of material well-being. Citizens who experience SI in terms of material well-being are likely more interested in material rewards for their engagement co-production.

Intrinsic motivators, on the other hand, refer to individuals behaving a certain way because it is personally rewarding. When looking at co-production, there are four types of intrinsic motivators. First, citizens can be motivated to co-produce because it enhances their self-esteem (Loeffler & Bovaird, 2016). When an individual is actively engaged in a co-production project, they are likely to feel more needed. They find that they have a purpose in society which enhances their social self-esteem. Second, normative values can motivate citizens to co-produce (Alford, 2014; Verschuere, Brandsen & Pestoff, 2012). In the literature, normative values are also referred to as moral motivation or expressive incentives (Alford, 2002). Normative values refer to values that citizens uphold because they believe it is right to uphold them. In the case co-production, citizens might participate because they believe it will enhance values such as “participation, influence and democracy” (Verschuere, Brandsen & Pestoff, 2012). Moreover, citizens might feel it is their civic duty to perform co-productive tasks (Voorberg et al., 2018). Normative values also include the rewarding feeling citizens might get from co-production because they feel like they are partly responsible for the creation of public value (Alford, 2002). Third, solidary incentives can motivate citizens to co-produce (Alford, 2002; Verschuere, Brandsen & Pestoff, 2012). These solidary incentives refer to the personal rewards citizens get from associating with other citizens. Co-producing together with other citizens makes citizens feel like they belong in society; it gives them a social identity (Alford, 2002). This improves their sense of social cohesion. However, the negative side of this motivator concerns the idea that citizens can be motivated to co-produce because they feel group pressure to belong in this social group. Finally, citizens can be motivated to co-produce through personal motivators. This category is not as clear as the previous ones, since it concerns the remaining intrinsic motivations that do not belong to the previous categories. The literature does not explicitly refer to these motivations as a separate category, but it tends to categorise it

simply as intrinsic motivators. Examples of personal motivators are the desire to move away from the daily grind of life (Loeffler & Bovaird, 2016) or the excitement to do well in society (Alford, 2002). Intrinsic motivators appeal more to SI in terms of opportunity. Especially self-esteem and solidary incentives are aimed to improve citizens' sense of belonging in society, and thus their social status. This is what citizens who experience SI in terms of opportunity look for, which makes them more interested in intrinsic motivators.

It is important to understand that extrinsic and intrinsic motivators for co-production are not mutually exclusive. Rather, they are complementary (Voorberg et al., 2018). Moreover, the type of motivator that is most successful depends on the type of co-production (Alford, 2002). Usually, the motivation of citizens to co-produce does not lie with one motivator, but with a complex mixture of motivators (Alford, 2014). However, the presence of the right motivators influences the type and frequency of co-production among citizens (Pestoff, 2006).

#### ***2.3.4. Sense of Community and Citizens' Willingness to Co-Produce***

Another incentive for citizens' willingness to co-produce concerns the sense of community among citizens. Sense of community regards the identification of a citizen with the broader social structure (Goncalves et al., 2014). People are generally more willing to participate in society if they feel like they belong to a network (Lowndes, Pratchett & Stoker, 2006). In the case of co-production, a network mostly refers to a community. As with an in-group, people can develop a shared identity within a community which allows them to connect. In a community, people build trust among each other which allows them to cooperate. As mentioned, citizens in co-production need to act collectively. Therefore, this sense of community is very important. This relates to the idea of self-esteem from the social identity theory. People desire a sense of community to ultimately raise their self-esteem. Someone's self-esteem affects their subjective social status. Low self-esteem leads to internalised SI, which eventually leads to a lower sense of community. A low sense of community would then lead to a lower willingness to participate in society. However, it is not a guarantee that a high sense of community leads to greater citizen participation. Even with a sense of community, citizens can decide not to participate (Lowndes, Pratchett & Stoker, 2006). Citizens always have a level of agency which allows them to make active decisions on whether to co-produce or not.

### 3. METHODOLOGY

#### 3.1. Conceptual Framework

Following the theoretical framework, the following conceptual framework is created for this research, as seen in Figure 1.

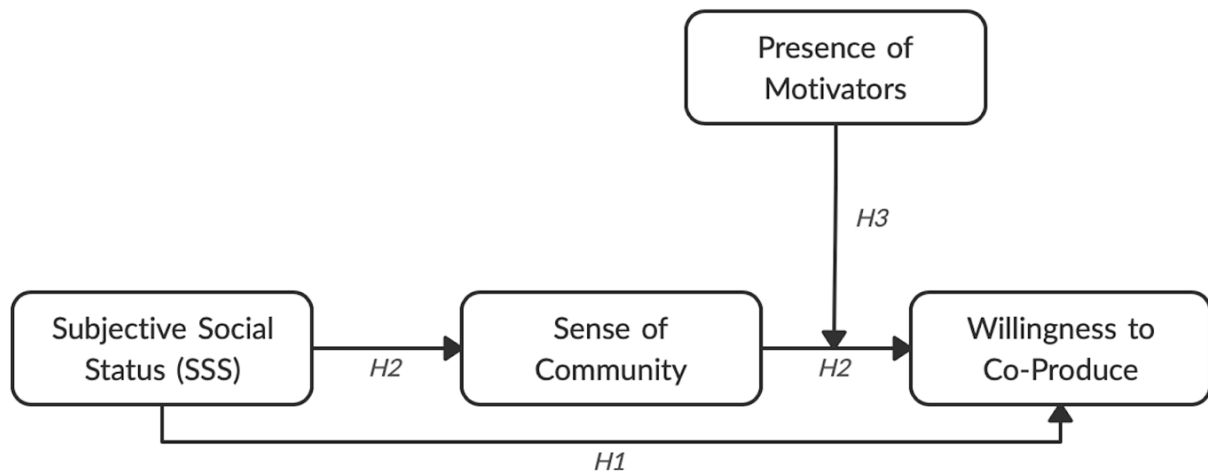


Figure 1. Conceptual Framework.

This research argues that there is a relationship between an individual's perception of their SI level and their willingness to co-produce. In this research, this perception of an individual's SI level is measured through their SSS. This leads to the first hypothesis:

*H1: An individual's SSS determines their willingness to co-produce.*

However, this is not a direct relationship. This becomes clear when reasoning why someone's perception of their SI level could affect their willingness to co-produce. An individual's perception of their social position within the social hierarchy is measured through their SSS. By determining their SSS, an individual considers to which social categories they belong to and comparing their social standing to those of others. This implies that they already have a sense of their social identity. Part of one's social identity is the perception they have of their social groups. This is not only limited to their own social group's standing to other social groups, but it is also about in-group relations. An individual has a position within their social group as well. This position concerns the extent to which an individual matches the prototype or the extent to which they are considered deviant. This affects an individual's self-esteem. This



position within the in-group as well as an individual's self-esteem determines one's sense of community. A high sense of community leads to high levels of trust among community members. This allows them to cooperate which makes them want to participate in society. This increase in citizens' willingness to participate translates to a higher willingness to co-produce. So, the link between someone's SSS and their willingness to co-produce is their sense of community. This leads to the following hypothesis:

*H2: An individual's sense of community acts as a mediator on the relationship between SSS and Willingness to Co-Produce.*

The relationship between *Sense of Community* and *Willingness to Co-Produce* is strengthened more when the right co-production motivators are present. Different people require different motivators to be motivated to co-produce. In general, people respond to mixtures of motivators. Nonetheless, when the right mixture of motivators is present, people tend to co-produce more frequently.

*H3: The presence of the co-production motivators functions as a moderator on the relationship between Sense of Community and Willingness to Co-Produce.*

### **3.2. Operationalisation**

Now that the most important variables in this research have been established, it is important that these variables are operationalised. The overview of the operationalisation can be found in Table 1.

The variable *SSS* is measured by income levels, occupational prestige and educational attainment. Income is measured through someone's wage, occupational prestige is measured over their longest job, and educational attainment is measured over their highest obtained degree. Following the MacArthur Scale of Subjective Social Status, an individual has to rank each of these indicators on a scale which indicates their perception of their place in the social hierarchy. By doing so, this variable includes the processes of self-categorisation and self-evaluation. This variable also addresses inter-group relations in terms of their perceived in-group and relevant out-groups.

<b>Variable</b>	<b>Definition</b>	<b>Indicator</b>	<b>Measure</b>
<b>Subjective Social Status</b>	An individual's perceived level of social inequality within the existing social hierarchy.	<ol style="list-style-type: none"> <li>1. My income level (wage) has a place in the social hierarchy.</li> <li>2. My occupation (longest job) has a place in the social hierarchy.</li> <li>3. My education (highest obtained degree) has a place in the social hierarchy.</li> </ol>	MacArthur Scale
<b>Sense of Community</b>	The extent to which an individual feels connected to their specified community.	<ol style="list-style-type: none"> <li>1. I feel I am accepted by members of the community.</li> <li>2. I feel I bring value to the community.</li> <li>3. I identify myself with members of the community.</li> <li>4. I trust members of the community.</li> </ol>	Likert Scale
<b>Presence of Motivators</b>	The presence of personal motivators that influence an individual's engagement in co-production.	<ol style="list-style-type: none"> <li>1. I want to co-produce if there are material rewards.</li> <li>2. I want to co-produce if there is a risk of sanctioning.</li> <li>3. I want to co-produce if it enhances my self-esteem.</li> <li>4. I want to co-produce if I believe it is the right thing to do.</li> <li>5. I want to co-produce if it gives me a sense of social cohesion.</li> </ol>	Likert Scale
<b>Willingness to Co-Produce</b>	The extent to which an individual is inclined to actively cooperate with public service agents to jointly produce a public service.	<ol style="list-style-type: none"> <li>1. Assuming that I am able to co-produce, I want to cooperate with public service agents.</li> <li>2. Assuming that I am able to co-produce, I want to contribute to the creation of public services.</li> <li>3. Assuming that I am able to co-produce, I want to be actively engaged in the co-production process.</li> </ol>	Likert Scale

*Table 1. Operationalisation.*

The variable *Sense of Community* is measured by the extent to which an individual is perceived deviant, the extent to which an individual receives self-esteem, the extent to which they have a shared identity with their community, and the extent to which they trust members of their community. This is measured through a 5-point Likert scale. This variable addresses intra-group relations in terms of their specified in-group, which is their community.

The variable *Presence of Motivators* is measured through the established extrinsic and intrinsic motivators. Extrinsic motivators are material rewards and sanctioning. Intrinsic motivators are self-esteem, normative or solidary. Personal motivators are left out due to the vague nature of these motivators. The influence of the presence of these motivators on an individual's willingness to co-produce is measured through a 5-point Likert scale.

The variable *Willingness to Co-Produce* is measured through the three key elements of the definition of co-production. These are the cooperation between citizens and public agents, the creation of public services, and the active engagement of both parties. These indicators are measured through a 5-point Likert scale. As mentioned, the ability to co-produce does not fall within the scope of this research. To measure willingness, it is important to assume that an individual is capable to co-produce.

### **3.3. Methods**

This research is performed quantitatively. Qualitative research might give more insight into the motivations behind citizens' perceptions of their standing in the social hierarchy as well as into the incentives of citizens' willingness to co-produce. However, quantitative research is more appropriate for generalising the relationship between the two variables (Bryman, 2012). Data is collected through a survey. A benefit of using a survey is that it allows for a widespread reach. Because someone's income level, occupational prestige and educational attainment can be sensitive information that people are reluctant to share, the survey is done anonymously. The survey can be found in Appendix 1.

This research is conducted through a single city case study. This choice is made due to the limited resources and time of this research. With the results being meant to apply to other Dutch cities, this single city case study functions as a representative case (Swanborn, 2018). There are benefits to single case studies in general. A single case study ensures a high quality

of the resulting theory, whereas a multiple case study ensures a higher quantity of theory (Gustafsson, 2017). Yet, this thesis aims to get a deep understanding of the relevant topics, which makes a single city case study more fitting. On top of this, there is limited academic literature on the relation between subjective SI and co-production. This thesis could, therefore, function as a pilot on a multiple case study on the same topic (Rowley, 2002).

The people relevant to this research are citizens of Dordrecht. These citizens are required to have an occupation, income and previous education. All three components need some further specification. Occupation refers to someone's main profession that serves as a means to earn money. This main profession can be full-time, part-time or freelance. People can have multiple jobs, such as a primary job and a side job. However, occupation exclusively refers to the primary job one has to earn a living. Income is highly related to occupation since one's occupation determines someone's income. Therefore, by looking for people with an occupation, they automatically have an income. Although unemployed residents usually earn a living through subsidies, these residents are not included in this research. However, being subsidised is not considered an occupation. Because of the absence of an official occupation, they cannot rate their occupational prestige. Even though it is common that unemployed residents may have volunteering jobs, they do not earn a living by doing this. Therefore, by the criteria set to determine the scope of this research, unemployed residents are excluded from this research. In terms of education, the Netherlands has laws on compulsory education (Rijksoverheid, n.d.a). Educational attendance is compulsory until someone turns sixteen. However, if by age sixteen they have not obtained any basic qualification, they are obliged to attend an education until their eighteenth birthday or until they do obtain a basic qualification. So, the minimum age by which one can have valid educational attainment is sixteen. Therefore, the minimum age required for this research is sixteen. So, when conducting the survey, this research needs citizens of Dordrecht who are older than sixteen and have an occupation.

This boils down to around 80,000 people who fit this description (Alle Cijfers, 2020). This functions as the population size for this research. It is important to reach enough people to be able to generalise the findings of this research. This is determined by the sample size of this research. The sample size of this research needs to be sufficiently representative to generalise the findings. Two important requirements for a representative sample are the confidence level and margin of error of the research. The industry's standard on confidence level is 95%, which means that there is a 95% probability that the results of this research accurately represents the

position of the chosen population. Moreover, it is important to aim for a low margin of error. A desirable margin of error is 5%. So, the sample size this research is aiming for will be between 317, which is the minimum for a 5% margin of error, and 473, which is the maximum for a 5% margin of error.

### ***3.3.1. Limitations***

In quantitative research, some problems are frequently encountered. First, it is difficult to make an accurate generalisation. Without a representative sample, there is a low external validity (Bryman, 2012). Moreover, a single city case study typically has a lower external validity than a multiple city case study. It is difficult to generalise when there is low external validity. One way to contest a low external validity is by conducting a probability sample. Unfortunately, there is no time nor resources to do a probability sample. Nevertheless, by aiming for a high sample size, it becomes easier to generalise. Second, when choosing for a survey, there is a risk that there are too few respondents. This can either be because you do not reach enough people or because the survey is too long or not clear enough (Bryman, 2012). Each question is carefully designed and proofread by several people to minimise this risk. Finally, this research uses an online survey. By doing an online survey, it is important to take into account that not everyone will have access to the platforms this research uses. However, by having a minimum age of 16, as well as the requirement that people need to have a current occupation, groups of people that are likely to be inactive online are excluded.

Next to the limitations of quantitative research, there are also some limitations to the use of a single city case study. Compared to a multiple case study, it is difficult to determine which factors are case-specific and which findings can be generalized (Swanborn, 2018). This limitation is tried to overcome by having a high sample size. Moreover, single case studies are often less confident when it comes to representativeness (Gustafsson, 2017). A higher sample size suggests higher representativeness of the city.

### ***3.4. Data Analysis***

Due to limited literature on this topic, the majority of the survey is not built on previous studies or a pre-set template. Rather, the operationalisation is used to create the survey. The

operationalisation identifies the most important indicators of each relevant variable. The survey consists of statements that correlate to a specific indicator. Because most motivators are multidimensional, there are multiple statements for most of the motivator indicators. Yet, the MacArthur Scale of SSS is used as a template for the survey statements on citizens' SSS. After determining the survey statements, the survey is created through the website Survio, after which it is distributed. The survey is done online due to limited time and resources. For a small part, respondents are retrieved from the researcher's network. However, the majority of the respondents are derived from multiple Facebook groups which are exclusive to Dordrecht residents. By mostly focusing on these groups, the survey can reach residents of Dordrecht without the researcher's bias.

Following the distribution process, the survey is met with 360 respondents. For the actual analysis, SPSS is used. An ordinal logistic regression is performed between SSS and *Willingness to Co-Produce*. A mediator analysis is run to determine the role of *Sense of Community*. A moderator analysis is run to determine the role of *Presence of Motivators*. By doing this, all aspects of the conceptual framework are covered, and an informed conclusion can be drawn.

## **4. EMPIRICAL CONTEXT**

As seen in the introduction and methods, this research focuses on SI and co-production on a local government level. This choice was made since SI tends to be only discussed in a national context. This implies that solutions for inequalities are also often sought on a national level. However, this is quite problematic. There is a trend towards decentralisation in the Netherlands (Rijksoverheid, n.d.b). More and more tasks are transferred from the national government to the municipalities. This means a greater responsibility for the municipalities. Municipalities are increasingly more in charge of tackling social problems that occur in their area of legislation. Therefore, more attention must be paid to potential solutions to social problems on a local level. To do this, there first needs to be more research on the social problems that exist on a local level. In research and literature on SI, the main focus generally lies on the national level (UCLG, 2012). This also means that the vast majority of available data on SI is on a national level. Yet, the importance of the municipalities is underestimated when it comes to making a difference in society. Public services are realised on a local level, despite them often being delegated from a

national level. Municipalities are responsible for realising “access to education, living conditions, exposure to risk, quality of life, and participation” (UCLG, 2012, p. 3). Citizens are likely to notice a difference when solutions to SI are offered on a local level, rather than on a national level.

At the same time, co-production is often addressed on a very local level. It is often dealt with in terms of co-production initiatives within a neighbourhood. This research wants to look at co-production on a slightly bigger level. Although researching co-production on a neighbourhood level is also useful, the purpose of this research is to make generalisations on co-production and its link to SI. Since co-production mainly exists on a local level, the choice is made to analyse co-production on a municipality level. This level is broad enough to make generalisations, as well as small enough for co-production to be realised.

The municipality this research focuses on is Dordrecht, a city in the Netherlands. The Netherlands has 355 municipalities. With around 120.000 inhabitants, Dordrecht is the 24<sup>th</sup> biggest municipality in the Netherlands (Alle Cijfers, 2020). As mentioned, much research on SI takes place on a national level. The research that is available on a local level tends to focus on typical big cities. This is also the case with co-production literature. Dordrecht is not a typical big city. Dordrecht is not a typical small city either. It is a middle ground. There are 19 neighbourhoods in Dordrecht, but they are all connected. In bigger cities, it is common that the different neighbourhoods have no contact at all. This is not the case in Dordrecht. By being a medium-sized city, the results are more likely to apply to both bigger and smaller cities.

#### **4.1. Dordrecht and Social Inequality**

It is interesting to see where Dordrecht is placed in terms of SI compared to other municipalities in the Netherlands. RIVM has done a study on municipalities and SES (2015). The SES is measured by looking at education levels, occupation and income. This study has researched the municipalities’ and national SES development from 1998 to 2010. In all years, Dordrecht performed lower than the national average (RIVM, 2015). This indicates that the average SES of all Dordrecht residents is lower than the average of other municipalities’ residents. Another research that has measured the SES of municipalities show that there are also many differences within the municipality of Dordrecht (Volksgezondheidszorg, 2017). However, there is

limited data on these differences in SI within Dordrecht. There are, nonetheless, some indicators that give an idea of SI in Dordrecht.

For example, 8.7% of Dordrecht's households are below or around the social minimum when it comes to income (StatLine, 2019). When looking at the different neighbourhoods in Dordrecht, this percentage ranges from 3.2% to 17.7%. This difference shows that there is significant income inequality in Dordrecht. Another study shows similar results. This study shows the average income per resident of each neighbourhood in Dordrecht (Alle Cijfers, 2020). The highest average income of a neighbourhood is 32.400 euros, while the lowest average income of another neighbourhood is 20.100 euros. This is quite a substantial difference in income. The available data on education in Dordrecht suggests a lower level of SI than the studies on income. 28% of Dordrecht residents have a low level of education (StatLine, 2019). 40% of the residents have a medium level of education, whereas 29% have a high level of education. These are not major differences, which suggest a lower SI level. However, this data alone is limited, and it is not possible to make a reliable argument on SI levels within the municipality of Dordrecht. It is merely an indication.

## **4.2. Dordrecht and Co-Production**

Dordrecht has built a reputation for being excited about citizen participation (Dordrecht.net, 2017). However, there is still much unclarity regarding how to involve citizens. The municipality has shaped the involvement of citizens through some legislation pieces.

In 2008, the college of the Mayor and councillors of Dordrecht have written a letter to the local council on the future of citizen participation in the city (College of Mayor and Councillors of Dordrecht, 2008). This letter acknowledges the frequency of citizen consultation about policy processes. Moreover, the letter gives multiple examples of co-production projects in Dordrecht. In terms of the future of participation, a suggested next step is to improve the procedures of consultation and co-production. More openness, carefulness and transparency during the process as well as more accountability structures are needed to improve participation projects.



In 2010, Dordrecht has done further research on citizen participation by looking at citizen involvement projects in 2007 and 2008 (Oosterhof & Schalk, 2010). Through this research report, it becomes clear that few projects actually concern co-production. To explain this, it is useful to look at the participation ladder as originally presented by Arnstein. This ladder has three broad levels of citizen participation (Maier, 2001). First, there is non-participation in which citizens are not included in any policy-making processes. Rather, policies are coerced upon citizens. Second, there is tokenism in which the government consults with citizens. Still, ultimate decision-making power lies with the government. The government can choose whether or not to do anything with the citizenry's input. Finally, there is citizen control which can be considered co-production. In this level of participation, citizens have decision-making power. This power can be through a partnership with the government, through delegation powers, or through full initiation with government funding. With this in mind, six out of the seven researched projects concern tokenism. Merely one project is actually co-production. So, this shows that Dordrecht does have a substantial focus on successful citizen participation in the municipality. However, this participation is often limited to consultation only. Moreover, this report shows some information on the characteristics of citizens that engage in these projects (Oosterhof & Schalk, 2010). For example, in the discussed projects, the majority of the citizens that co-produce is middle-aged, well-educated and a long-time resident of Dordrecht.

In 2017, the municipality of Dordrecht has created a regulation that concerns co-production (Wepster & van der Velden, 2017). This *participatie- en inspraakverordening*, describes when and how citizen participation is a useful tool in policy processes. There is a distinction made between informing, consulting, advising and co-producing as levels of citizen participation. The appropriate governing body can decide with which level of participation they want to engage.

So, although the municipality has paid some attention to co-production, there is still much to be done to incorporate co-production in legislation successfully. As of now, citizen participation in Dordrecht is quite limited to people who are familiar with the jargon of the government (Rekenkamercommissie Dordrecht, 2017). It is a challenge to make the expansion of co-production a priority.

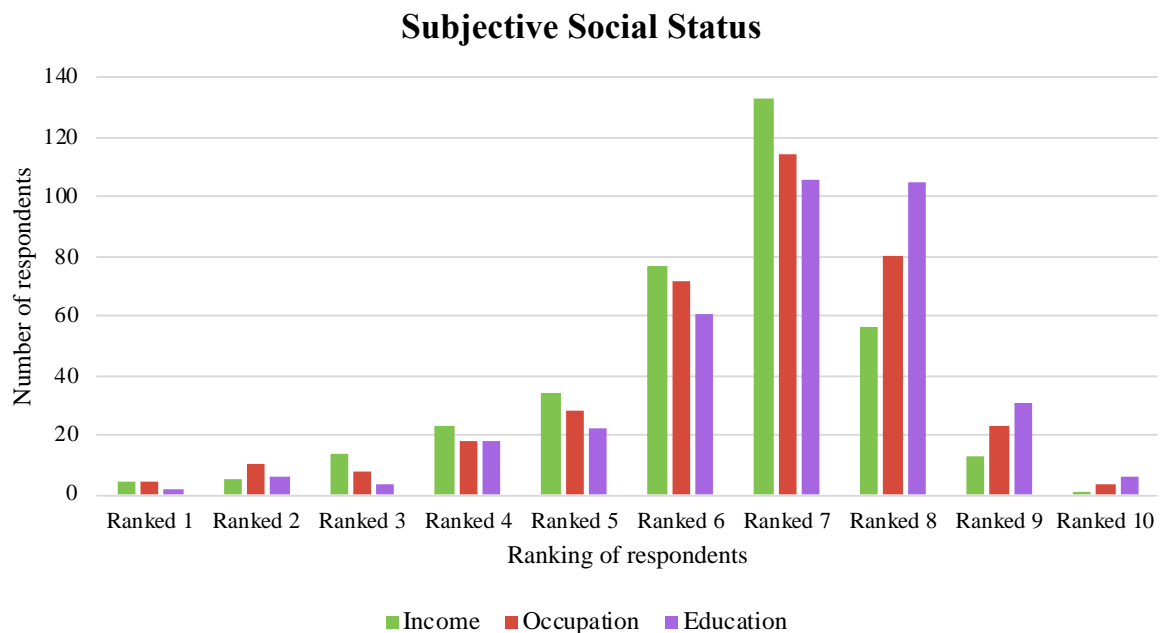
## 5. FINDINGS

After having distributed the survey, the sample size is made up out of 360 respondents. This is in line with an appropriate margin of error, namely 5%, and a standard confidence level, namely 95%. The findings of the survey are first descriptively discussed per variable. Thus, each variable's aggregated data is analysed and possible explanations for these results are explored. For the variable *SSS*, the correlation between the three indicators is also analysed. After the descriptive analysis, relevant statistical analyses are run. First, the Cronbach's Alpha for each variable is tested to measure internal consistency. The following statistical analyses include an ordinal logistic regression to assess the relationship between *SSS* and *Willingness to Co-Produce*, a mediating analysis to assess the role of *Sense of Community*, a mediation analysis to assess the role of *Presence of Motivators*, and a correlation analysis between *SSS* and *Presence of Motivators*.

Socio-demographic information on the respondents is not included in this research. One reason for this lies within the purpose of this research. This research does not aim to explore the relationship between residents' socio-demographic information and their *SSS* or their willingness to co-produce. Rather, the focus of this research regards the relationship between citizens' *SSS* and their willingness to co-produce. On top of that, this thesis focuses on the subjective perception of certain socio-demographic information. By asking their actual socio-demographic information, such as income levels, it could alter the respondents' answers on their subjective socio-demographic information. Finally, by asking personal information, potential respondents could be less willing to fill in the survey. To avoid this, no personal information is asked of the respondents in the survey.

### 5.1. Subjective Social Status

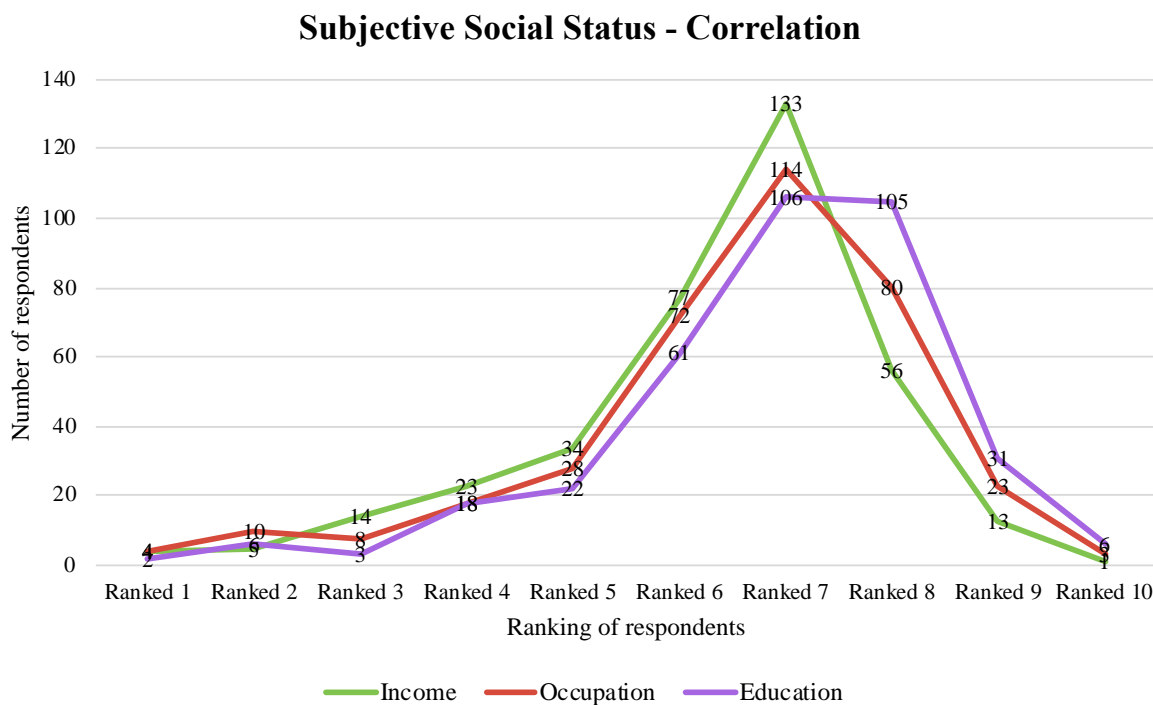
For the variable *SSS*, the survey contained three questions on each income, occupation and education according to the MacArthur Scale of *SSS*. In these questions, respondents were asked to rank themselves on a social ladder with 1 being the lowest social status, and 10 being the highest social status. To keep the survey questions and research on the same level of research, namely local governance, the social ladder was specified to be comparative to residents of Dordrecht.



*Figure 2. Results Subjective Social Status.*

When taken together, there are minimal differences between SSS in terms of income, occupation and education, as can be seen in Figure 2. The answers for SSS in terms of education were slightly more positive with an average ranking of 6.9 than for SSS in terms of occupation with an average ranking of 6.6, which was slightly more positive than for SSS in terms of income with an average ranking of 6.4. However, this slight difference is understandable. As mentioned, in the Netherlands, education is compulsory until age 16. If someone has not received a diploma at age 16, they are mandatory to attend some form of education until age 18. This ensures that the vast majority of the population at least finishes high school. On top of this, it is not common in the Netherlands to stop studying after high school. A study of Centraal Bureau van Statistiek (CBS) (2016) showed that 92% of all students continue studying after having received a high school diploma. Therefore, it is likely that many respondents have finished some form of higher education, which explains the slightly more positive outcome of the survey for this question. Moreover, it is also understandable that the average of SSS in terms of occupation is slightly higher than the average of SSS in terms of income. People generally have a choice when it comes to their occupation. There are, of course, some limitations such as one's education level. Still, people tend to aim for an occupation that they think is valuable in society. Finally, regarding the lower score of SSS in terms of income, people have the least influence on their income level compared to one's education level or occupation. This could

explain less satisfaction with their income level compared to the satisfaction of their education and occupation.



*Figure 3. Correlation of Subjective Social Status Indicators.*

Despite these minimal differences, Figure 3 demonstrates that the answers for all SSS indicators follow a similar pattern. There are not significant or abnormal outliers in the aggregated data. This indicates a correlation between the three dimensions of SSS. The greatest difference between the three dimensions lies with respondents who have ranked themselves at rank 8. In rank 8, the differences in the number of respondents are noteworthy. However, this difference explains the slight variation in average scores among the three dimensions. The difference in rank 8 is not significant enough to dismiss the existence of a correlation between the three dimensions of SSS, namely income, occupation and education.

To further confirm a correlation between the three indicators of SSS, a Pearson's correlation was run (Laerd Statistics, 2018a). The Pearson's correlation analysis is chosen since the goal is to determine the strength of the potential relationship between the three indicators of SSS. Moreover, for this type of analysis, SSS is treated as being a continuous variable. Two hypotheses are created which are tested by the Pearson's correlation analysis:

$H_0$  = The SSS correlation coefficient is equal to zero.

$H_A$  = The SSS correlation coefficient is not equal to zero.

There was a statistically significant, strong positive correlation between SSS in terms of income and SSS in terms of occupation,  $r = .607$ ,  $p < .05$ , as seen in Table 2. There was also a statistically significant, strong positive correlation between SSS in terms of occupation and SSS in terms of education,  $r = .521$ ,  $p < .05$ . Lastly, there was a statistically significant, moderate positive correlation between SSS in terms of income and SSS in terms of education,  $r = .493$ ,  $p < .05$ . Since the correlation coefficient for none of the conducted Pearson correlation runs is equal to zero, the null hypothesis can be rejected, and the alternative hypothesis can be accepted.

	SSS: Income	SSS: Occupation
SSS: Occupation	.607*	
SSS: Education	.493*	.521*

Table 2. Pearson Correlations for SSS.

\* = Statistically significant at  $p < .05$  level.

As assumed, income, occupation and education in relation to someone's SSS are correlated with each other. So, someone with a high perceived income on the social ladder is likely to also place their occupation quite high on the social ladder. This is also true for the relationship between the perceived status of someone's occupation and the perceived value of someone's education. The relationship between someone's perception of their income and someone's perception of their education is still positive, but less strong than the other two relationships. Still, taken together, there is quite a strong correlation between the three indicators of SSS.

## 5.2. Sense of Community

The variable *Sense of Community* is measured through four statements of the survey. These four statements are based on the four main themes that determine one's sense of community. These themes are, as can be seen in the operationalisation: trust, identification, perceived value and acceptance by the community. The respondents answered the statements through a 5-point Likert Scale, ranging from 'Strongly Agree' to 'Strongly Disagree'.

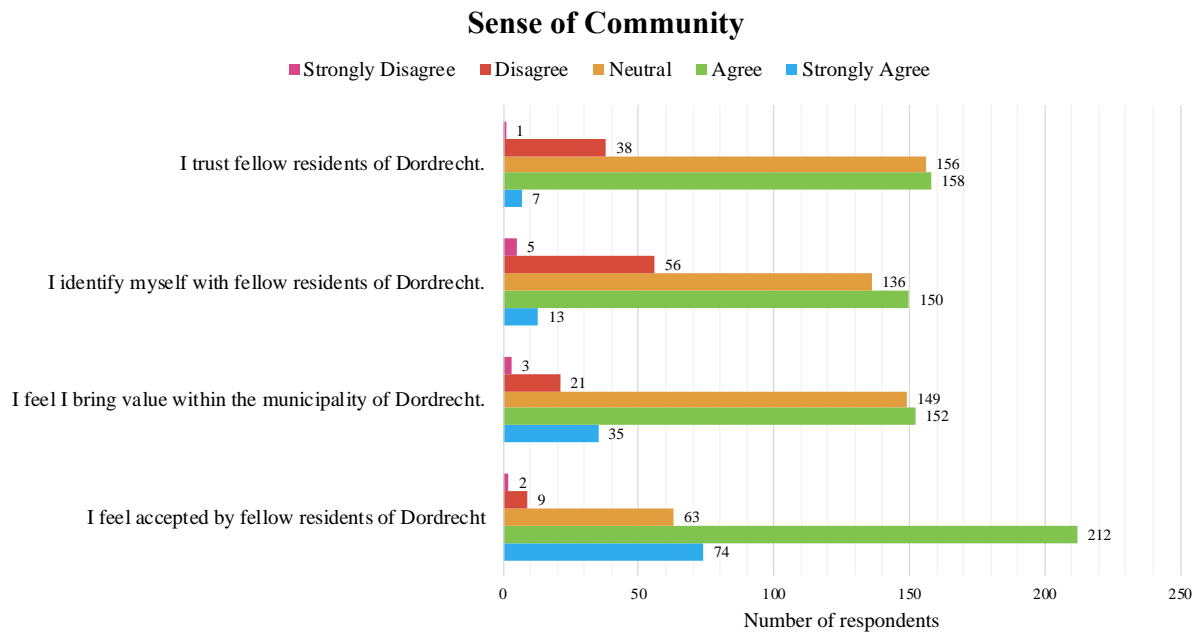


Figure 4. Results Sense of Community.

For each of the four statements, the biggest category is ‘Agree,’ as can be seen in Figure 4. This indicates a generally positive sense of community among the respondents. However, there are some differences between the four statements. The biggest outlier is the statement ‘I feel accepted by fellow residents of Dordrecht.’ This statement is answered particularly positive. Not only is ‘Agree’ a bigger category for the statement in question, the category ‘Strongly Agree’ is significantly bigger compared to the other three statements. This difference in attitude between the different statements is demonstrated in Table 3. This table shows the number of respondents that have answered the questions positive, neutral or negative in percentages.

	<b>I trust fellow residents of Dordrecht.</b>	<b>I identify myself with fellow residents of Dordrecht.</b>	<b>I feel I bring value within the municipality of Dordrecht.</b>	<b>I feel accepted by fellow residents of Dordrecht.</b>
<b>Positive</b>	45.8%	45.3%	51.9%	79.5%
<b>Neutral</b>	43.3%	37.8%	41.4%	17.5%
<b>Negative</b>	10.9%	17%	6.6%	3.1%

Table 3. Results Sense of Community in Percentages.

As becomes visible in Table 3, the statement “I identify myself with fellow residents of Dordrecht” has a relatively high percentage of negative answers. The statements “I feel I bring value within the municipality of Dordrecht” and “I trust fellow residents of Dordrecht” have a relatively high percentage of neutral answers. For the latter, the percentage of neutral positive is almost the same as the percentage of positive answers. It could be the case that “I feel accepted by fellow residents of Dordrecht” got the most opinionated answers because this statement speaks most to the imagination. The high number of neutral responses of the other three statements could indicate a lack of opinion on these statements, because these were less easily visualised by the respondents. Yet, these claims are merely assumptions and should be taken with a grain of salt.

So, when focusing on *Sense of Community*, the respondents generally have a high sense of community. Citizens’ sense of community derives mostly from their felt acceptance by other members of the community. Next, citizens feel closer to the community when they feel they bring value to the community. Less important is the trust citizens have in fellow residents of their community. Finally, citizens’ identification with fellow residents of the community contributes the least to their sense of community.

### **5.3. Presence of Motivators**

The survey contained ten statements to measure the variable *Presence of Motivators*. Two statements related to material motivators (M), one statement concerns sanctions as a motivator (S), two statements referred to self-esteem as a motivator (S-E), three statements related to normative motivators (N), and two statements referred to solidary motivators (SLD). The abbreviations will be used to indicate the different types of motivators. These statements are answered on a 5-point Likert Scale, ranging from ‘Strongly Agree’ to ‘Strongly Disagree’.

Figure 5 displays the answers on all statements, with the most positively answered statement at the top, and the least positively answered statement at the bottom. As can be seen, most statements follow a certain trend when it comes to the difference in answers. However, there are some statements with interesting deviances.

The most positive received motivator of co-production concerns the potential increase in citizen participation caused by co-production, which makes it an effective way to motivate

citizens to co-produce. Another effective motivator is the feeling of citizens about co-production being the right thing to do. The next motivator with a high positive response is the idea that co-production gives citizens a purpose in society. However, this motivator has a surprisingly high amount of negative responses with 20% of the respondents disagreeing. It might be the case that people already feel they have a purpose in society and are therefore less motivated by this idea. Nonetheless, the general response to this motivator is quite positive. Another motivator that is met with a positive response from the majority of the respondents is the increased felt connection with the municipality of Dordrecht. Thus, citizens are likely to feel more connected to their city by co-producing. The potential increase of democracy is also a relatively effective motivator of co-production. However, there are relatively many neutral responses to this statement, namely 33.6%. The high number of neutral responses could potentially be the result of a lack of opinion on this matter.



### Presence of Motivators\*

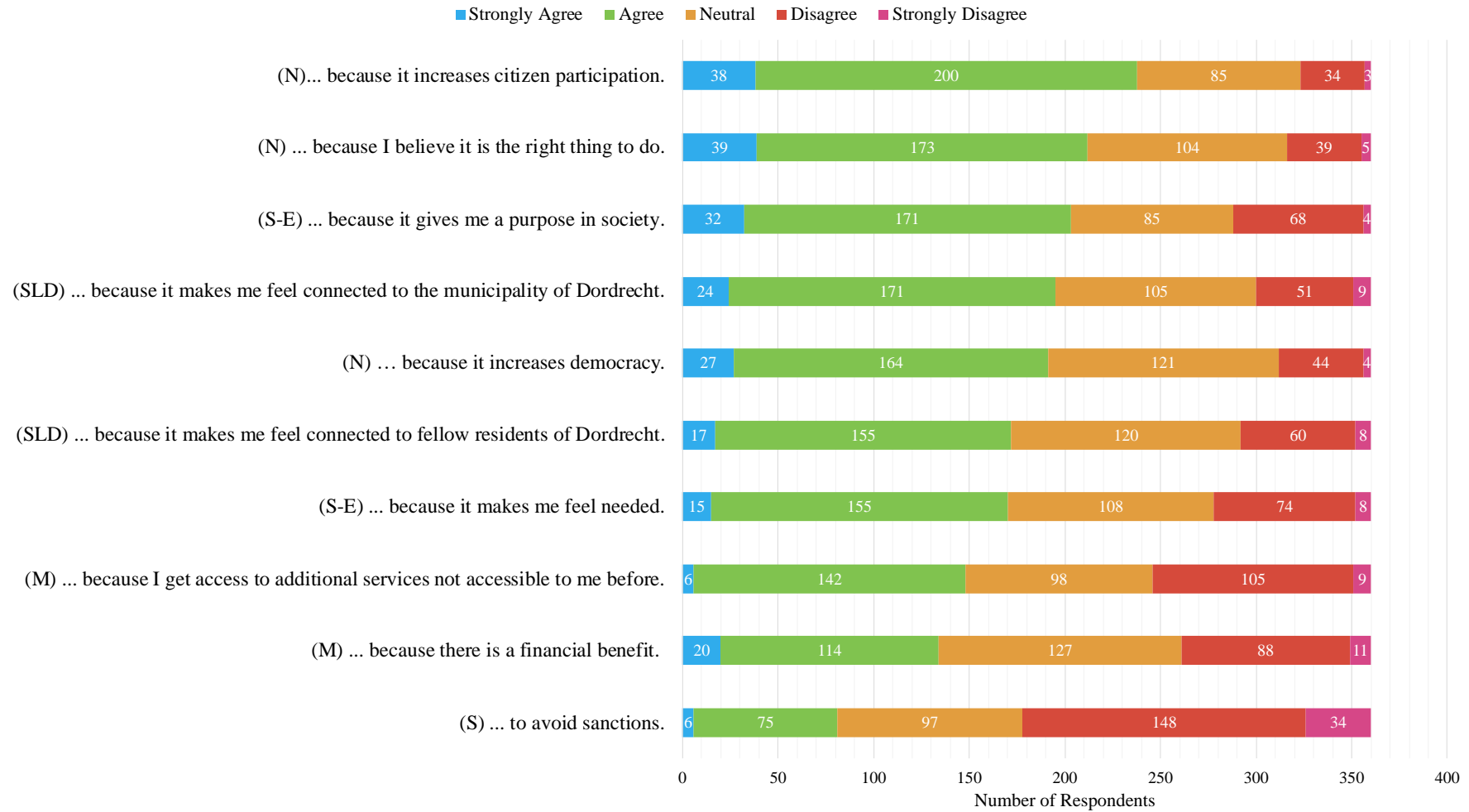


Figure 5. Results Presence of Motivators: Ranked on Positive Answers.

\* Each statement is preceded by "I would like to collaborate with the municipality of Dordrecht..."

In the remaining motivators, less than half of the respondents answered positively. This means that more than half of the respondents had either neutral or negative attitudes towards these motivators. One of these motivators is the potential increased connection with residents of Dordrecht. To generalise, this motivator implies that citizens might be motivated to co-produce since it causes an increase in the interconnectedness with fellow residents of their city. Another questionable motivator is the idea that co-production makes citizens feel needed. A potential feeling of being indispensable to society is not the most effective way to motivate citizens to co-produce. One of the least positively received motivators is the promise of access to additional public services when a citizen decides to engage in co-production. Even though the positive responses outweigh the negative responses, compared to the previously discussed motivators, these percentages indicate low effectiveness of this motivator. Another motivator with low positive response rate is the promise of a financial reward when engaging in co-production. This implies that citizens could be motivated by financial compensation for their efforts in a co-production process. Yet, few respondents think this is a good idea. Interestingly, 5,6% is highly positive about this motivator, which is relatively high for a less well-received motivator. Moreover, there are relatively few negative responses. Only 27,5% cannot be motivated by a financial reward. These results could indicate that a financial benefit is not enough to motivate people to co-produce, but that people would not necessarily turn down a financial benefit if it is offered to them. Finally, the least effective motivator is the threat of sanctioning. This motivator implies that citizens would want to co-produce because if they do not co-produce, they will be met with some form of punishment. There are relatively many highly negative responses, namely 9.4%. In comparison, the other motivators' number of respondents that are highly negative range from 0,8% to 3,1%. This indicates that many people are very against the idea of sanctioning being a motivator of co-production.

	<b>Material Motivators</b>	<b>Sanctioning Motivators</b>	<b>Self-Esteem Motivators</b>	<b>Normative Motivators</b>	<b>Solidary Motivators</b>
<b>Positive</b>	39,2%	22,5%	51,8%	59,3%	51,0%
<b>Neutral</b>	31,3%	26,9%	26,8%	28,7%	31,3%
<b>Negative</b>	29,5%	50,4%	21,4%	11,9%	17,7%

*Table 4. Results of the Effectiveness of Different Motivator Types in Percentages.*

So, as becomes clear in Figure 6 as well as in Table 4, some conclusions can be drawn on which type of motivators are the most effective. First, the most effective motivator type is

normative motivators. Normative motivators appeal to the moral standard of citizens since it is about co-production being morally right. Generally, the three statements on normative motivators have received the highest amount of positive responses, as well as the lowest amount of negative responses. Within the normative motivators, the potential increase in citizen participation is the most effective motivator of co-production, followed by the feeling that co-production is the right thing to do and by the potential increase in democracy within society.

Second, the next most effective motivator type is solidary motivators. Solidary motivators refer to the idea that citizens might feel personally rewarded by associating with other citizens through co-production. Thus, this type of motivator appeals to the desire of social cohesion of citizens. Of the solidary motivators, the best-received motivator was the potential increased connection to the city by engaging in co-production, followed by the potential increased connection to the residents of that city by engaging in co-production. Thus, citizens are generally more motivated by getting closer to the city rather than its residents.

Third, a relatively effective motivator type is motivators that appeal to people's self-esteem. It is worth noting that this motivator type is very close in effectiveness to solidary motivators. In fact, self-esteem motivators are received slightly more positively than solidary motivators. Yet, self-esteem motivators are received more negatively than solidary motivators, which makes solidary motivators slightly more effective. The most effective self-esteem motivator is the idea that co-production gives citizens a purpose in society, followed by the idea that citizens feel needed when they engage in co-production.

Fourth, one of the less effective motivator types is material motivators. Material motivators appeal to the self-interest of citizens since they can get a rather tangible benefit from co-production. However, this motivator type has proven to be not very effective. Relatively, material motivators received many negative responses and few positive responses. When looking at the different material motivators, a financial reward is perceived slightly more positive than access to an additional public service. Nevertheless, the difference between these two material motivators is extremely minimal. So, the effectiveness of material motivators is limited.

Finally, the least effective motivator type is the motivator that focuses on sanctioning. This type of motivator appeals to the fear of sanctioning of citizens since it is argued that

citizens might co-produce if there is a looming threat of some form of punishment. Yet, as this research shows, this motivator type is perceived very negatively. Over half of the respondents are not sensitive to sanctioning being a motivator to co-produce. So, sanctioning is a very ineffective way of getting citizens to co-produce.

#### 5.4. Willingness to Co-Produce

To measure the variable *Willingness to Co-Produce*, the survey contained three statements. These three statements correlate to the three main conditions of co-production, namely the cooperation with public service agents, the contribution to the creation of public services, and the active involvement in the co-production process. The assumption that the respondent is capable of co-producing is specified in each statement. This is done purposefully, since the goal of this research is to determine one's willingness to co-produce, rather than one's ability to co-produce. The statements are answered on a 5-point Likert Scale, ranging from 'Strongly Agree' to 'Strongly Disagree'.

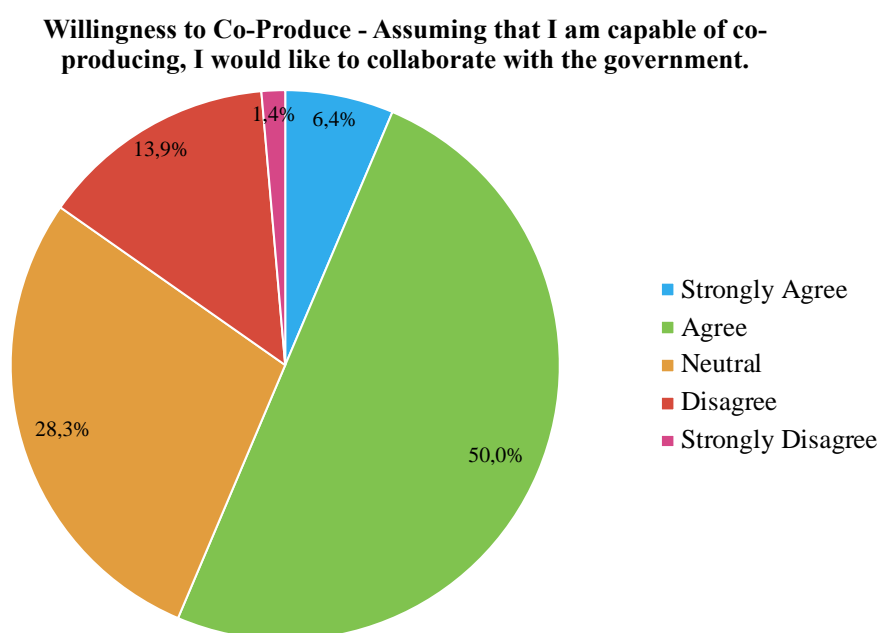
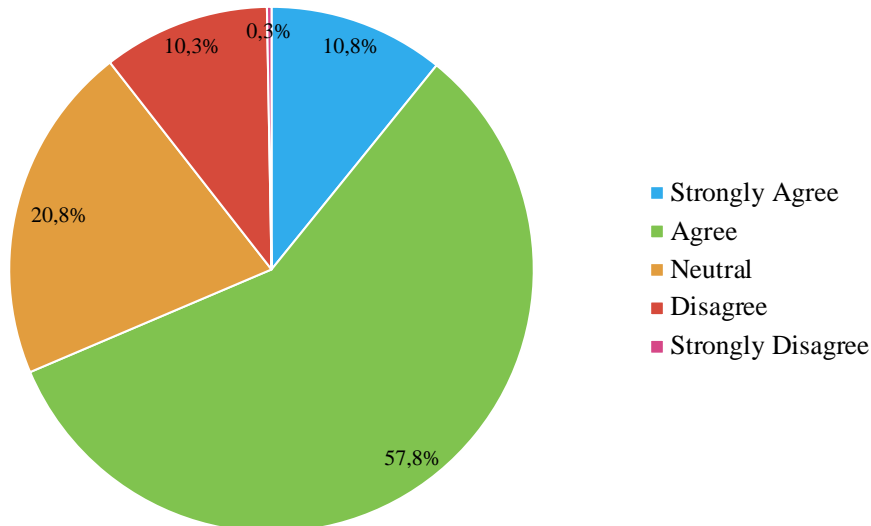


Figure 6. Results Willingness to Co-Produce on 'Assuming that I am capable of co-producing, I would like to collaborate with the government.'

The biggest category of the statement on willingness to collaborate with the government is 'Agree,' as seen in Figure 6. In total, 56,4% is positive about collaborating with the government, of which 6,4% is highly positive. On the contrary, 15,5% has a negative opinion

on the matter, of which 1,4% is highly negative. The remaining 28,3% is neutral on the matter. So, generally, people are quite willing to cooperate with public service agents, which would indicate a general willingness to co-produce. However, as mentioned before, there are two more aspects of co-production which need to be considered.

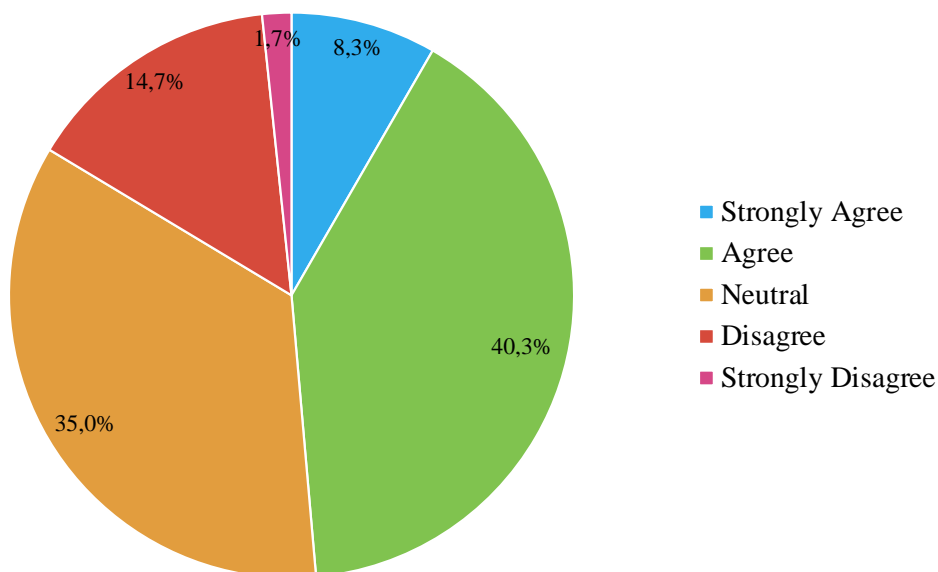
**Willingness to Co-Produce - Assuming that I am capable of co-producing, I would like to contribute to the improvement or development of public services.**



*Figure 7. Results Willingness to Co-Produce on 'Assuming that I am capable of co-producing, I would like to contribute to the improvement or development of public services.'*

As demonstrated in Figure 7, the biggest category for the statement regarding willingness to contribute to the improvement or development of public services is again 'Agree'. Of the 360 respondents, 68,6% is positive in contributing to developing public services, of which 10,8% is highly positive. 20,8% of the respondents takes a neutral stance towards this subject. The number of negative responses is 10,3%, of which only 0,3% is highly negative. Again, this indicates a high willingness to co-produce.

**Willingness to Co-Produce - Assuming that I am capable of co-producing, I would like to be actively involved in the co-production process.**



*Figure 8. Results Willingness to Co-Produce on 'Assuming that I am capable of co-producing, I would like to be actively involved in the co-production process.'*

The final statement on *Willingness to Co-Produce*, the willingness to be actively involved in the co-production process, has the least positive response of the three statements. Still, the category 'Agree' remains the biggest category, as demonstrated in Figure 8. 48,3% of the respondents are positive on the matter, of which 8,3% is highly positive. However, 35% of the respondents are negative on being actively involved in the co-production process. 1,7% even has a highly negative opinion. The category neutral is especially big regarding this statement. Since less of half the respondents are positive, it cannot be assumed that people are generally willing to co-produce when looking at this statement.

So, after looking at all three statements on *Willingness to Co-Produce*, a conclusion can be drawn. The most positive attitudes are given on the willingness to contribute to the creation of public services. It can be presumed that respondents were likely aware of their potential personal benefit of improving existing or creating new public services. This could explain the more positive response to this aspect of co-production in particular. Moreover, this statement has the least number of negative attitudes and a relatively low number of neutral attitudes. Then, another statement with a high amount of positive responses is on the willingness to cooperate with public service agents. More than half of the respondents were positive on collaborating

with the government. Interestingly, out of the three statements, this statement has the least amount of highly positive responses. So, generally, people are a bit less enthusiastic about working with the government compared to the other two statements. Nonetheless, there are few negative attitudes on this statement. Finally, the least positive attitudes are given on the willingness to be actively involved in the co-production process. It can be the case that people are fond of the idea of co-production but are less willing to put actual effort into it. Still, on this last statement, people are not necessarily more negative than on the other two statements. Yet, the category ‘Neutral’ is significantly bigger. So, even though people are less willing to be actively engaged in co-production, they are not necessarily against the idea entirely.

When taking all three statements together, the general willingness to co-produce is positive. In total, 57,9% is positive on all three aspects of co-production, as can be seen in Table 5. Of this number, 8,5% is highly positive on the idea of co-production. In total, 14,1% is negative about the three aspects of co-production, of which 1,1% is highly negative. This is quite a low percentage, and it can, therefore, be argued that generally, few people are against the idea of co-production. However, there is also 28,0% that is neutral on the idea of co-production.

<b>Strongly Agree</b>	8,5%
<b>Agree</b>	49,4%
<b>Neutral</b>	28,0%
<b>Disagree</b>	13,0%
<b>Strongly Disagree</b>	1,1%

*Table 5. Total Results on Willingness to Co-Produce in Percentages.*

### **5.5. Relationships between Variables**

Now that all variables are discussed separately, it is time to look at the relationships between the different variables. To do this, it is useful to take a look at the conceptual framework as established in Chapter 3.

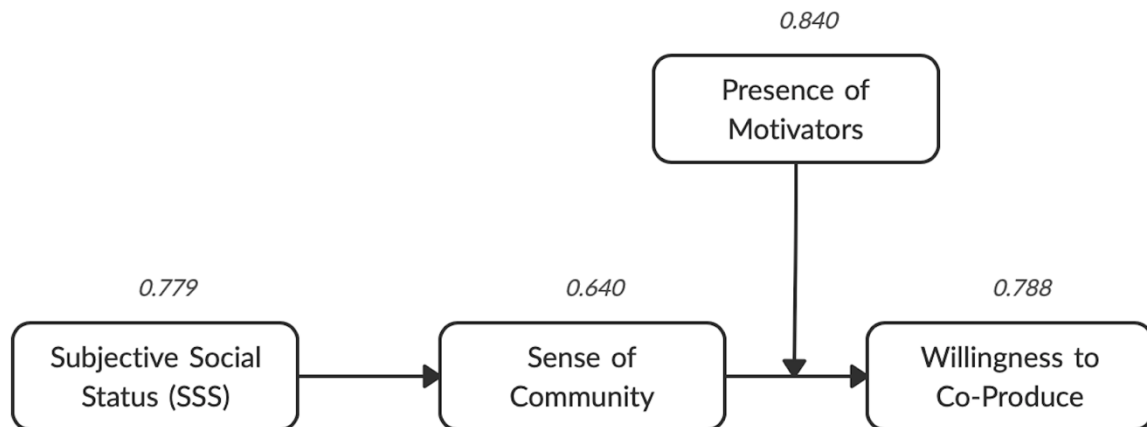


Figure 9. Conceptual Framework including the Cronbach's Alpha of each variable.

In Figure 9, each variable is accompanied by their Cronbach's Alpha. The Cronbach's Alpha measures the internal consistency of the different indicators of each variable. As mentioned already, each variable was measured through several statements in the survey. Therefore, it was necessary to assess the consistency between these different statements. The Cronbach's Alpha of *SSS* and *Willingness to Co-Produce* are both acceptable. The Cronbach's Alpha of *Presence of Motivators* is good. However, the Cronbach's Alpha of *Sense of Community* is questionable. This is not a big problem in the following analyses, but it is important to keep in mind that the results of the analyses that include *Sense of Community* might be a bit limited.

### 5.5.1. The Relationship Between *SSS* and *Willingness to Co-Produce*

The main aim of this research is to assess the relationship between *SSS* and *Willingness to Co-Produce*. It is interesting to see whether there is a relationship at all and if yes, if this relationship is positive or negative. To determine this, an ordinal logistic regression was run (Laerd Statistics, 2015). The aggregated data is prepared for this statistical test by computing the two relevant variables into separate mean scores. This way, the data is treated as one variable instead of treating it as multiple indicators. Each respondent now has one score for *SSS*, and one score for *Willingness to Co-Produce*. These scores show the respondent's general attitude towards both variables. With the data being organised into mean scores, a PLUM analysis is run. The PLUM analysis is necessary to test the assumptions that are inherent to an ordinal logistic regression. Then, a GENLIN analysis is run to assess the relationship between *SSS* and *Willingness to Co-Produce*.



First, it is useful to assess how well the statistical model fits the aggregated data. In this case, the used model is a good fit with the used data,  $X^2(1) = 21.782, p = <.001$ . This is derived from the section *Model Fitting* Information from the PLUM analysis. This means that this model can be used to analyse the remaining results.

Second, several assumptions need to be met to run a successful ordinal logistic regression. One of these assumptions concerns the absence of multicollinearity. One speaks of multicollinearity when the used independent variables are very similar in results (Laerd Statistics, 2015). Yet, within this regression, there is only one independent variable: *SSS*. Because this variable is computed as a mean, it translates to only one score per respondent. Therefore, the assumption of no multicollinearity is met. Because there is no multicollinearity to be tested, there is no need to create dummy variables.

Third, the ordinal logistic regression has an assumption that there are proportional odds. To simplify, this means that the independent variable has a similar effect on each level of the dependent variable. *Willingness to Co-Produce* is measured a 5 pt. Likert Scale, which is transformed into dichotomous cumulative categories. These form the different levels of the dependent variable. Thus, *SSS* must have an identical effect on each level of *Willingness to Co-Produce*. This assumption of proportional odds is met, as assessed by a full likelihood ratio test,  $X^2(11) = 5.699, p = .893$ . This data is found in the section *Test of Parallel Lines* of the PLUM analysis.

Fourth and most importantly, the regression provided insight into the relationship between *SSS* and *Willingness to Co-Produce*. It became clear that an increase in *SSS* is associated with an increase in *Willingness to Co-Produce*, with an odds ratio of 1.398. This is statistically significant with  $p < 0.005$ . This conclusion is drawn from the *Parameter Estimates* section of the GENLIN analysis. Thus, when someone's *SSS* would increase in terms of one place up the social ladder, their willingness to co-produce increases with 139.8%. So, this indicates that people with a higher *SSS* level are more likely to be willing to co-produce, whereas people with a lower *SSS* level are less likely to be willing to co-produce. The ordinal logistic regression can be found in Appendix 2, with the mentioned numbers highlighted.

### 5.5.2. Sense of Community as a Mediating Variable

In this research, *Sense of Community* functions as a mediator of the relationship between *SSS* and *Willingness to Co-Produce*. To measure the mediating effect of *Sense of Community*, a mediating analysis has been done through Andrew F. Hayes' SPSS extension called Process. This analysis aims to see whether there is a mediating relationship, and if so, how much someone's sense of community accounts for their willingness to co-produce. First, it needs to be established whether there is a correlation between *SSS* and *Sense of Community*, as well as a correlation between *Sense of Community* and *Willingness to Co-Produce*. As Figure 10 demonstrates, there was a significant standardised regression coefficient between both *SSS* and *Sense of Community*, and *Sense of Community* and *Willingness to Co-Produce*.

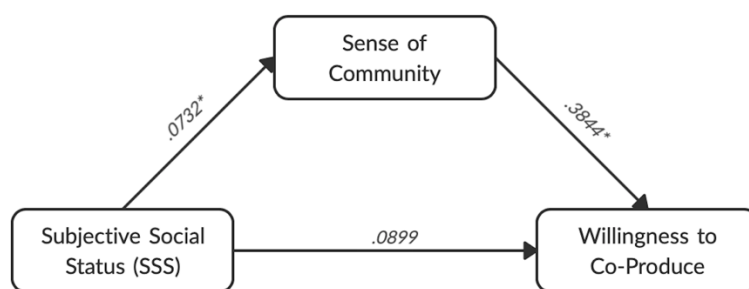


Figure 10. Standardised regression coefficients for the relationship between *SSS* and *Willingness to Co-Produce* as mediated by *Sense of Community*.

\* Significance:  $p < .05$ .

Second, when deciding whether *Sense of Community* acts as a mediator, there needs to be an indirect effect between *SSS* and *Willingness to Co-Produce*. To test the indirect effect for significance, the method bootstrapping is used. The bootstrapped unstandardized indirect effect was .0281, and the 95% confidence interval ranged from .0103 to .0493. Thus, the indirect effect was statistically significant, which means that *Sense of Community* is a significant mediator.

Finally, to determine the mediation effect size, attention is paid to the per cent mediation ( $P_m$ ). With  $P_m = .3129$ , it can be said that the effect size of *Sense of Community* being a mediator is 31,3%. The explanation for this can be found in Figure 11. This means that

someone's SSS accounts for 68,7% of the outcome of their willingness to co-produce, while the remaining 31,3% is managed through their sense of community. Thus, *Sense of Community* causes a partial mediation of the relationship between *SSS* and *Willingness to Co-Produce*. The mediation analysis can be found in Appendix 3, with the mentioned numbers highlighted.

$$Pm = \frac{.0732 * .3844}{.0899} = .3129 * 100\% = 31,3\%$$

Figure 11. Explanation Per Cent Mediation.

### 5.5.3. Presence of Motivators as a Moderating Variable

In this research, *Presence of Motivators* acts as a moderating variable between *Sense of Community* and *Willingness to Co-Produce*. To measure the moderating effect of *Presence of Motivators*, a moderation analysis was conducted. This moderation analysis has been done with the help of Andrew F. Hayes' SPSS extension called Process. This run is done to see whether *Presence of Motivators* acts as a moderator and if yes, in which circumstances it acts as a moderator. Two hypotheses are created about the moderation analysis:

$H_0$  = There is no moderating effect of *Presence of Motivators* on the relationship between *Sense of Community* and *Willingness to Co-Produce*.

$H_A$  = There is a moderating effect of *Presence of Motivators* on the relationship between *Sense of Community* and *Willingness to Co-Produce*.

First, it needs to be established whether there is a correlation between *Presence of Motivators* and *Willingness to Co-Produce*, as well as a correlation between *Sense of Community* and *Willingness to Co-Produce*. As shown in Figure 12, both standardised regression coefficients were not statistically significant.

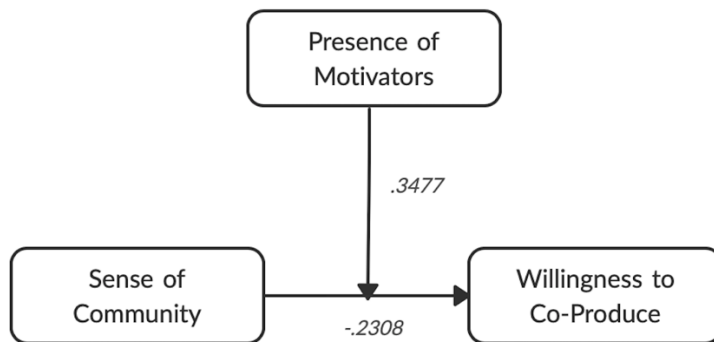


Figure 12. Standardised regression coefficients for the relationship between Sense of Community and Willingness to Co-Produce as moderated by Presence of Motivators.

\* Significance:  $p < .05$ .

Second, to assess the moderating effect of *Presence of Motivators*, it is important to look at the interaction term. The interaction term indicates the interaction between *Sense of Community* and *Presence of Motivators*, and how each of these affects *Willingness to Co-Produce*. The interaction term was not statistically significant,  $b = .13$ ,  $t(356) = 1.13$ ,  $p = .26$ . This indicates that *Presence of Motivators* is not a significant moderator of the effect of *Sense of Community* on *Willingness to Co-Produce*. Therefore, the null hypothesis can be accepted while the alternative hypothesis can be rejected. There is no moderating effect of *Presence of Motivators* on the relationship between *Sense of Community* and *Willingness to Co-Produce*. Because of this, it is not useful to look at the circumstances in which *Presence of Motivators* would be relevant. The moderation analysis can be found in Appendix 4, with the mentioned numbers highlighted.

#### 5.5.4. The Relationship Between SSS and Presence of Motivators

Despite *Presence of Motivators* not being a statistically significant moderator, it is still interesting to see whether someone's SSS level determines one's acceptance towards certain types of motivators. To assess this, a Spearman's rank-order correlation was run (Laerd Statistics, 2018b). The Spearman's correlation analysis is chosen since the goal is to determine whether a relationship between the two variables exists. Moreover, *Presence of Motivators* is an ordinal variable, whereas SSS can be treated as either ordinal or continuous. For this analysis, SSS is considered to be an ordinal variable. This lends itself well to the Spearman's correlation analysis. The Spearman's correlation was run separately for each type of motivator: material,

sanctioning, self-esteem, normative and solidary. The goal of this analysis is to see whether there are relationships between the different types of motivators and someone's SSS and if yes, to determine how strong this relationship is. Two hypotheses are created for each separate Spearman's correlation run:

$H_0$  = There is no association between someone's SSS level and the acceptance towards the relevant type of motivator.

$H_A$  = There is an association between someone's SSS level and the acceptance towards the relevant type of motivator.

There was a statistically significant, very weak positive correlation between someone's SSS and their acceptance of material motivators of co-production,  $r_s = .141$ ,  $p < .05$ . Therefore, the null hypothesis can be rejected, and the alternative hypothesis can be accepted.

There was no statistically significant correlation between someone's SSS and their acceptance of the sanctioning motivator of co-production,  $r_s = .100$ ,  $p = .058$ . Therefore, the null hypothesis cannot be rejected, and the alternative hypothesis cannot be accepted.

There was a statistically significant, weak negative correlation between someone's SSS and their acceptance of self-esteem motivators of co-production,  $r_s = -.203$ ,  $p < 0.05$ . Therefore, the null hypothesis can be rejected, and the alternative hypothesis can be accepted.

There was a statistically significant, very weak negative correlation between someone's SSS and their acceptance of normative motivators of co-production,  $r_s = -.169$ ,  $p < 0.05$ . Therefore, the null hypothesis can be rejected, and the alternative hypothesis can be accepted.

There was a statistically significant, very weak negative correlation between someone's SSS and their acceptance of solidary motivators of co-production,  $r_s = -.182$ ,  $p < 0.05$ . Therefore, the null hypothesis can be rejected, and the alternative hypothesis can be accepted. These results are compiled in Table 6.

	<b>Material Motivators</b>	<b>Sanctioning Motivators</b>	<b>Self-Esteem Motivators</b>	<b>Normative Motivators</b>	<b>Solidary Motivators</b>
<b>SSS</b>	.141*	.100	-.203*	-.169*	-.182*

Table 6. Spearman Correlations for SSS and Presence of Motivators.

\* = Statistically significant at  $p < .05$  level.

So, with four out of five Spearman's correlation runs have proven to be statistically significant, it can be argued that there is a general correlation between someone's SSS level and their acceptance of different types of motivators. However, with four out of five correlations being very weak, it is likely that the general correlation between someone's SSS level and their acceptance of different types of motivators is very minimal.

## 5.6 From Data to Reality

Now that data is gathered, both descriptively and statistically, the question remains on what to do with this data. The next step is to bring meaning to the accumulated data. To do this, it is worthwhile to reflect on the data in light of the framework of this research, as well as in light of the existing theory. Whereas some assumptions of this research are confirmed by the results, some results are quite surprising. Therefore, it is important to analyse the results on a deeper level. By doing so, it is possible to understand the implications for this research and existing theory, and how these results can be translated into practical recommendations.

## 6. ANALYSIS

The presented findings in the last chapter lead to several conclusions. First, there are implications for the framework that is built during this research. Second, there are theoretical implications which involve the existing theories on this subject. Finally, there are some practical implications which mainly concern how this conducted research can be used in both academics and governance in the future.

## 6.1. Implications for This Research

Now that the aggregated data is visualised and explained, it is possible to look back at the methodology used in this research. The main concerns are either confirming or rejecting the created hypotheses, as well as answering the research question of this thesis.

### 6.1.1. Hypotheses

Several hypotheses are set up in order to frame this research. After analysing the findings, it is possible to revisit these hypotheses, which are shown in Figure 13.

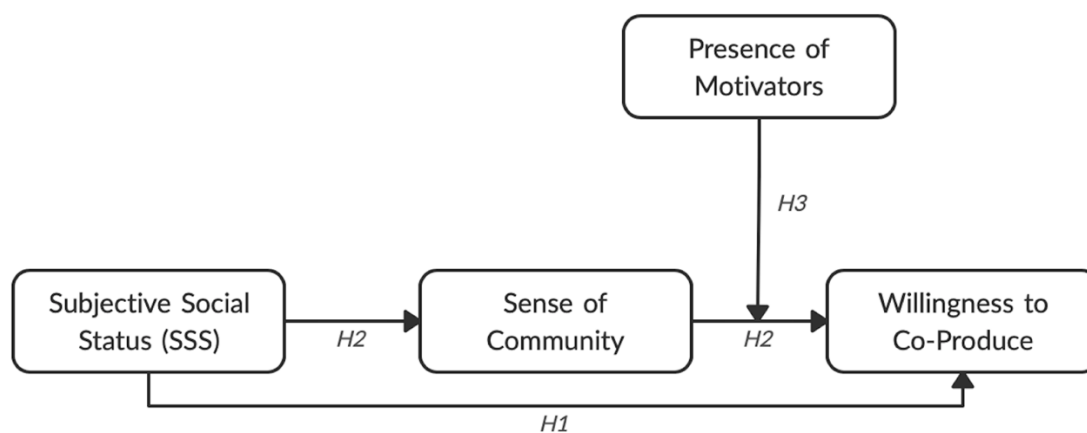


Figure 13. Conceptual Framework.

The first hypothesis concerns the relationship between *SSS* and *Willingness to Co-Produce*:

*H1: An individual's SSS determines their willingness to co-produce.*

As the ordinal logistic regression demonstrates, there is a relationship between *SSS* and *Willingness to Co-Produce*. This relationship proves to be a positive relationship. This means that when someone's *SSS* increases, so does their willingness to co-produce. The ratio of this increase is 139.8%. This is quite a substantial increase. So, it can be concluded that the higher an individual's *SSS*, the higher their willingness to co-produce is. Therefore, *H1* is confirmed.

The second hypothesis concerns the mediating effect of *Sense of Community* on the relationship between *SSS* and *Willingness to Co-Produce*. This hypothesis consists of two parts.

*Sense of Community* was hypothesised to both have a relationship with *SSS* and *Willingness to Co-Produce*:

*H2: An individual's sense of community acts as a mediator on the relationship between SSS and Willingness to Co-Produce.*

As a mediating analysis shows, there is a significant relationship between *SSS* and *Sense of Community*. It also demonstrates that there was a significant relationship between *Sense of Community* and *Willingness to Co-Produce*. However, by just establishing significant relationships between variables, it is not possible to make a convincing argument about the mediating role of *Sense of Community*. To do this, attention has to be paid to the per cent mediation. The per cent mediation, in this case, is 31.3%, which means that someone's willingness to co-produce is for 68.7% determined by their *SSS*, while the remaining 31.3% is determined by their sense of community. Thus, there is a partial mediation by *Sense of Community* on the relationship between *SSS* and *Willingness to Co-Produce*. Therefore, H2 is confirmed.

The third and final hypothesis concerns the moderating effect of *Presence of Motivators* on the relationship between *Sense of Community* and *Willingness to Co-Produce*:

*H3: The presence of the co-production motivators functions as a moderator on the relationship between Sense of Community and Willingness to Co-Produce.*

As a moderating analysis shows, there is no statistically significant relationship between *Presence of Motivators* and the relationship between *Sense of Community* and *Willingness to Co-Produce*. Yet, this information alone cannot yet reject H3. Attention needs to be paid to the interaction term. However, the interaction term is not statistically significant either. *Presence of Motivators* is not a moderator on the relationship between *Sense of Community* and *Willingness to Co-Produce*. Hence, H3 is rejected. Nonetheless, the rejection of H3 does not mean that co-production motivators are entirely ineffective. As the descriptive statistics demonstrate, most respondents are not necessarily against the presence of motivators. In fact, the respondents generally answered with a positive attitude towards half of the discussed motivators. The rejection of H3 means that the relationship between *Sense of Community* and *Willingness to Co-Produce* does not depend on the presence of co-production motivators. So,



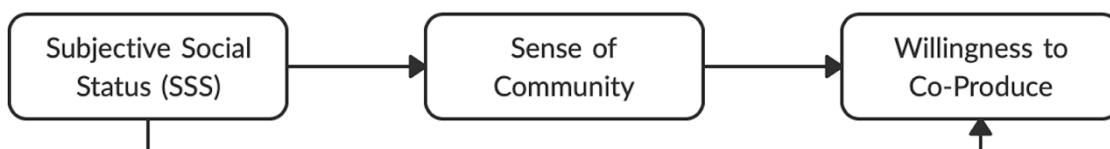
an individual's willingness to co-produce is adequately explained by their sense of community. In this context, the presence of motivators does not contribute to an individual's willingness to co-produce. Yet, because the presence of motivators does not matter in this context, its effectiveness cannot be dismissed in different research contexts.

### **6.1.2. Research Question**

With this knowledge, it is possible to answer the research question of this thesis. The research question is:

*What is the influence of citizens' perceptions of their social inequality level on citizens' willingness to co-produce in the municipality of Dordrecht?*

After surveying residents of the municipality of Dordrecht, it can be argued that there is a relationship between citizens' perceptions of their SI level and their willingness to co-produce. An individual who sees their SI level as relatively high is more likely to be willing to co-produce on a local government level. At the same time, an individual who believes their SI level is relatively low is less likely to be willing to co-produce on a local government level. However, in both cases, the relationship is partly mediated by an individual's sense of community. The community is connected to the appropriate level of government. In this case, all residents of Dordrecht functions as the community, as the municipality of Dordrecht was this research's case study to assess citizens' willingness to co-produce. The extent of an individual's willingness to co-produce can thus not be fully explained by their perception of their SI level. Part of someone's willingness to co-produce depends on their sense of community. This leads to a revised version of the conceptual framework as used in this research, as seen in Figure 14.



*Figure 14. Revised Conceptual Framework.*

## **6.2. Theoretical Implications**

The results from the conducted research have several theoretical implications. Potential disparities between existing academic research and this research should be discovered to move academics forward.

### ***6.2.1. Social Inequality Theories Revisited***

As for theories related to SI and its perception, it is difficult to draw satisfying conclusions due to this research focus on co-production. By ranking themselves on the social ladder in the survey, it becomes clear that people have some class consciousness, as described by Carvacho and Álvarez (2019). Nonetheless, it is possible that people started thinking about their place on the social ladder because it is asked of them on the survey. This is also the case for social categorisation theory, which argues that people put themselves in a certain category in relation to other categories (Howard & Renfrow, 2014; Hogg, 2006). This research would confirm this, but only because the questions were specifically designed in a way that would confirm this theory. Therefore, this research does not provide more insight into theories of class consciousness or social categorisation.

Social comparison theory argues that people tend to rank themselves on a social ladder when it improves their perception of themselves (Stets & Burke, 2000). This assumes that people tend to only rank themselves when they can place themselves at a relatively high place. Therefore, it could be argued that this theory would translate into a high average SSS score. The average SSS score of this research is 6.6 which is not particularly high. This would challenge social comparison theory. However, the respondents of this survey did not have an option to not rank themselves. Therefore, this argument is flawed and the insights into social comparison theory are limited. Moreover, intersectionality also plays a role in the ranking of citizens (Collins & Bilge, 2016). In this survey, the community is pre-set. The respondents are required to think of themselves in relation to other residents of Dordrecht. Their ranking could be a lot different if they are asked to focus on a different community.

Social identity theory which argues that people want to belong to the in-group instead of the out-groups (Stets & Burke, 2000; Luhtanen & Crocker, 1992). The majority of the

respondents' answers are close to the average SSS score of 6.6. This would confirm this theory. However, the survey did not ask for the respondents' motivation for their ranking, which makes it difficult to give a conclusion on this matter.

As mentioned in some literature, SSS is an adequate way of addressing someone's perception of their place in the social hierarchy (Schneider, 2019). This research confirms this to some extent since the three indicators are highly correlated with each other. However, SI is not just defined by income, occupation and education. Therefore, there are still questions on the comprehensiveness of SSS as a measuring tool for citizens' perception of their SI level.

### ***6.2.2. Co-Production Theories Revisited***

The extent to which citizens are willing to co-produce is the main focus of this research. As mentioned, citizens' motives to engage in co-production depend on the extent to which they are satisfied with how the government regulates their public services (Loeffler & Bovaird, 2016). If citizens do not agree with the government, they are more likely to get involved. Citizens with low SSS believe they are at a lower place in the social hierarchy, which makes them more likely to be dissatisfied with the government. In this research, the community is specified as Dordrecht. This then functions as the in-group. SSS creates a hierarchy in this in-group since there is a prototype within the community. In the case of SSS, the average SSS score can be considered as the prototype. The overall average SSS score in this research is 6.63. People that are far below or above this score are perceived to be deviants (Hogg, 2001). Deviants try to conform to the prototype to increase their self-esteem. Self-esteem depends on how much value an individual is perceived to bring to the in-group (Leary, Jongman-Sereno & Diebels, 2014). However, people with high SSS are perceived to bring more value to the in-group than people with low SSS. As explained through the relative deprivation theory, people with high SSS are generally perceived to have more knowledge and resources (Schneider, 2019). This causes people with low SSS to be treated more as deviants than people with high SSS. Because of this unequal treatment by members of the in-group, or residents of Dordrecht, people with low SSS are more likely to be dissatisfied with the current state of affairs. In theory, this would mean that these citizens are more likely to co-produce. However, according to this research, people with higher SSS are more likely to co-produce. Therefore, it can be argued that satisfaction with government practices is not a sufficient explanatory factor when it comes to willingness to co-produce.

In the existing literature, willingness to co-produce depends on the presence of motivators, as well as a sense of community. First, let us look at the role of motivators. As discussed before, extrinsic motivators are less effective than intrinsic motivators. This research confirms this. This research confirms that sanctioning and material rewards are not very effective motivators. Intrinsic motivators, such as self-esteem, normative and solidary motivators are more effective. In this sense, this research confirms the existing theory on the role of motivators in relation to co-production. Yet, this research shows that in the context of someone's SSS, the presence of motivators does not influence their willingness to co-produce. The existing theories on co-production motivators do not look at specific contexts. They are treated independently of any citizen characteristics. However, as this research shows, the influence of co-production motivators is circumstantial to the context. Thus, these results contribute to a clearer understanding of the influence of co-production motivators on willingness to co-produce.

Moreover, this research demonstrates that it is difficult to predetermine which type of motivator will work for which citizen. This is in line with the theory that there needs to be the right mixture of motivators for motivators to be effective (Alford, 2014; Pestoff, 2006). There may be no correlation between someone's SSS and the presence of different motivators because the motivators were presented separately. People are presumably influenced by a combination of different types of motivators. So, in academic research, co-production motivators should be treated not as separate and mutually exclusive, but rather as interdependent and intertwined.

Second, an individual's sense of community is argued to contribute to someone's willingness to co-produce. In the literature on citizen participation, it is argued that citizens are more willing to participate in society when they feel connected to a community (Lowndes, Pratchett & Stoker, 2006). This research expands this argument to co-production. Citizens are more willing to co-produce when they have a sense of community. Even though there is a sense of belonging to a community, citizens still have the agency to decide against participation (Lowndes, Pratchett & Stoker, 2006). This is also true, with someone's sense of community only being a third of the defining factor of their willingness to co-produce. Citizen participation, as discussed in the literature, takes many shapes and forms. Co-production can be considered one of these forms of citizen participation. So, this research proves that an individual's sense

of community is important in the more defined context of co-production, which indirectly confirms the importance of it in the broader context of citizen participation.

### **6.3. Practical Implications**

Next to theoretical implications, this research also has some practical implications. These practical implications concern the future of governance within the municipality of Dordrecht.

Co-production should be a priority to governmental organisations. Co-production has much potential when it comes to the creation and development of public services. By engaging in co-production, the government and citizens can utilise each other's resources and knowledge to achieve the most desirable results for both parties (Bovaird & Loeffler, 2012). The collaboration makes it possible to achieve these results with great efficiency. Moreover, if citizens are included in the process of developing public services, public value will likely increase (Bovaird & Loeffler, 2012). Creating high public value in society is important for the government since it leads to more satisfied citizens. Co-production is a particularly interesting endeavour for the municipality of Dordrecht. As established, Dordrecht is ambitious to pursue high levels of citizen participation. Dordrecht already has some experience with citizen participation, but it needs to go to the next level by making sufficient use of co-production. By doing so, Dordrecht could become the forerunner in the Netherlands, in terms of successful citizen participation.

#### **6.3.1. General Recommendations**

Some general recommendations follow from the findings of this research. Although these recommendations only pertain to Dordrecht in this thesis, they can be used as insight into the relevant topics in different contexts as well. First, this thesis makes clear that citizen characteristics, such as SSS, are very important for co-production. In both theory and practice, there is a focus on how to motivate citizens to engage in co-production. This research shows that citizen characteristics, such as SSS, are also important to an individual's willingness to co-produce. Co-production activities, as well as other regulations on citizen participation, should therefore be tailored to the target audience. It is not enough to find the right motivators for citizens to cooperate. Citizen characteristics should be taken into account when creating a co-

production project. This can be done by looking at the background of citizens that live in the area in which the co-production activities take place. By knowing relevant citizens, co-production is more likely to be a success.

Second, the results show that people with high SSS also have a higher sense of community, which makes them more willing to co-produce. So, an individual's sense of community is also important for the effectiveness of co-production. A sense of community needs to be built over time. Governmental organisations, like the municipality of Dordrecht, should actively try to increase every citizen's sense of community. Acceptance by and trust of fellow residents are two highly determining factors of someone's sense of community. By hosting free and inclusive activities, the municipality gives residents the chance to connect with other citizens. By getting in touch with different types of citizens, people are more likely to feel accepted by fellow residents and to trust each other. The events should particularly speak to the citizens with a lower SSS. When these citizens feel a higher sense of belonging in their community, they are also more likely to co-produce. This makes the co-production process much more inclusive.

### ***6.3.2. Recommendations on Social Inequality in Dordrecht***

Next to general recommendations, there are also some recommendations specific to the topic of SI within the municipality of Dordrecht. As became evident in the chapter on this thesis' empirical context, there is very limited data on SI within Dordrecht. However, SI is determining for the success of citizen participation. Often, only people with a high income and high education cooperate with the government to create public value. This research confirms that citizens who at least perceive themselves as having a high income and high education are more willing to co-produce. This is problematic since it only reinforces SI. To avoid this, more research is needed to find out the presence of SI in Dordrecht. With more knowledge on the situation in the municipality, it is easier to adjust co-production projects in a way that will fit the population best. On top of this, the municipality could also gather data on citizens' subjective sense of their SI levels. Citizens act on behalf of the perception they have of themselves, rather than the factual information that corresponds with them. Therefore, it is insightful to have data on how citizens perceive their SI level.

### ***6.3.3. Recommendations on Co-Production in Dordrecht***

Finally, some recommendations relate to the regulations of co-production in the municipality of Dordrecht. As explained in the empirical context, there have been multiple instances in which Dordrecht has addressed co-production. However, much can be improved in these regulations.

First, when the municipality looks into the practice of co-production, it is only addressed from a government perspective. Citizens are largely excluded from the debate on how to structure co-production. This is interesting since the objective of co-production concerns equal cooperation between the government and the citizens. Citizens must be included in the process of shaping co-production. Citizens should be treated as co-designers. Co-production will most likely be more successful when citizens are included from the very beginning. This appeals to residents' sense of community. Although the majority of the respondents answered positively towards the statements concerning their sense of community, the average positive attitudes merely make up 55,6%. There is still a lot of improvement to be made. Part of one's sense of community is the feeling that they bring more value to society. As of now, only 51,9% of the residents of Dordrecht feel like they bring value to the municipality. By including citizens in the co-production process, residents feel more useful in society, which substantially increases their sense of community. To do this, the municipality needs to gain the interest of citizens early on in the process of establishing co-production. This also leads to a higher interest to engage in co-production. As mentioned, co-production in Dordrecht is mainly limited to people who speak the jargon that is involved. By including citizens from the beginning, this will not be a problem anymore.

Second, Dordrecht has many cases of successful citizen participation. However, almost all of these cases do not concern co-production, but a lower level of citizen participation such as tokenism. Moreover, as the findings show, 57,9% of Dordrecht residents feel positive about co-production. This shows that residents are generally quite willing to co-produce. This proves that the municipality has the potential to make co-production a success. The municipality has the necessary experience with citizen participation, as well as the willingness of its residents. If the municipality wants to advance its citizen participation ventures, co-production is a necessary next step. To do this, co-production needs to be a priority for the municipality. Co-

production requires active, long-lasting effort. This should then also be reflected in the municipality's agenda.

Third, a report of the municipality has identified the characteristics of the citizens that are involved in projects that require citizen participation. Many citizens were middle-aged, well-educated and a long-time resident of Dordrecht. With this research in mind, this profile corresponds to a relatively high SSS. This research has therefore confirmed this argument. Citizens with high SSS are more likely to co-produce. As mentioned before, co-production should not be exclusive to people with certain characteristics such as a high SSS. Because the municipality already has the information on participants, something must be done with this knowledge. Thus, the municipality is aware that their citizen participation projects are not very inclusive and should take action to make it more inclusive. Co-production projects should be actively promoted among all different types of citizens. Since there is no significant relation between motivators and citizens' willingness to produce, the municipality should not exclusively focus on motivating, but also on bringing awareness of the option of co-production. This can, for example, be done through a neighbourhood specific media campaign.

Fourth, in the current regulation on citizen participation, the municipality of Dordrecht has the power to decide which level of citizen participation is appropriate. Co-production is described as the highest level of citizen participation. So, the municipality gets to decide which projects will be co-produced. Yet, there needs to be an easy way for citizens to be able to approach the municipality with a desire for co-production. Almost seven out of ten Dordrecht residents want to contribute to the improvement or development of public services. This shows a high desire for co-production among residents. The municipality needs to share the power of co-production with the citizens and include this in their written regulation to share. Moreover, this option should be brought to the attention of citizens. To improve citizen participation to a co-production level, citizens must be aware of the options they have.

All these practical recommendations are written to make co-production a successful endeavour for the municipality of Dordrecht, while also decreasing SI within co-production processes and projects. By making changes like these, SI will eventually decrease in society.



## 7. CONCLUSION

In contemporary societies, there is still much SI. Inequality must be reduced because dissatisfaction among citizens can cause revolts against the current governance system. A solution to this is to include citizens more in governance-processes. This can be realised through co-production. Yet, there is little research and literature available on co-production. Therefore, this thesis has answered the following research question:

What is the influence of citizens' perceptions of their social inequality level on citizens' willingness to co-produce in the municipality of Dordrecht?

As this thesis demonstrates, citizens with high SSS are more willing to co-produce than citizens with low SSS. Citizens' sense of community assists this relationship significantly. Over 30% of someone's willingness to co-produce stems from their sense of belonging. Although co-production motivators have a significant, but weak, relationship with someone's SSS, it does not contribute significantly to their willingness to co-produce.

These results have some theoretical implications. The results challenge the existing idea that citizens are more willing to co-produce when they are not satisfied with government practices. Moreover, this thesis demonstrates that the influence of co-production motivators is circumstantial to the context in which they are researched. Furthermore, this thesis has confirmed the idea that citizens' sense of community increases their willingness to participate in society. The results also have several practical implications. Co-production projects must be tailored to the right audience. Moreover, the municipality should try to make each citizen feel like they belong in Dordrecht to increase their sense of community. In terms of SI, the municipality should gather more data on SI among its residents. In terms of co-production, citizens should be treated as co-designers in co-production processes. The municipality of Dordrecht should also make co-production a priority on their agenda. Furthermore, the municipality should guarantee the inclusivity of co-production by ensuring the participation of citizens with different characteristics. Information about the possibilities of co-production must be easily available to all residents. Citizens should also have the possibility to opt for co-production, without ultimate decision-making being with the government. All these

recommendations ensure successful co-production that is inclusive for all residents of Dordrecht.

## **7.1. Limitations and Future Research**

To conclude this thesis, limitations and suggestions for future research are discussed.

### ***7.1.1. Limitations of This Thesis***

Some limitations pertain to the research within this thesis, which future research can reduce. First, the analysis of the different variables of this research is limited. The scope of this thesis allowed for a brief analysis of the variables, which helped to identify the relevant aspects of each variable. For example, this research measured citizens' perception of their SI level through SSS. However, SSS only looks at income, occupation and education. In reality, SI has many more dimensions which have yet to be discovered in its relationship with willingness to co-produce. Therefore, future research can look at additional characteristics that could influence someone's perception of their place in the social hierarchy. This can be done by, for example, asking the respondents for socio-demographic information. It is interesting to see if these elements (e.g. age, gender, location) influence someone's perception of their SI level and their willingness to co-produce. This is also the case for the variable *Sense of Community*, of which the full complexity is not explored.

Second, this research was only conducted among residents of Dordrecht. This leads to recommendations only on a local level. Dordrecht's SI levels are below the national average, which reduces the confidence of generalising the results. To make recommendations on a national level, similar research should be conducted in more cities in the Netherlands.

Third, by treating each motivator separately, it is difficult to argue that motivators are definitively not relevant in this context. In future research, more attention can be paid to which mixtures of motivators work in different situations. This makes it easier to implement co-production motivators more comprehensively in future research.

### *7.1.2. Limitations of the Existing Literature*

There are some suggestions for future research that follow from the limitations in the existing literature. First, there is little literature or research on citizens' perception of their SI level. Most literature merely looks at the factual information of citizens' SI indicators. However, citizens act according to the perceptions that they have. They do not act according to the objective information others have of them. Therefore, the literature of public administration can pay more attention to the subjective feelings of citizens, next to the objective factual information of citizens. This allows for a better understanding of citizens' motives, which can be incorporated in regulations or legislation.

Second, co-production is often researched and analysed in isolation. Co-production is explored in a theoretical sense which argues why citizens are able and willing to co-produce. However, other factors are often overlooked. Although some literature mentions the involvement of citizen characteristics, hardly any literature looks in-depth into the implications of these citizen characteristics on co-production. As this research shows, someone's willingness to co-produce can differ when focusing on different citizen characteristics. Future research should look into the influence citizen characteristics can have on co-production. This is necessary to gain a better understanding of co-production in general.

Finally, this research has demonstrated the importance of someone's sense of community on their willingness to co-produce. Yet, in the literature on co-production, there is no mention of the role of citizens' sense of community. This is questionable since it does not allow for a comprehensive understanding of citizens' willingness to co-produce. Therefore, future research on co-production should not neglect the role of citizens' sense of community. By having a better understanding of the role of sense of community, it becomes easier to tailor co-production projects to the community, which ensures a higher chance of success when it comes to co-production as a governance tool.

This thesis demonstrates the importance of understanding co-production on a deeper level than already explored. Citizen characteristics have a bigger influence on successful and inclusive co-production than often assumed. Successful co-production has the potential of decreasing SI in society. Therefore, more research on this relationship is necessary, both theoretically and practically.

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## APPENDIX 1: SURVEY

The actual survey is distributed in Dutch and includes a small introduction to set the context for this research.

### Part 1: Perceptions on Your Place in the Social Hierarchy

Think of this ladder as representing where people stand in Dordrecht. At the top of the ladder (10) are people who are the best off, those who have the most money, most education, and best jobs. At the bottom (1) are the people who are the worst off, those who have the least money, least education, worst jobs, or no job.



1. When thinking about your wage, please indicate where you think you stand on the ladder relative to other people in Dordrecht.

*1      2      3      4      5      6      7      8      9      10*

2. When thinking about the prestige of your current occupation, please indicate where you think you stand on the ladder relative to other people in Dordrecht.

*1      2      3      4      5      6      7      8      9      10*

3. When thinking about your highest obtained education, please indicate where you think you stand on the ladder relative to other people in Dordrecht.

*1      2      3      4      5      6      7      8      9      10*

## Part 2: Connection to Dordrecht

4. I feel accepted by fellow residents of Dordrecht.

*Strongly Disagree*   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

5. I feel I bring value within the municipality of Dordrecht.

*Strongly Disagree*   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

6. I identify myself with fellow residents of Dordrecht.

*Strongly Disagree*   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

7. I trust fellow residents of Dordrecht.

*Strongly Disagree*   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

## Part 3: Willingness to Co-Produce

8. Assuming that I am capable of co-producing, I want to cooperate with public service agents.

*Strongly Disagree*   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

9. Assuming that I am capable of co-producing, I want to contribute to the creation of public services.

*Strongly Disagree*   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

10. Assuming that I am capable of co-producing, I want to be actively engaged in the co-production process.

*Strongly Disagree*   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

## Part 4: Presence of Motivators

11. I would like to collaborate with the municipality of Dordrecht because there is a financial benefit.

*Strongly Disagree*   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

12. I would like to collaborate with the government because I get access to additional services not accessible to me before.

*Strongly Disagree*    *Disagree*    *Neutral*    *Agree*    *Strongly Agree*

13. I would like to collaborate with the government to avoid sanctions.

*Strongly Disagree*    *Disagree*    *Neutral*    *Agree*    *Strongly Agree*

14. I would like to collaborate with the government because it makes me feel needed

*Strongly Disagree*    *Disagree*    *Neutral*    *Agree*    *Strongly Agree*

15. I would like to collaborate with the government because it gives me a purpose in society.

*Strongly Disagree*    *Disagree*    *Neutral*    *Agree*    *Strongly Agree*

16. I would like to collaborate with the government because I believe it is the right thing to do.

*Strongly Disagree*    *Disagree*    *Neutral*    *Agree*    *Strongly Agree*

17. I would like to collaborate with the government because it increases citizen participation.

*Strongly Disagree*    *Disagree*    *Neutral*    *Agree*    *Strongly Agree*

18. I would like to collaborate with the government because it increases democracy.

*Strongly Disagree*    *Disagree*    *Neutral*    *Agree*    *Strongly Agree*

19. I would like to collaborate with the government because it makes me feel connected to the municipality of Dordrecht.

*Strongly Disagree*    *Disagree*    *Neutral*    *Agree*    *Strongly Agree*

20. I would like to collaborate with the government because it makes me feel connected to fellow residents of Dordrecht.

*Strongly Disagree*    *Disagree*    *Neutral*    *Agree*    *Strongly Agree*

## APPENDIX 2: ORDINAL LOGISTIC REGRESSION

### PLUM – Ordinal Regression

Model Fitting Information				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	471.693			
Final	449.911	21.782	1	.000

Test of Parallel Lines				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	449.911			
General	444.212	5.699	11	.893

## Generalized Linear Models (GENLIN)

Parameters Estimates											
				95% Wald Confidence Interval		Hypothesis Test			95% Wald Confidence Interval for Exp(B)		
Parameter		B	Std. Error	Lower	Upper	Wald Chi-Square	df	Sig.	Exp(B)	Lower	Upper
Threshold	[WCP_M=1.00]	-3.759	1.0825	-5.880	-1.637	12.059	1	.001	.023	.003	.195
	[WCP_M=1.33]	-2.655	.7222	-.4070	-1.239	13.512	1	.000	.070	.017	.290
	[WCP_M=1.67]	-2.138	.6261	-3.365	-.911	11.662	1	.001	.118	.035	.402
	[WCP_M=2.00]	-.338	.4880	-1.294	.619	.480	1	.489	.713	.274	1.856
	[WCP_M=2.33]	-.028	.4815	-.972	.915	.003	1	.953	.972	.378	2.498
	[WCP_M=2.67]	.362	.4771	-.573	1.297	.575	1	.448	1.436	.564	3.658
	[WCP_M=3.00]	1.337	.4787	.399	2.275	7.800	1	.005	3.807	1.490	9.728
	[WCP_M=3.33]	1.925	.4840	.977	2.874	15.823	1	.000	6.858	2.656	17.709
	[WCP_M=3.67]	2.660	.4928	1.694	3.626	29.141	1	.000	14.299	5.443	37.565
	[WCP_M=4.00]	4.206	.5179	3.191	5.221	65.935	1	.000	67.066	24.302	185.086
	[WCP_M=4.33]	4.899	.5377	3.845	5.953	83.012	1	.000	134.170	46.769	384.905
	[WCP_M=4.67]	5.518	.5676	4.405	6.630	94.499	1	.000	249.051	81.874	757.583
SSS_M		.335	.0717	.195	.476	21.861	1	.000	1.398	1.215	1.609

## APPENDIX 3: MEDIATING ANALYSIS (ANDREW F. HAYES: PROCESS)

Model : 4						
Y : WCP_M						
X : SSS_M						
M : SENSE_M						
Sample Size: 360						
<b>Outcome Variable : SENSE_M</b>						
Model Summary						
R	R-sq	MSE	F	df1	df2	p
.1840	.0339	.2707	12.5445	1.0000	358.0000	.0004
Model						
	Coeff	se	t	p	LLCI	ULCI
Constant	3.0603	.1394	21.9525	.0000	2.7862	3.3345
SSS_M	.0732	.0207	3.5418	.0004	.0325	.1138
<b>Outcome Variable : WCP_M</b>						
Model Summary						
R	R-sq	MSE	F	df1	df2	p
.3410	.1163	.4927	23.4917	2.0000	357.0000	.0000
Model						
	Coeff	se	t	p	LLCI	ULCI
Constant	1.5548	.2881	5.3965	.0000	.9882	2.1214
SSS_M	.0899	.0284	3.1694	.0017	.0341	.1457
SENSE_M	.3844	.0713	5.3907	.0000	.2442	.5247
<b>TOTAL EFFECT MODEL</b>						
<b>Outcome Variable : WCP_M</b>						
Model Summary						
R	R-sq	MSE	F	df1	df2	p
.2106	.0444	.5314	16.6206	1.0000	358.0000	.0001
Model						
	Coeff	se	t	p	LLCI	ULCI
Constant	2.7313	.1953	13.9826	.0000	2.3471	3.1154
SSS_M	.1180	.0289	4.0768	.0001	.0611	.1749
<b>TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y</b>						
Total Effect of X on Y						
Effect	se	t	p	LLCI	ULCI	c_ps
.1180	.0289	4.0768	.0001	.0611	.1749	.1585
Direct Effect of X on Y						
Effect	se	t	p	LLCI	ULCI	c'_ps
.0899	.0284	3.1694	.0017	.0341	.1457	.1207
Indirect Effect(s) of X on Y						
	Effect	BootSE	BootLLCI	BootULCI		
SENSE_M	.0281	.0101	.0103	.0493		
Partially Standardized Indirect Effect(s) of X on Y						
	Effect	BootSE	BootLLCI	BootULCI		
SENSE_M	.0378	.0131	.0143	.0651		
Completely Standardized Indirect Effect(s) of X on Y						
	Effect	BootSE	BootLLCI	BootULCI		
SENSE_M	.0502	.0178	.0186	.0875		



## APPENDIX 4: MODERATION ANALYSIS (ANDREW F. HAYES: PROCESS)

Model : 1						
Y : WCP_M						
X : SENSE_M						
W : PM_M						
Sample Size : 360						
<b>Outcome Variable : WCP_M</b>						
Model Summary						
R	R-sq	MSE	F	df1	df2	p
.6101	.3723	.3510	70.3741	3.0000	356.0000	.0000
Model						
	Coeff	se	t	p	LLCI	ULCI
Constant	1.7115	1.2825	1.3345	.1829	-.8107	4.2336
SENSE_M	-.2308	.3699	-.6240	.5330	-.9583	.4967
PM_M	.3477	.3895	.8927	.3726	-.4183	1.1138
Int_1	.1251	.1107	1.1304	.2591	-.0925	.3427
Product Terms Key:						
Int_1 : SENSE_M x PM_M						