Contracting out for performance of democratic-constitutional values and procedural tasks in federal agencies: evidence from the equal employment opportunity discrimination complaint process

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CONTRACTING OUT FOR PERFORMANCE OF DEMOCRATIC-CONSTITUTIONAL
VALUES AND PROCEDURAL TASKS IN FEDERAL AGENCIES: EVIDENCE FROM THE
EQUAL EMPLOYMENT OPPORTUNITY DISCRIMINATION COMPLAINT PROCESS

by

Iseul Choi

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ABSTRACT

Contracting out has been considered one of the main performance management strategies for reducing costs and bringing more expertise into government agencies. Previous studies have examined the effects of contracting use on agency performance, but have focused more on measurable, traditional performance in the public sector. There is a lack of research analyzing the influence of contracting use on non-traditional performance outcomes, which are usually non-mission based and difficult to measure, such as fairness, nondiscrimination, due process, and individual rights. Scholars have pointed out that performance measurement processes pay less attention to these non-mission-based values and tasks.

My dissertation responds to this problem by integrating contracting and performance management theories in order to assess contracting performance of complex tasks pursuing equity and fairness, which I name democratic-constitutional and procedural (DCP) tasks. The aim of this dissertation is to examine whether or not and how contracting use has an impact on performance of DCP tasks, by analyzing contracting use in the equal employment opportunity (EEO) discrimination complaint procedure. My primary analysis uses four years of agency-level panel data from the 2013-16 Federal EEO Statistical Report of Discrimination Complaints, combined with data from the Federal Procurement Data System (FPDS), General Services Administration (GSA) price lists and websites, and the Federal Employee Viewpoint Survey (FEVS). As a supplement to this, I am also conducting a limited number of semi-structured interviews with federal officials.

The results offer empirical evidence that there is a negative relationship between contracting use and agency performance of DCP tasks when they are measured with respect to timeliness. In terms of moderating effects, the findings show that the link between contracting
use and performance of DCP tasks is negatively moderated by task complexity, while it is positively moderated by a case-based incentive structure. The moderating effect of shared norms and values is partially supported; using small disadvantaged businesses has a positive moderating effect on the relationship between contracting and DCP task performance. However, the study does not offer empirical evidence that staff expertise has a significant moderating effect on performance. Background interviews with federal EEO officials provide practical insights to the arguments and empirical findings. This dissertation deepens our understanding of contractor performance in non-traditional government services in terms of achieving DCP values.
DEDICATION

This dissertation is dedicated to my mother, Soon-Ok Jung, who had worked as a public official in South Korea for 27 years.
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With permission from the publisher, the dissertation partly includes the published article either in the original wording or revised for the dissertation.
Chapter I. Introduction

1. Introduction

To enhance government performance, several performance management strategies have been implemented in results-oriented public management systems. Under the results-oriented management system in the United States, there has been a widespread use of contracting out as a form of privatization. Governments utilize contracting out strategies by making a contract with a private (for-profit or non-profit) organization in order to “deliver a service or perform a function for the government” (Fernandez & Smith, 2005, p. 357). The Trump Administration has also committed to implementing privatization strategies in the federal workforce to increase efficiency and cost effectiveness in the US government (Congressional Research Service, 2018). As the demands of services have become more extensive and complicated, it has thus become more likely that governments attempt to use private sector expertise, which has lower costs and fewer regulations. They aim to meet their policy goals by contracting out.

Public administration scholarship has explored and explained the antecedents and consequences of contracting out, and the conditions under which it can be effective in public organizations, based on classic economic theories and management theories (Bertelli & Smith, 2010; Brown & Potoski, 2003a; Brown, Potoski, & Van Slyke, 2010; Elkomy, Cookson, & Jones, 2019; Fernandez, 2004; O’Toole & Meier, 2004; Van Slyke, 2003). Most contracting studies, following theoretical backgrounds from economics such as public choice theory, principal-agent theory (agency theory), and incentive theory, view the contractual relationship between a government and a private agent influenced by the assumptions of information asymmetry and self-interested agents. Meanwhile, some scholars have argued that the
contracting out mechanism may be too complex to be explained using these strict assumptions. With this in mind, recent studies consider and add social and behavioral factors into contracting models, relaxing the assumptions from classic theories, in order to understand the contracting-performance relationship (Davis, Girth, & Stazyk, 2016; Girth, 2017).

Although previous studies have explored performance of contracting out in public administration literature, we know relatively little about contracting performance in complex tasks pursuing equity and fairness, which I name democratic-constitutional and procedural (DCP) tasks. DCP values can be broadly defined as the values that an agency pursues according to legislation and the Constitution, including equity, transparency, individual rights, and due process, above and beyond specific program requirements (Baehler, Liu, & Rosenbloom, 2014; Piotrowski, Rosenbloom, Kang, & Ingrams, 2018). This study defines DCP tasks as “non-mission-based tasks” that ultimately pursue DCP values based on the Constitution or legislation. Responding to the Freedom of Information Act (FOIA) requests and dealing with Equal Employment Opportunity (EEO) discrimination complaints are the main examples of the DCP tasks. Regardless of agencies’ mission, these DCP tasks are applied to agencies based on the law to pursue transparency and fairness, respectively.

Both in theory and in practice, governments need to exercise more caution, and it is sometimes recommended that they do not use contractors for DCP tasks, because performance of these tasks is often non-mission-based and cannot be easily measured. Contracting theories mostly assume that contracting outcomes are easy to quantify and observe, so it is still arguable that contracting use will be beneficial for difficult-to-measure performance outcomes. Moreover, practitioners may claim that DCP tasks are deeply related to “inherent government functions” (Piotrowski, 2007). Bringing contractors in from outside the government to deal with this type of
DCP task is not appropriate, because private sector contractors may not successfully pursue public DCP values such as transparency and equity. Therefore, it is important for public administration scholarship to test this by investigating the impact of contracting out on DCP tasks that are difficult to measure and track in the context of results-oriented public management.

It is reasonable to raise the following questions: What if a government implements contracting out to accomplish non-traditional performance, such as DCP tasks? Would contracting out be still effective at enhancing performance with such outcomes? This dissertation starts with these questions, and assesses the performance of contracting out in the EEO discrimination complaint procedure. In federal agencies, EEO contractors are hired to facilitate different portions of the discrimination complaint procedure. The overall goal of the discrimination complaint review process is to achieve a democratic-constitutional value: encourage diversity and reduce discrimination based on the law. Equity and fairness are important values in the workplace. However, these values have received little attention in mission-based performance management, because it is hard to measure the outcomes. Moreover, it is hard for a public agency to prioritize democratic values over other mission goals, although, ideally, EEO goals are integrated into agency missions (Piotrowski & Rosenbloom, 2002; Radin, 2000; A. K. Wood & Lewis, 2017). All in all, it is useful to assess how contracting out affects federal agencies’ performance in DCP tasks by looking at the performance of contractors and agency employees in the EEO discrimination complaint process.

2. Research Questions

The aim of this dissertation is to examine the impact of contracting out on agency performance of DCP tasks. By assessing agency performance in discrimination complaint
processes, the study analyzes whether or not and under which circumstances contracting out affects non-traditional outcomes. In addition to this, it is worth investigating if, and why, there is a connection between contracting out and agency discrimination complaint rate. To sum up, the dissertation will answer the following research questions:

1) Does contracting achieve better or worse performance in DCP tasks compared to in-house delivery?

2) Which managerial, contextual factors, and contract characteristics affect contracting performance in DCP tasks?

3) Do agencies using EEO contractors experience a higher or lower discrimination complaint rate?

3. Significance of the Research

The question of whether or not and under which circumstances contracting out is effective for non-traditional government services demands more attention, as most contracting research has focused on traditional public products and services (e.g., water services and refuse collection). This dissertation expands the literature on contracting out in the public sector by analyzing the impact of contracting out on non-traditional DCP tasks that are non-mission-based and difficult to measure. Economists supporting public choice principal-agent theories assume that government performance outcomes are measurable and observable, like those in the private sector (Bel, Fageda, & Warner, 2010; Sclar, 2000). Previous studies find that contracting is effective for reducing costs and improving workload outputs (Elkomy et al., 2019; Savas, 1977). In comparison, there is little empirical evidence of contracting being beneficial to non-traditional
outcomes that are not easily measurable and not mission-based. Thus, it is worthwhile to look into whether or not and under which circumstances the implementation of contracting out can also be effective for improving performance of DCP tasks.

The dissertation makes theoretical contributions in several ways. First, this research suggests a proxy metric, timeliness, in order to evaluate performance of DCP tasks, drawing on performance management and measurement literature. It is necessary to review performance measurement issues and suggest how to gauge performance of DCP tasks, as these outcomes are non-mission-based and difficult to assess. Under several performance management reforms, many public agencies have put a great deal of effort into measuring and documenting performance, focusing on strategic plans and mission-focused outcomes. However, there is a gap in performance management literature, as results-oriented management systems have mostly ignored performance of DCP values such as equity and fairness (Frederickson, 2016; Radin, 2006; Waldo, 1948). Scholars have also pointed out that focusing too much on performance measurement processes will mean that other important non-mission-based values and tasks are neglected (Rosenbloom, 2017). By suggesting a timeliness measure as a proxy, this dissertation sheds lights on performance measurement issues for DCP tasks that are mission-extrinsic and difficult to measure and observe.

Next, using this proxy metric of performance of DCP tasks combined with contracting out literature, the research tests whether or not contracting use can enhance performance of DCP tasks. In the previous literature, there are competing logics with regard to this link, suggesting either a positive or a negative relationship between contracting use and performance of DCP tasks. Moreover, even if contracting out complex services is not highly recommended in theory, government contracting for such services does take place. Consequently, it is worth testing these
competing logics and providing empirical evidence of the impact of contracting on performance of DCP tasks.

This research further examines which managerial, contextual factors and other contract characteristics can affect contracting performance of DCP tasks. Regardless of the direction of the association between contracting use and performance of these tasks, it is also crucial to understand how to manage contractor performance of the tasks. According to contracting theories, from public choice theory to stewardship theory, 1) staff expertise, 2) task complexity, 3) incentive structure, and 4) shared norms and values are the factors that can moderate the link between contracting and performance of DCP tasks. By addressing these points, this study helps to widen our understanding of the use of contracting out strategies in public agencies.

In addition to the main discussion of the link between contracting use and agency performance of DCP tasks, this dissertation helps to explain if and how contracting out in DCP tasks influences discrimination complaints. In public administration literature, theoretical backgrounds and previous evidence on this link are not yet sufficiently present. However, drawing on literature of conflict management and sociology, it is beneficial to empirically test and analyze whether or not contracting out has a relationship with discrimination complaints, both quantitatively and qualitatively. In particular, this study provides practical insights from interviews with government EEO professionals, in order to help us understand whether contracting use may influence agency discrimination complaints.

The dissertation sheds some light on how the discrimination complaint process works in practice. In practice, failure to complete discrimination complaint cases in a timely manner may cause serious issues of “justice delayed is justice denied.” Thus, the EEOC prioritizes reducing backlogs and finishing the cases in a timely manner, such that complainants may have a better
work environment with regard to non-discrimination and fairness values. By using insights from performance measurement and contracting theories, this dissertation gives the practitioners theoretical backgrounds, and a sense of why measuring of timeliness is valuable when tracking agency performance in the complaint process. In addition to this, the study draws practitioners’ attention to contracting performance when the practitioners decide to contract out mission-extrinsic DCP tasks whose outcomes are difficult to measure and observe. In testing the moderating effects of managerial and contextual factors, and other contract characteristics, this study offers evidence of which management strategies can hold contractors accountable for performance of DCP tasks. As contracting out cannot be avoided in government work, the dissertation points out that public agencies need to give more attention to management capacity and contract vendor characteristics for contracting performance of DCP tasks that are mission-extrinsic and difficult to observe.

4. Organization of the Dissertation

This dissertation is organized as follows. In Chapter II, the study begins by introducing the background and context, including the definitions and importance of DCP values and tasks, as well as the context of the EEO discrimination complaint process. Chapter III then reviews the literature on contracting out and performance of DCP tasks. In this chapter, the literature review of the dissertation is divided into four sections: first, I review how contracting has been examined in the context of performance management, referring to contracting theories as well as previous studies on contracting performance in general. Second, the literature on performance measurements for DCP tasks is reviewed, particularly focusing on measurement issues and potential measures of the tasks. Third, synthesizing the two previous discussions on contracting
and performance measurement theories, I look at the previous evidence on contracting in performance of DCP tasks, and suggest the hypotheses. Fourth, I review the literature and hypothesize the link between contracting use and discrimination complaints. Based on the context of the EEO procedure and the theoretical frameworks, Chapter IV presents the data and methods, also including the measures for each variable and three model specifications for each research question. After outlining the data and methods of the study, Chapter V provides empirical findings from the quantitative and supplementary qualitative analysis testing and the proposed hypotheses. Using the results of the study, Chapter VI develops the discussion, suggesting the theoretical and practical implications of the results, in addition to a future research agenda with the limitations of the study as a concluding note.

5. Summary

In summary, this dissertation examines the mechanism of contracting out with regard to execution of non-traditional performance outcomes. This introduction has given an overview of the main purpose of the study, indicating three research questions 1) Does contracting achieve better or worse performance in DCP tasks compared to in-house delivery? 2) Which managerial, contextual factors and contract characteristics affect contracting performance in DCP tasks? and 3) Do agencies using EEO contractors experience a higher or lower discrimination complaint rate? This chapter provides details about significance of the study, explaining what will be addressed and why it is important to study these topics. As indicated in the organization of the dissertation, the next chapter will introduce the definitions and backgrounds of DCP values and tasks in public administration, and the context of the EEO discrimination complaint process.
Chapter II. Background and Context

1. Introduction

Before reviewing the current literature on contracting out and performance with regard to DCP tasks, this chapter provides a background and context for the study. First, it discusses why government performance is important, and DCP values and tasks. In particular, the chapter argues that DCP values and tasks can easily be underestimated or ignored in the performance management system, although we need to pay attention to these values in the public administration domain. After considering the definitions and characteristics of DCP values and tasks, I highlight their theoretical and philosophical importance.

I next explain the context of the EEO discrimination complaint process that is used for this study. As an example of a DCP task, examining this process is worthwhile to help assess the impact of contracting use on performance of DCP tasks and discrimination complaints as an agency performance outcome. After demonstrating the value of using this procedure in this study, the chapter presents detailed milestones in the discrimination complaint process in federal agencies, with specific timelines. Acknowledging that completing these milestones in a timely manner is a long-standing concern in practice, I also account for the roles of in-house agency EEO employees and EEO contractors.
2. Why Is Government Performance Important and What Are DCP Values and Tasks?

1) Managing Government Performance

Managing government performance has been perceived as essential “in an era of government by performance management” (Moynihan & Pandey, 2005, p. 421). In results-oriented public management, practitioners and scholars have examined the conditions around and functions of public agencies when accomplishing their performance goals and missions. Under this performance management regime, it is usually assumed that efficiency and effectiveness are the values with the highest priorities in governments, and that there is a proper “one-size-fits-all” strategy for pursuing government efficiency and effectiveness. However, the ongoing discussion on performance management has criticized this simplistic view of government performance management, instead suggesting a more realistic way of managing performance in the public sector, taking its dynamics into account (Moynihan, 2008; Radin, 2006). Compared with private sector organizations, public organizations operate in a more complex manner, which might be owing to the complexity and vagueness in government performance. Moynihan (2008) also points out the subjectivity inherent in the use of performance information for the public sector, acknowledging that managing government performance can be complicated.

The many discussions on performance management can be organized in two main ways. On the one hand, government agencies “internally” build up an effective performance management system to enhance performance. An effective management system may consider the use of performance information and organizational culture (Moynihan, 2008), setting out clear performance goals and measures (Chun & Rainey, 2005; U.S. Government Accountability Office, 2013), and managing human resources properly (Favero, Meier, & O’Toole, 2016;
Fernandez & Moldogaziev, 2013). Many scholars and practitioners have provided empirical evidence of the effect of the internal management approach on performance. According to Moynihan and Pandey (2005), environmental factors such as elected officials’ support and organizational factors such as a developmental organizational culture and goal clarity are positively related to organizational effectiveness. In Favero et al.’s (2016) study, the results show that internal management embracing goals, trust, participation and feedback is positively associated with performance. Managers may also need to identify performance measures based on their own managerial goals in order to achieve ultimate performance goals (Behn, 2003; Hatry, 2007).

On the other hand, to improve government performance, public agencies sometimes take “external” approaches in the form of privatization, collaboration or governance, which allow them to expand their resources with more flexibility. In particular, contracting out is one of the most common ways in which governments expand and use available resources and skills from other organizations (e.g., government agencies, nonprofit or for-profit organizations) at a lower cost. The approach using external resources plays a pivotal role in performance management, in that there might be some challenges and barriers that internal management cannot easily solve. Moreover, governments can take advantage of other bodies in terms of expertise and cost through privatization, collaboration or other types of governance network. This is not incompatible with the first internal management approach; rather, the two can be combined and be a supplement to each other when operating. For example, when a government agency contracts out some services, internal management still needs to be effective, so that the contracting can be successful. Thus, taking an external approach does not mean that internal
effort toward building an effective management system is negligible, but it is in need of a more effective performance management system in order to meet government performance goals.

When managing government performance, the public values that agencies pursue cannot be isolated from government performance, which drives value-laden performance management (Piotrowski & Rosenbloom, 2002; Piotrowski et al., 2018; Radin, 2006). Effectiveness and efficiency are the most frequently used values in results-oriented management, and these values are often well reflected in government organizations’ missions. Efficiency has been considered as a core value of New Public Management (NPM) reforms. However, there are also other crucial values such as equity, due process, transparency and fairness, to name a few, which make government performance more complicated. Frederickson (1990) also points out that social equity should be a core value of public administration, criticizing “the conventional wisdom that public administration was neutral and only marginally involved in policy making” (p. 229). These democratic-constitutional and procedural values are also called non-mission-based outcomes or mission-extrinsic values, not only because they have not been incorporated effectively into agency missions (see examples in Piotrowski & Rosenbloom, 2002), but also because they are often perceived as overarching values for each agency’s performance goals (Koppell, 2003). Thus, “in the era of government by performance management,” these core values can easily be underestimated or ignored in the pursuit of mission-based outcomes and performance. Most performance management practices have pursued efficiency and effectiveness at the expense of such mission-extrinsic values.

Accordingly, it would be worthwhile to expand our performance management discussion by integrating these values. The need for value-laden management has been emphasized: “[d]emocratic-constitutional government depends on public values such as representation, citizen
participation, transparency, and individual rights” (Piotrowski et al., 2018, p. 705). This does not imply that efficiency and effectiveness should be sacrificed to achieve democratic-constitutional values. Rather, it is important to achieve a balance between mission-based values and mission-extrinsic values in performance management. Even in contracting that is usually considered a way of achieving cost-effectiveness, it is suggested that “effective management requires going beyond passively receiving value signals from stakeholders and instead actively reaching out to identify broad stakeholder preferences and frame trade-offs among them regarding services” (Brown, Potoski, & Van Slyke, 2006, p. 324). Ultimately, performance management is not a neutral but a more value-laden process, pursuing both mission-based and non-mission-based values and outcomes.

2) DCP Values and Tasks in Public Administration

It is worth clarifying what DCP values and tasks are, and discussing why we should pay attention to them in the public administration domain. DCP values can be broadly defined as the values that an agency pursues according to legislation and the Constitution, such as equity, transparency, and due process, going above and beyond specific program requirements (see table II-1). For public employees, for example, the courts have provided protections for due process and equity, with the argument that public employees do not give up their constitutional rights when they agree to work for the government. For the sake of transparency and due process in federal rulemaking, as another example, the Administrative Procedures Act requires agencies to publicly post proposed regulations, and to allow for public comment before implementation; any changes to regulations must also be posted publicly and be open for public comment.
As noted earlier, these DCP values are often known as non-mission-based or mission-extrinsic values, and are not incorporated into the agency’s core mission, but more broadly imposed on public agencies (Baehler et al., 2014; Rosenbloom, 2017). In particular, mission-extrinsic values can be characterized as the values that

(a) do not support achieving the central purposes, core activities, and raison d’être of agencies and programs, (b) are unrelated to an agency’s specialized competencies and technologies, (c) promote preferences that are extraneous to organizational missions and may even impede them, (d) are imposed across all agencies in a one-size-fits-all fashion that is not strategically tailored to individual missions, and (e) are not necessarily supported by agency leaders and personnel. (Baehler et al., 2014, p. 202)

In line with this, this study defines DCP tasks as “non-mission-based tasks” that ultimately pursue DCP values that are based on the Constitution or legislation. In practice, Congress and the federal courts have provided a legislative and constitutional framework so that public administration seeks DCP values by means of the DCP tasks. Responding to FOIA requests is one example of a DCP task, as these tasks pursue transparency, the value an agency must pursue according to legislation. As another example, dealing with EEO discrimination complaints is one type of non-mission-based task, pursuing equity, fairness and non-discrimination (see table II-1).

Unlike mission-based values and tasks that are mostly integral to agencies’ core missions and performance targets, DCP values and tasks are not directly related to their core missions. DCP values are “often imposed across all agencies in one-size-fits-all fashion that is not strategically tailored to individual mission” (Rosenbloom, 2017, p. 43). For example,
transparency can be treated as one of the non-mission-based DCP values for most agencies, with the exception of the National Archives and Records Administration, in that transparency is embodied in the FOIA but is not necessarily reflected in agencies’ performance plans. In this case, compliance with FOIA requests can be considered as a DCP task that ultimately pursues transparency.

Table II-1. Definitions and Examples of DCP Values and Tasks (I. Choi, 2020)

<table>
<thead>
<tr>
<th>DCP Values</th>
<th>Definitions</th>
<th>Examples</th>
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<tbody>
<tr>
<td></td>
<td>• The values that an agency pursues according to legislation and the Constitution.</td>
<td>• Equity</td>
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<td></td>
<td>• Often known as non-mission-based or mission-extrinsic values (Baehler et al., 2014).</td>
<td>• Fairness</td>
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<td></td>
<td>• Due process</td>
<td>• Transparency</td>
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<td>• Non-discrimination</td>
<td>• Non-discrimination</td>
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<td>DCP Tasks</td>
<td>• Non-mission-based tasks that ultimately pursue DCP values</td>
<td>• Responding to FOIA requests</td>
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<td>• Dealing with EEO discrimination complaints</td>
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Philosophically and theoretically, why is it important to consider these DCP values and tasks in public administration? DCP values cannot be ignored in public administration, since public administration and political and social contexts cannot be viewed in isolation, and public administration is not neutral (Moynihan, 2008; Radin, 2006; Waldo, 1948). Waldo (1948) strongly argues that democratic values must coexist with administrative values such as efficiency and effectiveness, firmly believing that public administration does not differ from political theories and principles. In *The Administrative State* he suggests that efficiency is “a major objective of public administration, but that it must be ‘socially and humanly interpreted’” (Waldo, 1948, p. 197). Therefore, it is not surprising that “social equity should be the third pillar
for the theory and practice of public administration” (Frederickson, 1990, p. 235). This is also well articulated in another normative idea in Frederickson’s *New Public Administration*, which integrates social equity and political systems into public administration (Frederickson, 2016). More recently, there have been media reports about the actions of the Trump administration, raising concerns about the politicization of the civil service (Lu & Yourish, 2018; O’Harrow, 2018), another key DCP value. All in all, it is essential to maintain a balance between managerial values (i.e., efficiency and effectiveness) and DCP values in public administration, by embracing democratic values into performance management strategy (Radin, 2006; Stivers, 2008).

How, then, do these DCP values come into play alongside administrative values in practice? From a practical point of view, “U.S. public administration more self-consciously attended to democratic-constitutional values” (Rosenbloom & McCurdy, 2007, p. 8) through the separation of powers. With this separation, it is assumed that bureaucracy, which has task execution as its main function, has primary values such as cost-effectiveness rather than democratic values, constitutional rights and procedural due process (Rosenbloom, 1983, 2013). Thus, the separation of powers allows Congress and the courts to force “congressional supervision, transparency, representativeness, public participation, and the protection of individual constitutional rights into administrative practice” (Rosenbloom & McCurdy, 2007, p. 8). In doing so, administrative agencies are compelled to pursue DCP values such as these. For example, as illustrated in Piotrowski and Rosenbloom’s (2002) work, public agencies are not allowed to collect and disclose information that may violate individuals’ privacy. In addition, agencies should not promulgate new regulations without public participation or observation (Piotrowski & Rosenbloom, 2002). Further, under constitutional protections, procedural justice can be one of the main constitutional values that agencies consider in order to ensure that a
decision-making process is unbiased, and that they are treating individuals (Rubin & Weinberg, 2016).

3. Context of the EEO Discrimination Complaint Process: An Example of DCP Tasks

This dissertation particularly uses the context of the EEO discrimination complaint process as an example of DCP tasks, in order to assess the impact of contracting use on performance of DCP tasks. The EEO discrimination complaint procedure is an appropriate context for looking at contracting performance for DCP tasks, for two reasons. First, this complaint process can be considered as a series of DCP tasks, as the ultimate goal of the process is to promote DCP values—equity, fairness and non-discrimination—in the federal workforce. Second, both (in-house) agency EEO employees and EEO contractors play a part in the discrimination complaint process. Thus, it is relevant to examine contractors’ performance in DCP tasks compared to agency employees’ performance. To sum up, the EEO discrimination complaint process is a useful example of DCP tasks, which allows us to examine and compare EEO contractors’ performance with that of EEO agency employees’ with regard to the tasks in the discrimination complaint process.

This discrimination complaint process is legally based on Title VII of the Civil Rights Act of 1964 (Title VII). According to this law, federal employers are prohibited from “discriminat[ing] against someone on the basis of race, color, religion, national origin, or sex” (U.S. Equal Employment Opportunity Commission, 2017). There have also been congressional testimonies emphasizing the reduction of barriers to equal employee opportunities for minorities, and the establishment of a more equal work environment with no discrimination. From 1972
onwards, the EEOC has been in charge of overseeing the “enforcement of non-discrimination laws” and establishing procedures for “reporting and resolving harassment claims in the federal sector, which differ in some material ways from its private-sector procedures” (Lipnic, 2017, p. 4). In this process, complainants explain when and why they feel they have been treated inappropriately by the law. To deal with discrimination complaints, EEO staff need to counsel a complainant or/and investigate the discrimination case, to see if discrimination has actually occurred.

Figure II-1 depicts a simple snapshot of the federal EEO discrimination complaint procedure. There are several procedural milestones that must be met within a specific time frame, when a federal employee believes that he or she feels discriminated against with regard to non-discrimination laws (see more details in appendix A). First, once the federal employee believes that there is an incident of discrimination, they contact an agency EEO counselor in his or her agency “within 45 days from the date discrimination is alleged to have occurred” (Lipnic, 2017, p. 4). At this stage, the EEO counselor will advise the employee to choose either EEO counseling or an alternative dispute resolution (ADR) for mediation. Some discrimination disputes can be resolved during EEO counseling or the ADR stage. If the claim is not settled through this informal complaint process, the agency EEO office will issue a notice of the right to file a complaint, and the employee will file a formal discrimination complaint “within 15 days from the date notice from an EEO counselor about how to file a complaint is received” (Lipnic, 2017, p. 4).
In the formal complaint process, after the employee files a formal complaint, an agency will review the case and decide whether or not it can be settled. If the agency and the employee do not settle the complaint, the agency will continue the review process. At this stage, the agency will either dismiss the case for procedural reasons or conduct an investigation into the substantive complaint. From the date the discrimination complaint is formally filed, regulations require the agency to complete the investigation within 180 days, with a few exceptions. After completing the investigation procedure, the employee and the agency can settle the complaint, the employee can ask the agency to make a decision or they can request a hearing by an EEOC administrative judge. Once the employee asks the agency to issue a decision, the agency issues a final action with either a finding of discrimination, a partial finding of discrimination or a finding of no discrimination (Rubin & Alteri, 2017). If the final action is not satisfactory and the employee does not accept the decision, the employee can appeal to the federal court or the EEOC office.

Figure II-1. Overall Procedure of Federal EEO Discrimination Complaints
In practice, however, performance of this complaint process in terms of timeliness has been a long-standing concern. According to Linderman (2018), “a federal worker filing a complaint with the EEOC [in 2017] waited, on average, 543 days for resolution. But cases can drag on much longer, often forcing employees to choose between enduring discrimination or abandoning their careers.” The federal sector discrimination process sees much longer delays than it should. Compared to the fact the private sector discrimination process takes about 295 days, the federal discrimination process is more delayed, with a high number of backlogs. These backlogs may cause serious issues for federal employees’ rights and harm a non-discriminative work environment: “Justice Delayed is Justice Denied.” Thus, reducing the backlogs in the process and timely completing of tasks is crucial for promoting justice, fairness, and non-discrimination in the workforce. To improve performance in the discrimination process, contracting out has been used to help federal agencies achieve democratic-constitutional values.

In every stage of the informal and formal EEO complaint process, in-house EEO agency employees or/and EEO contractors facilitate review of discrimination cases by serving in one of three roles: counselor, investigator, or consolidated counselor/investigator. Within this procedure, EEO contractors play a part in the process by counseling or investigating the discrimination complaints. They can be involved in procedural activities to achieve democratic-constitutional values (i.e., non-discrimination and fairness), even though they do not make the final decision on behalf of the agency. Thus, it is worth mentioning that this research does not examine how an EEO discrimination complaint process would be applied to general contractors in the government as compared to federal employees. Instead, it focuses on whether agencies with more EEO contractors have an impact on performance of DCP tasks in the EEO discrimination complaint procedure.
Related to the EEO procedure, it is worthwhile to mention how discrimination complaints are allocated between in-house agency EEO employees and EEO contractors. From the semi-structured interview with EEO officials, some interviewees noted that there is “no specific tendency to allocate some types of case to in-house staff and other types to contractors.” In other words, how the cases are allocated is not specifically dependent on whether EEO staff are in-house or contractors. Rather, usually in large agencies, the cases are allocated “based on the staff’s knowledge and experience.” In small agencies with fewer resources it is more likely that complaint cases are “handled by all EEO staff,” with different in-house staff participating in different steps of the process.

Looking at the allocation of complicated cases, there are some mixed findings from the interviews. On the one hand, some agencies assign more complex cases to in-house EEO staff, if the complaint cases are related to medical clearance and foreign services. Also, simpler or easier cases can be assigned to contractors, as the outcomes can be reached more quickly, which can reduce contracting costs. On the other hand, some interviewees maintain that cases involved with conflicts of interest are usually complex and that these cases go to EEO contractors for impartial processing. This is consistent with previous arguments about the reasons of hiring contractors to deal with discrimination complaint cases. Overall, complex discrimination cases are assigned to both EEO contractors and in-house agency EEO employees.

4. Summary

This chapter provides the background and the context for the study, giving a substantial discussion of DCP values and tasks and the federal-level EEO discrimination complaint process. There are three main points in this chapter. First, DCP values can be broadly defined as the
values that an agency pursues according to legislation and the Constitution, and this study defines DCP tasks as “non-mission-based tasks” that ultimately pursue DCP values. Second, DCP values and tasks that are usually mission-extrinsic have received less attention in the public administration domain. However, it is essential to maintain a balance between managerial values (i.e., administrative efficiency and effectiveness) and DCP values, by bringing democratic-constitutional values into a performance management strategy (Radin, 2006; Stivers, 2008). Finally, the EEO discrimination complaint process can be considered as a primary example of DCP tasks legally based on Title VII, where practitioners are struggling with a high number of backlogs. As these backlogs cause serious “Justice Delayed is Justice Denied” issues, contracting out has been used in the discrimination complaint process to help federal agencies. In this process, in-house EEO agency employees and/or EEO contractors facilitate review of a discrimination case by serving in one of three roles: counselor, investigator, or consolidated counselor/investigator. In terms of the allocations of the cases, it seems that there is no specific tendency to allocate some types of case to in-house staff and other types to contractors; while it is possible that complex cases are more likely to be given to either in-house agency EEO employees or EEO contractors.
Chapter III. Literature Review: Theoretical Backgrounds and Hypotheses

1. Introduction

This chapter reviews the ideas that previous studies have argued and discovered in terms of contracting performance, in order to extend our knowledge and understanding of government contracting out in performance management. This dissertation aims to answer the following three research questions:

1) Does contracting achieve better or worse performance in DCP tasks compared to in-house delivery?
2) Which managerial, contextual factors, and contract characteristics affect contracting performance in DCP tasks?
3) Do agencies using EEO contractors experience a higher or lower discrimination complaint rate?

The purpose of this chapter is fourfold. First, it aims to provide a theoretical framework for contracting out by presenting the main contracting out theories and government contracting models. Second, the chapter seeks to develop performance measurement for DCP tasks by thoroughly reviewing prior work on measuring performance of complex services for DCP values. Third, the chapter intends to integrate the literature on contracting out into the literature on performance measurement, in order to establish hypotheses for analyzing contracting performance in human resource management services for DCP values. In doing so, it will help us to understand how to successfully manage contracting out performance in DCP tasks in the
public sector. Lastly, this chapter proposes the association between contracting use in DCP tasks and discrimination complaints as another important outcome of diversity management programs.

To fulfill the purpose of the chapter, the following key topics will be discussed. Before looking into the key topics, I will explain the main topics of the literature review in each case, as follows: 1) government contracting in performance management, 2) performance measurement in mission-extrinsic, DCP tasks, 3) contracting out for performance in DCP tasks, by integrating the discussion of performance measurement of DCP endeavor into the literature on government contracting in performance management (see figure III-1), and 4) contracting use and discrimination complaints. After reviewing and analyzing the literature on each topic, I will propose hypotheses based on the theories and prior findings.

Figure III-1. Organization of Literature
2. Government Contracting in Performance Management

The goal of this study is to examine performance in contracting for DCP tasks that are usually complex and difficult to measure. Figure III-2 depicts the research framework of the study used to fulfill this goal. This section describes the main theories and findings for government contracting in performance management. In particular, it highlights how contracting theories explain contracting dynamics, and why contracting out has been used for government services. According to conventional contracting theories, contracting out complex government services in which performance is difficult to measure and observe is rarely recommended. Despite this, this dissertation acknowledges that many government agencies can face situations where they would need to contract out for complex services to achieve DCP values.

Figure III-2. Research Framework of Performance in Contracting for DCP Tasks
Why does contracting out matter to performance management systems in the public sector? Implementing a contracting strategy is based on the assumption that cost-effectiveness and results-oriented public administration is the government’s primary goal. Contracting out has been utilized over the decades in order to enhance government effectiveness in several types of task, or to increase cost-benefit effectiveness. The main idea behind contracting is to avoid a situation where a government delivers products and services as a monolithic provider, requiring competition among providers. Another rationale for contracting out is that it allows government agencies to have more flexibility when hiring. Compared to hiring federal employees, public agencies can hire contractors without long-term commitment. Moreover, contracting out in government agencies is also based on the belief that it will save them money. In this sense, in a performance management system, contracting out has been referred to as a possible government tool that can enhance the productivity and effectiveness of government agencies (Kelman, 2002). By selecting and hiring a competitive agent or third party, a government believes that contracting out provides better governmental services, or products with fewer costs, allowing more flexible and cost-efficient resource management.

1) Contracting Theories and Models

In theory, the mechanism of contracting out has been explained by public choice theory, principal-agent theory, incentive theory, and stewardship theory. In the following sections, I will present each theory, focusing on the basic assumptions and main arguments of each that are related to contracting design and outcomes. Also, the empirical evidence supporting or challenging the arguments and the potential caveats of contracting out under each theory will be discussed.
a) Public Choice Theory

Public choice theory originally depicted how public choices or collective decisions are made by self-interested and rational individuals (Buchanan, 2003; Buchanan & Tullock, 1977). However, public choice theory has been applied and replicated in the public administration domain in meaningful ways, being theoretical evidence that integrating market strategies from the private sector into the public sector is beneficial (Averch, 1990; Boyne, 1998; Savas, 1987; Van Slyke, 2002). According to Ostrom and Ostrom (1971), the main assumptions of public choice theory are fourfold. First, individuals are self-interested actors knowing their own preferences. Second, individuals are rational, which implies that the actors consider all possible alternatives in the decision-making process. Third, individuals are assumed to maximize their strategies. Last, the level of information determines individuals’ decisions about maximizing their preferred outcomes. With these assumptions about individuals, public choice theorists argue that bureaucrats in governments, as individuals maximizing their own utilities, try to expand public agencies in terms of size and government budgets (Buchanan & Tullock, 1977).

Public choice theorists have argued that governments need to use market strategies through contracting out to improve government performance. It is assumed that a government tends to expand into a monolithic organization, as bureaucrats focus on maximizing their agencies’ resources and sizes. A giant government as a monopoly becomes inefficient and ineffective, as it tends to concentrate more on expanding resources and benefits while having few incentives to improve performance. Proponents of public choice theory argue that contracting strategies result in cost-saving and better quality of government service. Through market competition and economies of scale, contracting out allows a government to cut down on unnecessary costs and constraints and thus increase productivity (Becker & Sloan, 1985;
Bruggink, 1982; Florestano & Gordon, 1980; Miranda & Lerner, 1995). In doing so, contracting out would resolve the problem of inefficiency and ineffectiveness of the giant monolithic government, and enhance performance (Boyne, 1998; Van Slyke, 2002).

Prior studies have attempted to test the hypotheses and arguments of public choice theory, which mainly state that “contract vendor performance is better than government performance.” A number of studies have compared contracting performance to government performance with regard to delivering public services and products (Bel et al., 2010; Boyne, 1998; Sclar, 2000). For example, the U.S. Department of Housing and Urban Development (HUD) conducted a study to compare costs in eight service areas, both in privately contracted and publicly provided domains. The HUD study finds that cities are saving their costs for blue-collar services through contracting, while there is no cost-saving in white-collar services (e.g., payroll) through contracting (Sclar, 2000). From this study, Sclar (2000) points out important characteristics of blue-collar work that make government contracting cost-effective: most of the services are not highly-skilled work, and “contract performance is comparatively easy to monitor” (p. 57). In addition, another study provides an interesting comparison between privately managed and public prisons in terms of different dimensions of confinement quality (J. M. Alonso & Andrews, 2016). The authors reveal that prisons managed by governments do a better job in some aspects of quality that are relatively difficult to measure (e.g., prisoner safety), whereas privately-managed prisons have better performance in easy-to-measure dimensions of quality (e.g., prisoners’ purposeful activities).

Although public choice arguments and empirical evidence provide great insight into the basic grounds for why contracting out is needed, there are three main caveats when public choice theory is directly applied to public administration studies. First, public choice theorists claim that
governments are inefficient, as bureaucrats only focus on maximizing their utilities and agencies’ resources. This is mainly based on the assumption that individuals are self-interested and utility maximisers. However, these assumptions about self-interested and rational individuals may not always hold. Critics of public choice have maintained that individuals in the public sector (i.e., politicians and bureaucrats) may not necessarily behave according to self-interest. Rather, bureaucrats are likely to be driven by ideology or social and moral incentives (Dilulio, 1994), and they “often operate for the common good and the public interests as they see it” (Pressman, 2004, p. 15) rather than self-interest. In addition, according to motivation theories including public service motivation theory, bureaucrats’ motivation mechanisms might vary and not just depend on their self-interest (P. Alonso & Lewis, 2001; Perry & Wise, 1990). Accordingly, it cannot simply be stated that bureaucrats’ behavior is only driven by their self-interest and that it is adopted to expand their resources and agency size.

Second, in line with the previous point, public choice theory argues that governments need to keep to a small size, and that market competitions are encouraged to intervene in government agencies, otherwise a gigantic government as a monolithic provider is doomed to failure, or at least dysfunction. However, this argument and assumption can be challenged in two ways. First, the assumption that governments always operate as a monopoly may be flawed, because some might view government bureaucracy not as a monolithic actor but as an entity that consists of diverse viewpoints and values (DeHoog, 1986; Rourke, 1984). In other words, governments may experience conflicts around agencies’ differing goals and values in the decision-making process.

More importantly, while accepting this view of monolithic governments, it is a mistake to argue that monolithic governments fail to have lower productivity and efficiency, compared to
those in the private sector. This argument needs to be revisited because sector differences have not been considered. Public goods and services provided by governments are not equivalent to those provided by private companies. The characteristics of public goods and services are different from private ones, such that it is not appropriate to apply the same standards or rules when assessing government productivity and efficiency (deLeon & Denhardt, 2000; Hefetz & Warner, 2004; Starr, 1988). Government agencies may sometimes need to prioritize other social values and missions for the public over saving costs or higher productivity. In this case, market competition might not be an appropriate arena for meeting public and democratic values (Hefetz & Warner, 2004).

Further, there are some public program missions and outcomes where it is difficult to measure quality: for example, how should quality of social welfare programs be measured? Thus, it is not always guaranteed that enhancing efficiency—improving quality with reduced costs—is a proper goal for governments. All in all, there are flaws in public choice claims that a government as a monopoly is inefficient and cannot enhance performance without market competition, because the facets and characteristics of public goods and services are different from private goods and services. Public choice theorists may understate the risk of contractors’ acting according to their incentives in ways that do not align with principals’ goals. The incentive to do so is greater than for public actors, since contractors can retain profits.

Last, along with the caveats of assumptions and arguments, empirical evidence on public choice hypotheses might be flawed in methodological terms. As Boyne (1998) noted, most studies have failed to fully test what public choice theorists hypothesize, due to a lack of multivariate longitudinal research. That is to say, prior studies provide partial or defective evidence on the association between contracting out and its outcomes in the public sector. This
might cause a problem if arguing that contracting out would decrease costs in public services, because there might be other factors that are not included in the model but could both affect contracting out and lower costs. For example, Boyne (1998) argues that empirical evidence on the link between contracting and lower costs might be due to the communities’ preference for lower spending and utilizing contracts. Thus, we need to be wary of misinterpreting the impact of contracting out on service costs and quality using the flawed empirical model, if we wish to fully test and understand public choice theory. In other words, it is important to test public choice theory hypotheses with a more robust model that considers multiple factors.

b) Principal-Agent Theory (Agency Theory) and Incentive Theory

According to principal-agent theory, also referred to as agency theory, the tension between principals and agents is inevitable due to information asymmetry and goal divergence between the actors. Principal-agent theory accounts for the dynamics between the actors participating in contracts, mostly called “principals” and “agents.” Like public choice theory, this principal-agent theory arising from economics, is based on the assumption that all individuals naturally maximize their own utilities and follow their own self-interest. Along with these assumptions about individuals, principal-agent theory has two key arguments: principals and agents have different objectives with regard to contracts, and principals do not know what information belongs to agents (Waterman & Meier, 1998). Jensen and Meckling (1976) note that “if both parties in the relationship are utility maximisers there is good reason to believe that the agent will not always act in the best interests of the principal” (p. 308). Therefore, principals cannot expect agents to do their best to accomplish principals’ goals without incentives or
sanctions, because both actors have different goals and they naturally follow each their own self-interest.

In public administration literature, the theoretical assumptions and frameworks of principal-agent theory have been extensively utilized, not only in looking at the relationship between elected officials as principals and bureaucrats as agents (T. M. Moe, 1984; Waterman & Meier, 1998; B. D. Wood & Waterman, 1991), but also when analyzing interaction between bureaucrats as principals and contractors as agents. As public choice theory has been used to justify contracting out in the public sector, principal-agent theory goes beyond the discussion by giving great insight into how to manage or design contracts in order to mitigate tension between principals and agents. In other words, principal-agent theory provides a theoretical foundation for the importance of why principals need to incentivize agents, and how principals should achieve their goals through contracting relationships.

Incentive theory is also closely related to or sometimes used interchangeably with principal-agent theory, as the core of the two theories is a well-designed incentive structure based on the assumptions of information asymmetry and goal divergence. As a principal and an agent may have different motivations and interests, incentive theories study how incentives are set in order to get contractors’ jobs done successfully (Brown et al., 2006; Heinrich, 1999). According to theories of incentives, principals mainly need to pay attention to two things: agents’ information and behavior – to avoid the problem of adverse selection or moral hazard (Dixit, 2002; Maskin & Laffont, 1982). To avoid adverse selection problems, incentives are to set to reveal what agents know; to avoid moral hazard, incentives need to be set to make agents work hard and therefore enhance their productivity, so they meet the principal’s objectives.
Particularly with the latter, prior research has examined how principals can control and incentivize agents’ behavior to enhance performance. Focusing on compensations (not including promotion or other non-monetary benefits) as an incentive, the discussion on incentive structures has mainly focused on in which cases either piece rates or fixed wages would enhance agents’ productivity (Gibbons, 1998). For example, Paarsch and Shearer's (2000) findings show that workers are more likely to have higher productivity in tree planting firms when they are paid piece rates rather than fixed wages. Shearer's (2004) field experimental study also confirms the conclusion that workers’ productivity is increased when they are paid piece rates (i.e. in proportion to the number of trees planted per day).

Based on agency and incentive theories, public administration scholarship has developed a discussion on contracting models for public services, suggesting an incentive scheme in government contracting settings. One of the most compelling ideas comes from Behn and Kant's (1999) research, where two contracting out models exist, depending on the incentive structure in the government contracts: regulatory contracting and performance contracting. Under a regulatory contract model, which is perceived as a conventional contracting model, contractors are paid based on the inputs or activities they produce. Proponents of regulatory contracting assert that government contracts should be constructed by regulating both actors. Thus, in this type of contract, the vendors would factor in many details, and include requirements to be paid or not to be punished. In doing so, this regulatory model incentivizes contractors to put effort into their input and processes, rather than results. On the contrary, a performance contract only cares about “what results the vendor should produce,” whereas “regulatory contracting specifies precisely how the vendor should do things” (Behn & Kant, 1999, p. 471). In a performance-based contract model, contractors are supposed to be paid when they contribute to accomplishing
goals. In other words, performance contracting pays contractors for specified outcomes and results, rather than for their contribution to input or processes. Thus, performance contracting seems to be more flexible than regulatory contracting, by allowing the vendor to decide how to produce outputs (Behn & Kant, 1999). Martin (2007) also reviews empirical cases of using performance contracting in human service agencies and finds that governments contract such services out in a very different manner in practice.

Given the fact that principal-agent theory and incentive theory provide concrete theoretical backgrounds, critics have claimed that the original assumptions of the theories are hard to meet in reality. Acknowledging the unrealistic assumptions and complexity of the real cases, scholarship has tried to design dynamic traditional principal-agent and incentive models by applying relaxed or realistic assumptions and drafting more detailed model specifications (Courty & Marschke, 2003; Gibbons, 1998; Homstrom & Milgrom, 1991; Meyer & Vickers, 1997; Van Slyke, 2007; Waterman & Meier, 1998).

One of the main problems of traditional principal-agent and incentive theory is that the models do not value the various dimensions of the tasks and the characteristics of performance measure. However, taking a more realistic view, there are multidimensional tasks and performances that are hard to measure and observe (Homstrom & Milgrom, 1991). In line with this, Baker (1992, 2000) also develops the discussion, arguing that incentives may rely on the characteristics of performance measurement. He further suggests that the principal’s goal does not always consist of contractible performance measure, as opposed to what principal-agent and incentive theory initially assume. Detailed implications from his studies may not be applicable to a government setting, because he only examines private firm cases. However, his ideas about incentive systems linked with performance measure can give some sense of an incentive
structure in government contracting setting, where there is a lack of clear or contractible objectives compared to private firms.

Furthermore, the assumption of traditional principal-agent and incentive theory, that static conditions exist in the relationship between principals and agents, does not hold in long-term or other kinds of contracting. This point has also been made by Waterman and Meier (1998), noting that “information and goal conflict both are treated as constants in the model, with little change over time or across settings” (p. 177). However, in some instances, it is possible that principals and agents can exchange information and try to reflect their own objectives in the contract. In this sense, principal-agent relationships can become dynamic through repeated and long-term interactions, which shows more realistic assumptions in that the degree of information asymmetry and goal divergence between the actors will not remain the same during contracting. This is more likely to occur when principals and agents can interact frequently, or when they have a long-term contract relationship (e.g., prisoners’ dilemmas). One study sets up a principal agent (or incentive) model with dynamic evolutions, where the principals can learn and adapt to agent cheating by using the agent’s responses as additional information that can be updated in the model over time (Courty & Marschke, 2003). Even in this relaxed setting, principal-agent theory still assumes that both actors have different objectives and information, but it is argued that the level of information asymmetry and goal divergence can be changed over time.

c) **Stewardship Theory**

As mentioned above, some scholars have challenged the static contract relationship depicted by the traditional principal-agent model by presenting unrealistic assumptions. In line with this, stewardship theory suggests another theoretical view of contracting relationships, criticizing the
assumptions of principal-agent theory. Indeed, stewardship theory is distinguishable from principal-agent theory, starting with its different theoretical assumptions. First, stewardship theory mainly presumes that there is goal alignment between the actors (Donaldson & Davis, 1991), whereas principal-agent theory assumes a goal conflict between the principal and the agent. Thus, stewardship theory argues that there is no longer a principal-agent relationship, but that a principal-steward relationship exists between actors pursuing mutual objectives.

Second, stewardship theorists also challenge one of the main assumptions of principal-agent theory: the existence of information asymmetry between the actors. Stewardship theory assumes that the relationship between a principal and a steward is primarily based on trust and reputation (Donaldson & Davis, 1991; Girth, 2017; Van Slyke, 2007). It also believes that informal norms, such as trust, play an important role in reducing agents’ rent-seeking behavior and information asymmetry. This is therefore more relevant to relational contracting, which also focuses on the important roles of informal norms and frequent interactions between the actors in a contracting relationship (Sclar, 2000). Advocates of stewardship theory mainly discredit the arguments and assumptions of principal-agent theory, arguing that contracting partners do not necessarily need to be enemies in a contracting relationship. Rather, the actors who participate in the contracts can negotiate and even cooperate in activities around contracting, based on mutual understanding and informal norms. Thus, according to stewardship theory, a contracting relationship is not static, but more relational, one where the actors can design and develop open-ended contracts by sharing information over time and building trust in each other. Some scholars further the discussion, particularly in the public administration field, by focusing on building and sustaining a level of trust in interorganizational contracting where principals and stewards come from the same sector (Lamothe & Lamothe, 2012).
Empirical studies have tested this but provided mixed support to stewardship theory, mainly exploring the impact of trust, negotiation and cooperation on contract performance in a broader range of services. When there is a contracting relationship between the same public sector units, they are more likely to build up strong ties and achieve better performance in the tasks as well (Lamothe & Lamothe, 2012). Also, one study finds that child-care vendors possessing a strong contracting relationship are more likely to perceive their performance positively (Amirkhanyan, Kim, & Lambright, 2010). However, scholars warn that “public managers should be cautioned against investing significant resources in carefully detailing as many contractual contingencies as possible and cultivating strong relationships with contractors” (Amirkhanyan et al., 2010, p. 212), as they did not find a significant impact on actual quality of contracting performance measured in the number of regulatory violations. Some evidence supports this concern, showing that reliance on trust is not always effective for government service delivery, which may explain why government-to-government contracting is less likely to appear (Marvel & Marvel, 2008).

2) Contracting Performance Outcomes and Mechanisms

a) Contracting Performance Outcomes

Positive Outcomes of Government Contracting. Proponents of contracting have pointed out that it has a positive impact on government performance, mainly through reducing costs, enhancing service quality and thereby increasing the efficiency of government services. Contracting out is expected to provide cost-effective outcomes and a better quality of government service, according to economic theories such as public choice theory. In particular, as a result of market competition and economies of scale, private providers can deliver qualified
services and/or products at lower cost (Florestano & Gordon, 1980; Miranda & Lerner, 1995), compared to governments, which are usually regarded as a monopoly service providers. With market competition, it is believed that private vendors, unlike monolithic organizations, try invest in their development in order to increase their values and competence, so that they can survive in the market. In addition, in the process of selecting private vendors, governments can usually take advantage of using private agents with lower costs through a competitive bidding process of selecting contractors (Greve, 2001; Savas, 1977, 1987).

There is ample empirical evidence that contracting out is beneficial to providing public products and services in terms of cost savings and better performance, in spite of there being little focus on quality improvement in the services. With respect to cost savings as one of the positive outcomes of contracting, the findings show a positive link between contracting and cost savings (Berenyi & Stevens, 1988; Boyne, 1998; Savas, 1977, 1981; Sorber & Straight, 1995). For example, Deacon (1979) finds that spending on the police service is significantly lower when contracting provides the service. This also supports the ideas of public choice, indicating that private sector supply is more efficient than government supply, as it spends less money. In particular, Hart, Shleifer and Vishny (1997) analyze the case of privatization of prisons and find that private prisons are likely to save more costs compared to public prisons, due to the lower labor costs. However, this shows that private prisons can reduce labor costs by hiring lower quality workers, and that they do not have to pay the public union wage premium, as public prisons usually do. In addition to cost savings, some studies explore other positive performance outcomes of contracting use in the public sector. One study highlights the positive relationship between percentage of budget contracted and educational performance (Rho, 2013). In the refuse collection service, combining private sector provision with public provision is positively
associated with perceived quality of service (Savas, 1977). In addition, DeHoog (1985) provides qualitative evidence that state government officials believe that contracted social service quality has been improved by taking advantage of contractors’ expertise.

**Negative, Perverse or Null Outcomes.** Although governments expect to save costs and achieve some performance outcomes through contracting, negative or null outcomes of contracting might also exist. Opponents of contracting argue that “private contractors would cut quality in the process of cutting costs because contracts do not adequately guard against this possibility” (Hart et al., 1997, p. 1128). In addition, one important counter-effect of contracting is that relying on contracting out may put government accountability and legitimacy at risk (Amirkhanyan, 2008; Milward & Provan, 2000), which could result in a *hollow state* in the end. The term *hollow state* has generally been used as a metaphor to show great concern about the increasing use of third parties in public services (Milward, 1994; Milward & Provan, 2000).

Some empirical findings support the argument that the use of contracting has negative or perverse effects on performance in the public sector. Even though there are cost-saving benefits in contracting, empirical evidence on a positive link between contracting and the quality of the public service is still unclear (Boyne, 1998; Van Slyke, 2003). One study demonstrates that the privatization of public nursing homes “increases the number of regulatory violations, decreases residents' quality of life” (Amirkhanyan, 2008, p. 665). Another study uncovers a negative association between contracting and instructional resources (O’Toole & Meier, 2004). Van Slyke (2003) also points out the potentially negative result of contracting, stating that “[w]hen governments reduce their workforces and rely more heavily on nonprofits for expertise in providing public services, governments become more dependent on them for information and services and less able to manage contractors and enforce accountability” (pp. 297–298). Other
studies also present null findings or no empirical evidence of the effects of contracting out. O’Toole and Meier (2004) find no significant relationship between contracting and educational performance. In addition, there is no empirical evidence that private production in water and waste services results in cost savings (Bel et al., 2010).

b) Dynamics of Contracting Performance Mechanism

Research on contracting and privatization has evolved from a dichotomous view of contracting outcomes to a contingency view, arguing that “one-size-fits-all judgments about contracting are generally unrealistic” (Brown et al., 2006, p. 323). As noted earlier, many studies with the conventional view have been more interested in whether or not the implementation of contracting affects performance, rather than which factors influence contracting performance. Scholarship on the contingency view appreciates the complexity of contracting and potential contextual or managerial factors that might also influence contracting performance.

Similarly, contracting literature has drawn attention to the dynamics of contracting performance in the public sector, showing an understanding of its complexity (Hefetz & Warner, 2004). In this sense, it is neither stated that contracting always provides positive outcomes, nor argued that contracting always leads to negative results. Instead, taking a contingency perspective, scholars have perceived that the contracting-performance link is more complicated and dynamic, and that the effect of contracting can also depend on various contextual factors. Malatesta and Smith (2014) note, “as the problems become more complex and the ways to structure relationships become more varied, the written agreements to address them also become more challenging” (p. 531). Acknowledging the complexity of the contracting performance mechanism, many studies have attempted to analyze the question of under which conditions
government contracting out could be a triumph or a disaster. A group of studies has explored conditions for successful contracting out, such as sufficient competition among agents, managerial capacity and performance measurement planning (Romzek & Johnston, 2002; Van Slyke, 2003). In addition, it has been argued that whether or not contracting out strategies are successful is dependent on market situations and organizations’ ability at managing contracts (Brown et al., 2006).

With respect to government contracting, it becomes more crucial to investigate potential factors and conditions that might affect contracting performance in the public sector, because contracting out has been applied to government agencies that tend to produce a complex range of service and products. Public administration scholarship calls for more research on contracting in diverse but detailed contexts, as there are political, social and legal contexts that might affect its implementation and operation in the public sector. Thus, there are more contextual factors that need to be considered to give an understanding of contracting out performance in this sector. Davis, Girth, and Stazyk's (2016) study elucidates contract performance dynamics, examining how both social factors and technical factors jointly influence contract performance in the public sector. As political pressures influence whether or not government agencies use contracting out, or what needs to be contracted, it is possible that contracting out will be no more than rhetoric and have no significant and positive outcomes (Brown et al., 2006). Legal requirements may lower market competition by discouraging private and nonprofit organizations from participating in contracting with governments (MacManus, 1991; Prager, 1994), which is in turn “diluting the advantages of contracting relative to in-house service delivery” (Brown et al., 2006, p. 326).

Sometimes, including more detailed contextual and managerial factors tells a more nuanced story about the contracting-performance relationship. In a broader context of public-
private partnership, the evidence shows that good network management is crucial for successful public-private partnership outcomes, although the organizational form of the partnership itself does not have a significant impact on the outcomes (Kort & Klijn, 2011). Well-trained public managers can be game changers in contracting and play a critical role through using their previous experience and knowledge. Public managers with expertise are capable of using managerial strategies to establish a contractual relationship with detailed specifications, including requirements, incentives and rewards and performance measures. In particular, framing detailed contracts is important, because it allows a public agency to monitor agents’ work and enforce their accountability (Van Slyke & Hammonds, 2003).

Indeed, in addition to examining the outcomes of contracting, acknowledging the complexity of the contracting mechanism is also crucial for deepening our understanding of contracting out in the public sector. In other words, managerial and contextual factors also need to be considered when we wish to evaluate contracting outcomes, which in turn gives better insights into contracting for performance management. With this in mind, contracting performance outcomes as well as specific managerial and contextual factors for contracting for performance in DCP tasks will be discussed later, in section 4.

3. Performance Measurement on DCP Tasks

1) Importance of Performance Measurement

Before looking at the literature on contracting performance for DCP tasks, this chapter discusses why performance measurement is important in performance management, and reviews what has been discovered in the literature on performance measurement to date, especially relating to DCP tasks. Performance measurement can be defined as “regular measurement of the
results (outcomes) and efficiency of services and programs” (Hatry, 2007, p. 3). Under the rhetoric “what gets measured, gets done” (Peters & Waterman, 1982, p. 263), performance measurement has been perceived as a crucial factor for effective performance management systems, both in scholarship and in practice (Hatry, 2007; Heinrich, 2002; Moynihan, 2008; U.S. Government Accountability Office, 2005). The concept of performance measurement has received a great deal of attention since the reinventing government movement emerged in the late 1980s, mainly in terms of holding public agencies accountable for results (Kravchuk & Schack, 1996; Osborne & Gaebler, 1993). Under the Government Performance and Results Act (GPRA) of 1993, federal agencies are required to establish and develop their performance indicators and report to what extent they are meeting performance targets. Murphy and Carnevale (2001, p. 57) encapsulate what the GPRA expects through the implementation of performance measurement.

It is not possible to hold agencies accountable without some standard against which their performance is gauged. Consequently, implementation of GPRA required federal departments to develop plans for performance measurement. It should be noted that the management benefits of such a system could extend well beyond the need to comply with a statutory requirement. In addition to providing support for accountability, performance measurement systems can also assist in improving program delivery overall as well as forcing an agency to clarify and focus its long-range strategic planning efforts.

Scholars have also argued that measuring performance is important for organizational effectiveness (Behn, 2003; Hatry, 2007). The findings show that developing and using a diverse
set of performance measures is essential, because different performance measures may have
different impacts on managerial effectiveness (Amirkhanyan, 2011). Performance measures can
affect performance by drawing management attention to performance goals and motivating
public managers and employees to behave, enhancing organizational performance (Heinrich,
1999). In line with this, performance measurement can be a “useful tool[s] that can generate
useful information on performance and prompt the agency to use sanctions” (Amirkhanyan,
2011, p. 326). Even more, performance measurement systems affect decision-making in public
agencies, which brings “important implications for how performance measures should be
chosen” (Courty & Marschke, 2007, p. 912). Performance measurement can be utilized to
strengthen public managers’ or government performance evaluation systems, and in turn enhance
their actual performance. Consequently, it has been emphasized that government agencies need
to build up and expand their capacities to successfully implement a performance measurement
system, encouraging public managers to use it, enabling them to in turn be held accountable
(Berman & Wang, 2000; Kaifeng & Holzer, 2006).

Among a wide range of performance measurements, it is useful if outcome-based
indicators are identified and kept track of. In general, efficiency is a performance measure that is
usually used in calculating the proportion of input to output. However, it is not easy to capture
output quality using input-to-output ratio, as it is more likely to reflect the amount of output, so it
is argued that an outcome-focused efficiency indicator can be more accurate (Hatry, 2007).
Although measuring outcomes as a performance measure can be a more accurate and ideal way
of enhancing accountability, there are many cases in which outcomes cannot be easily measured,
which is problematic. In this case, performance outcomes that cannot be easily observed or
measured could be ignored, regardless of their significance. Thus, it is suggested that “the system
needs to include a comprehensive set of indicators that track undesirable outcomes” in addition to the regular indicators that measure “progress outcomes toward an outcome” (Hatry, 2007, pp. 61, 59).

2) Measuring Performance of Mission-Extrinsic, DCP Tasks

In this sense, it is particularly worth looking at performance measurement for DCP tasks that tend to be complex and difficult to measure. Unfortunately, most literature on results-oriented public management has focused on mission-based program outcomes, assuming that outcomes and performance are easy to define and measure. Nevertheless, in the domain of public administration, there are also non-traditional outcomes, including DCP task performance, that are less quantifiable and palpable.

Relying on performance measurement may lead agencies to pay attention to measurable indicators and neglect other outcomes that are important but difficult to quantify (Hatry, 2007). Hatry particularly argues that equity is often ignored in performance measurement discussion, in spite of its importance in public programs. The main problem is that although some argue that democratic values can be integrated into agency missions, “their direct connection to specific performance outputs and outcomes is difficult or impossible to measure” (Piotrowski & Rosenbloom, 2002, p. 651). This inattention to non-mission-based values, which can be classified as a form of goal displacement, results in the neglect of important performance of DCP values and tasks under a results-oriented public management system (Moynihan et al., 2011). What is measured will receive more attention, because performance indicators motivate employees and managers to attain better performance outcomes based on those indicators. Furthermore, from a behavioral perspective, performance indicators function as a framing
device, which identifies some values as important and pushes others out of sight. In this sense, performance indicators can work as a strong signal suggesting that an agency prioritizes some values to achieve their goals, such that employees are encouraged to focus on increasing performance scores for the indicators.

However, it is problematic to focus too much on measurable indicators and mission-based values at the expense of other non-mission-based values, considering that many values that public programs pursue are not easy to measure and evaluate in the short term. The literature points out that the Program Assessment Rating Tool (PART) assessment fails to consider “the democratic implications of the ‘help and hassle’ (Mead, 1997) provisions of welfare reform” (Wichowsky & Moynihan, 2006, p. 14), overlooking equity aspects of performance in welfare programs. Van Dooren (2011) refers to it as one of the paradoxes in performance measurement and management, in that “[w]hat is measured gets attention, but many important dimensions are not measurable” (p. 421), although the discussion is not solely focused on DCP tasks but also on the general difficulties of measuring real outcomes that matter for society. Particularly in social service programs, measuring and tracking down outcomes in the long term is a complex task. For example, under the Job Training Partnership Act (JTPA), federal agencies are involved in a job training program for the economically disadvantaged. However, there have been some challenges to measuring actual impacts, due to the absence of counterfactual earnings (i.e., earnings of non-program enrollees) and the difficulties of evaluating long-term impacts on the earnings of program enrollees (Courty & Marschke, 2007). All in all, these challenges make performance in public services difficult to evaluate and manage, compared to in the private sector.
a) **Theoretical Perspectives**

With respect to measuring performance in DCP tasks, there is existing literature on performance measurement, especially focusing on equity, fairness and transparency (see Radin, 2000; Rosenbloom, 2007; Wood & Lewis, 2017). However, “there is no universal protocol in the literature on strategic planning and performance measurement with regard to the treatment of non-mission-based, democratic-constitutional values” (Piotrowski & Rosenbloom, 2002, p. 651). Also, taking a unique approach is recommended when assessing different kinds of performance for multiple values, rather than using a one-size-fits-all strategy (Radin, 2006).

Due to the difficulty of measuring and assessing non-traditional performance in DCP tasks, scholars have attempted to find alternative ways of measuring program performance. Hatry (2007) provides a valuable insight by categorizing programs with difficult-to-measure outcomes and suggesting alternative measures for each case. For example, for programs that might take a long time to produce outcomes, he suggests that “agencies can track early intermediate outcomes such as the percent of time that reports and plans were provided on schedule” (Hatry, 2007, p. 76). His suggestions are worthwhile in that most program outcomes for DCP values take many years to be achieved and sometimes only appear infrequently. In acknowledgment of the measurement challenges in such program outcomes, some studies suggest intermediate outcome measures, particularly using the characteristics of the program design to evaluate its impact on citizenship outcomes, such as social capital and political participation, as an important policy outcome (Wichowsky & Moynihan, 2006, 2008). Additionally, scholars have proposed ways in which agencies can regularly track program outcomes using balanced scorecards (Rosenbloom, 2007), or assess outputs and outcomes for DCP tasks by considering the activities as “proxies for desired outcomes” (Brown et al., 2006, p. 326), if monitoring the activities is undemanding. This
implies that having those alternative measures would be helpful for reducing the difficulties in measuring performance of DCP tasks.

In contracting relationships, even though the outcomes are difficult to measure, “service performance can still be assessed if it is relatively straightforward to monitor the activities of the vendor, and these activities are reasonable proxies for desired outcomes” (Brown et al., 2006, p. 326). Thus, for performance of DCP tasks that are not easy to measure, public agencies can utilize proxies, and this mitigates the possible drawbacks that occur in contracting out with difficult-to-measure services. As a result, it is possible to assess contracting performance of DCP tasks by focusing on the milestones that must be met in the procedure of the tasks.

This dissertation utilizes timeliness of completing procedural milestones as the performance measure for DCP tasks (see table III-1). Hatry (2007) notes that, for programs whose outcomes do not occur very often (such as emergency response programs and federal or state litigation programs), “indicators might include response times and the number of people who are served over the periods” (p. 76). In line with this, Wood and Lewis (2017) specifically measure agency performance for non-mission tasks in the FOIA process, which pursues transparency. Because performance of DCP tasks (the tasks in the FOIA process) is hard to measure and observe directly, they used four proxy measures instead: time to confirm, time to respond, the number of exemptions and whether or not the agency charged fees. In Piotrowski's (2007) study, the speed of processing tasks was taken as a proxy measure in order to assess contractors’ performance in FOIA requests, which is hard to measure directly. In other words, they focus on timeliness measure and/or specific activities that must be carried out during the process as alternative performance measures for non-mission-based, DCP tasks (see table III-1).
Table III-1. Performance Measurement of DCP Tasks

<table>
<thead>
<tr>
<th>Study</th>
<th>Main DCP Tasks</th>
<th>DCP values</th>
<th>Legally based on</th>
<th>Performance measures on DCP tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piotrowski (2007)</td>
<td>Responding to FOIA requests</td>
<td>Transparency</td>
<td>FOIA</td>
<td>• Speed of processing tasks</td>
</tr>
<tr>
<td>Wood &amp; Lewis (2017)</td>
<td>Responding to FOIA requests</td>
<td>Transparency</td>
<td>FOIA</td>
<td>• Time to confirm</td>
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<td></td>
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<td>• Number of exemptions</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Whether or not the agency charged fees</td>
</tr>
<tr>
<td>This study</td>
<td>Dealing with discrimination complaint process</td>
<td>Fairness &amp; non-discrimination</td>
<td>Title VII</td>
<td>• Percentage of timely completed cases in stages (i.e., timeliness)</td>
</tr>
</tbody>
</table>

b) Practical Perspectives

From a practitioner’s point of view, taking timeliness as a performance measure for DCP tasks is also imperative. As mentioned earlier, DCP tasks basically involve achieving DCP values that are based on the Constitution and legislation. Accordingly, provision of DCP tasks is often implemented under federal laws and regulations that set specific timeframes or time limits (e.g., FOIA, and Title VII of the Civil Rights Act of 1964). For example, once a FOIA request is received, agencies have 20 working days to respond to the request, unless there are unusual circumstances. Also, in the federal EEO discrimination complaint process, regulations require that an agency complete the investigation within 180 days of the date of the formally filed discrimination complaint.

More importantly, government agencies use a timeliness measure as a crucial performance target, with a clear sense that the agency’s behavior is subject to performance measures (Courty & Marschke, 2007). Focusing on dealing with the discrimination complaint cases, federal agencies and the EEOC have been struggling to meet the deadlines in practice,
despite the specific timeline articulated in federal regulations (see 29 C.F.R. §1614). As noted earlier, many agencies have concerns about completing these DCP tasks in a timely manner, as the federal sector discrimination process sees much longer delays than there should be. When tasks are delayed, it affects the service recipients, creating serious issues with regard to federal employees’ rights and harming the non-discriminative work environment: “justice delayed is justice denied.” Thus, “delays in processing federal EEO complaints have been long-standing concerns of the Equal Employment Opportunity Commission (EEOC), other federal agencies, and Congress” (U.S. Government Accountability Office, 2009, p. 1), such that practitioners seek to “measure agencies’ progress [in EEO programs] as the timeliness of investigations” (U.S. Government Accountability Office, 2009, p. 1).

The federal EEO officials that I interviewed confirm this idea that timeliness is a crucial performance measure in the discrimination complaint process. Timeliness is an important measure for assessing performance of the discrimination complaint process, not only because “the EEOC cares, but also because the procedure is a long one.” They mentioned that “discrimination cases are completed in two to four years, if taken all the way to Final Agency Decision and then appealed to the EEOC, which is a long process.” Also, they noted that the existence of huge backlogs, especially at the EEOC, puts more emphasis on completion of cases in a timely manner. As a result, this long-haul process may affect an employee who needs to bear the brunt of it and endure a discriminative work environment until the case is resolved.

Regarding this, one might argue that it is possible that EEO staff attempt to complete cases in a timely manner at the expense of quality. However, interviewees doubted this possibility of having some cases where timeliness trumps quality in the complaint process. One interviewee stated that “pursuing timeliness does not trump quality, because they usually develop
investigation plans at the beginning of the process to achieve both timeliness and quality factors.” Further, EEO contractors can keep communicating with the EEO office throughout a case, so it is less likely that contractors will complete tasks too quickly at the expense of quality processing. For instance, if EEO contractors need more time to meet quality requirements, they can usually ask for an extension. For some agencies, it is noted that they care about things being done in a timely manner, but do not urge contractors to complete or resolve the cases quickly if it will harm the quality of the process.

Even with alternative ways of measuring performance for DCP tasks, there are some caveats. Although measuring procedural outcomes and time of processing tasks that must be completed makes it possible to track performance of complex service programs for DCP values, some conflicts between outcomes and values might also exist. For example, aiming to achieve timeliness as performance measures can have an adverse impact on task or service quality. Also, “if a law enforcement agency has only [the] number of police arrests as an indicator, it will tempt staff to harass individual citizens to increase these values” (Hatry, 2007, p. 61). As a result, measuring the quality of complex services, especially for DCP values, remains an important issue. As an example of a quality measure, the number of regulatory violations can be perceived as a quality component of social services (Amirkhanyan, Kim, & Lambright, 2008). In addition, there is a limitation where quantitative measures are sometimes not sufficient to tell the story in spite of the suggested alternative measures. Thus, when alternative measures are utilized as a second-best option, it is important to acknowledge that these quantitative measures might tell us little about results, so qualitative measures would be needed in order to look at these program outcomes in depth (Hatry, 2007).
That being said, this study suggests that performance of complex services with DCP tasks can be assessed using a proxy measure, timeliness of completing the milestones, which must be carried out during the process. Acknowledging the difficulty of directly assessing performance of DCP tasks, having those proxies might be useful for principals when tracking and monitoring output in procedural activities, which is one way of increasing contract management capacity. In the following sections, this dissertation attempts to account for contracting performance in complex DCP tasks by integrating the literature on performance measurement for DCP tasks that are difficult to measure with the literature on conventional contracting theories.

4. Contracting Out for Performance in DCP Tasks

1) Assessing Government Contracting for DCP Tasks: Two Competing Logics

Proponents of contracting argue that government contracting is useful for improving agency performance, especially in the context of results-oriented public administration. However, is this argument still valid for agency performance related to democratic-constitutional values? In other words, is there any evidence that contracting out is as beneficial to agency performance in DCP tasks as it is to performance in conventional “hard” service delivery, such as refuse collection?

With regard to this question, there are principally two competing arguments in terms of the relationship between contracting out and performance of DCP tasks. On the one hand, it can be argued that contracting use may not be effective for DCP tasks for several reasons. One of the main reasons is that, to some extent, DCP values are at odds with the conventional values that contracting out tends to pursue, such as efficiency. Thus, the tension between these values may cause problems, particularly when governments contract with private firms, which are strongly
“motivated by profit and consequently they may focus more on innovation and efficiency” (Brown et al., 2006, p. 327; Hart et al., 1997). Thus, contracting vendors may pursue reducing costs and enhancing efficiency at the expense of other public values, such as DCP values and service quality, if both cannot be achieved at the same time. For example, Brown et al. (2006) note that “when private contractors are forced to choose between taking steps to maintain or upgrade service quality and keeping costs low, public managers should be alert. Vendors may favor reducing expenses, particularly if this means pursuing their own (profit) goals at the expense of the government’s objectives” (p. 327). Even worse, as noted earlier, DCP values and tasks can easily be ignored or underestimated, as they are not normally integral to agency missions. Due to this goal displacement, contractors may not seriously consider enhancing performance of DCP tasks.

Another reason for expecting a negative relationship between contracting use and performance of DCP tasks is that most DCP tasks are difficult to measure and assess. Kelman (2002) puts an emphasis on performance measurement in contracting, as it can be a great challenge for public managers when managing contracting. Proponents of privatization and small governments believe that contracting is still beneficial to the programs whose outcomes are difficult to observe and measure (Bennett & Johnson, 1981; Savas, 1982). However, in contracts for difficult-to-measure services, it is not easy to set clear standards and measures for tracking contractor performance (Kelman, 2002). If performance can be easily measured and assessed in government contracting, it would mean that agents were held accountable for what they perform (Van Slyke, 2003; Van Slyke & Roch, 2004). Conversely, when performance outcomes are difficult to measure and observe, this is likely to create a higher risk of principal-agent problems, which in turn leads to contracting failure. Thus, in principle, it is often suggested that in-house
delivery is more suitable for certain services and products, acknowledging that these kinds of public services can make the principal-agent problems much more complicated (Brown et al., 2006; Hefetz & Warner, 2004; Hirsch & Osborne, 2000).

There are empirical findings supporting a negative (or not positive) relationship between contracting out and performance of DCP tasks. Contracting out can fail to increase performance of some programs when there is still monopoly power in the private sector (Van Slyke, 2003). Taking a more normative view, opponents of contracting out also argue that contractors, who often value their profits and self-interests more, are not the right people to deliver public goods and services for DCP values, because of the conflict between these values. Thus, government employees, not contractors, should play a role in releasing government information (Piotrowski, 2007). Privatization generally reduces transparency, because private contractors are not legally responsible for regulations (Rosenbloom, 2007).

On the other hand, scholars maintain that using contracting may have a positive relationship with performance of DCP tasks, especially when using alternative measures to assess performance of these tasks. Even though a higher risk of principal-agent problems may exist due to difficult-to-measure performance of DCP tasks, this risk can be mitigated if governments put some effort into identifying and clarifying performance metrics in the tasks. Linking literature on performance measures to contracting performance literature, it is possible to assess performance of DCP tasks by utilizing alternative measures and proxies of performance outcomes in these tasks, focusing on the milestones that must be met when they are carried out (see more details in Martin, 2007; A. K. Wood & Lewis, 2017). In contracting relationships, even though outcomes are difficult to measure, “service performance can still be assessed if it is relatively straightforward to monitor the activities of the vendor, and these activities are
reasonable proxies for desired outcomes” (Brown et al., 2006, p. 326). In doing so, principals can monitor the outputs of procedural activities as proxies of performance for DCP tasks, which is one way of increasing contract management capacity. Thus, for difficult-to-measure services such as DCP tasks, public agencies can utilize alternative measures or proxies, and this mitigates the possible drawbacks that occur when contracting out for difficult-to-measure services.

Prior studies provide empirical evidence that contracting out for DCP tasks has a positive influence on performance, in spite of difficult-to-measure outcomes, which is consistent with what proponents of contracting out have maintained. Amirkhanyan (2011) points out that performance measurement is an important factor for managing government contracting performance. More specifically, her study notes that performance measures for cost and service timeliness and detailed processes are positively associated with government contracting effectiveness; whereas evaluations of quality, satisfaction and informal monitoring are negatively related to perceived accountability effectiveness in government contracts. Another study observes that “the use of federal FOIA contractors is not widespread, but if used judiciously to expedite old FOIA requests, they may improve the speed of the release process” (Piotrowski, 2007, p. 80). This study highlights that the speed of processing tasks was taken as a proxy measure in order to assess contractors’ performance in FOIA requests, which is hard to measure directly. In addition, it is suggested that contracting out for social service programs is more effective when competition, trained state contract managers and government managerial capacity exist (Romzek & Johnston, 2002; Van Slyke, 2003).

Overall, there are concerns that private contractors will not honor DCP values, whilst they are generally responsive to measured program outcomes. Therefore, this study proposes a nondirectional hypothesis, because of the conflicting findings in the literature:
2) Managing Contracting Performance in DCP Tasks: Three Strategies

As noted earlier, in-house delivery would be more appropriate for difficult-to-measure or complex services and products, because there is more possibility of failing when complex services and products are contracted out. Notwithstanding this, what if public agencies finally decide to contract these difficult-to-measure services out to the private agent, instead of or in addition to in-house delivery? This is an important point, because in practice a government cannot always provide in-house delivery for complex products and services, and contracting areas of government programs and services have been expanded, due to fiscal restraint and personnel flexibility (Brown, Potoski, & Van Slyke, 2018; DeHoog, 1985).

Also, these kinds of service include public service areas that pursue DCP values (e.g., equity, fairness and public safety) as their ultimate goals. Thus, the provision of services pursuing DCP values (i.e., DCP tasks) often operates under federal laws and regulations (e.g., Title XX of the Social Security Act and Titles II and IV of the revised Comprehensive Employment and Training Act of 1978) (DeHoog, 1985). In the case of contracting for DCP tasks, the measurement of those program outcomes, such as equity, fairness and due process, is hard to specify clearly in contracts (Romzek & Johnston, 2002). The lack of clear performance metrics hinders governments when tracking down and assessing contractors’ work. Consequently, public agencies usually have some difficulty in controlling contract vendors’ rent-
seeking behaviors and forcing vendors to be held accountable for performance of services under contracts.

According to the literature on contracting, some strategies can be distinguished in order to discuss contracting performance of DCP tasks (see figure 2). The first approach is to consider the potential roles of managerial factors that might affect contracting performance. Many managerial factors have been discussed in the literature, including but not limited to competition among vendors and monitoring vendors (Hefetz & Warner, 2004), staff expertise and task complexity. In particular, contextual factors may be more important in contracting for human resource management services for DCP tasks than in simple product/service delivery (e.g., street maintenance and refuse collection services). Because DCP tasks may have complex and difficult-to-measure goals and outcomes, it is difficult to manage contracting performance in DCP tasks without considering contextual contingencies. Thus, understanding the potential roles of managerial factors is essential when accounting for contracting performance of these tasks. In terms of managerial factors that might affect contracting performance, staff expertise and task complexity can also play an important role in managing contracting performance; more specific factors need to be added when analyzing contracting performance of DCP tasks, which will be discussed in the next section.

Secondly, another strategy is setting up a proper incentive structure in contracting relationships, in order to manage contracting performance of DCP tasks. The literature on incentives posits that governments can lessen the potential problems of information asymmetry and goal conflicts in contracting relationships by creating appropriate incentives that motivate contractors to achieve government objectives (Dixit, 2002; Girth, 2017). Thus, building an incentive structure is essential for regulating and managing contractors’ behaviors, and in turn
achieving performance. For complex services contracting for DCP values, an incentive structure will need to be different from that in simple service/product contracting. Contracts for complex services are highly uncertain, so it is suggested that “the principal manages uncertainty by delegating more responsibility to an expert agent and while strengthening incentives and oversight, thus structuring the context under which the agent pursues his or her self-interest” (Brown et al., 2010, p. i56) for contracting with complex products.

The final approach is relying on relational contracts, where public managers can negotiate or cooperate with contractors when establishing and developing the contract (DeHoog, 1990), and/or public managers build relationships with contractors based on trust and reciprocity (Brown et al., 2006, 2018). The former is still based on the principal-agent theory, but in a much-relaxed form. Although governments and vendors are still seen as “principals” and “agents” respectively, this is different from strict principal-agent assumptions, in that both parties can be jointly involved in contracts. In this relationship, they are more like partners, who are in charge of designing and implementing contracts through negotiation, or cooperation in setting the details and conditions of the contract. Therefore, through this relational contract, governments can take advantage of contracting for complex services by making contractors accountable for the objectives of the public services the governments pursue. The latter takes a slightly different view from the first two approaches by using assumptions from stewardship theory rather than principal-agent theory, indicating that principals and stewards (not agents) work together based on reciprocity and trust. If the former relational contract develops in the long term, it becomes similar to the latter relational contract. Focusing on reciprocity and trust in contracts, the latter suggests a cooperative and relative contract between public agencies and vendors as a way of providing better performance in complex service contracting (Brown et al., 2018).
To sum up, there are several approaches to managing potential difficulties in contracting performance for complex and difficult-to-measure public services for DCP values: (1) considering managerial factors relevant to complex services contracting, (2) reinforcing an incentive structure in contracts, or an organizational structure that helps governments monitor contractors’ activities, and (3) utilizing relational contracts focusing on the relationships between governments and contractors based on trust, reciprocity, and shared values and norms. This research will proceed with these approaches to analyzing contracting performance for DCP tasks. Considering these strategies, the following section extends the discussion by identifying potential factors that influence contracting performance for DCP tasks.

3) Managerial and Contextual Factors for Contracting Performance of DCP Tasks:

   Moderating Effects

   a) Staff Expertise

   Studies have provided empirical evidence that public managers play an important role in successful privatization. Moe (1987) indicates the importance of having employees who can monitor and assess the work of private sector contractors. Public agencies are easily captured as a market by contractors with high skills sets, when the agencies do not have employees with sufficient knowledge and skills to monitor and assess contracting performance. Other scholars have also emphasized the importance of setting standards and designs when contracting out in the public sector, and the vital role of experienced managers in framing contractual relationships. There is an empirical finding that “governments establish monitoring procedures partly in response to the transaction-cost risk factors inherent in services and the contracting environment in which they are delivered” (Brown & Potoski, 2003b, p. 293). Also, public managers’
experience and knowledge help to structure detailed agreements which “strengthen public management’s capacity to conduct rigorous oversight and to enforce accountability” (Van Slyke & Hammonds, 2003). Indeed, it is worth including staff expertise in the model to see the impact of level of expertise on contracting performance. This leads to the following hypothesis (see figure III-3):

H2: The relationship between contracting use in DCP tasks and agency performance of the DCP tasks will be positively moderated by staff expertise.

b) Task Complexity

Although there is no consensus about the definition of task complexity in the literature, prior studies have discussed this in literature on decision-making, goal-setting and contracting. Task complexity can be defined in terms of the objective characteristics of the tasks, which implies that “an increase in information load, information diversity, or rate of information change can be considered a contributor to complexity” (Campbell, 1988, p. 43). For example, one study sees complex tasks “as having several interrelated and conflicting elements to satisfy” (Campbell, 1984, 1988, p. 43). When there are multiple paths involved in achieving outcomes and various outcomes to be accomplished, task complexity will be increased (Campbell, 1988). In a similar vein, tasks tend to be complicated when there are multiple steps or a series of decision-making processes. For example, O’Connell (1991) indicates that “discrimination investigation is shown to be a complex task requiring extensive employee decision-making and
the creation of informal rules to facilitate decision-making and task completion. These rules appear to reduce the rate of cause findings” (p.123).

In contracting, task complexity can be referred to as “the degree of difficulty in specifying and monitoring the terms and conditions of a transaction” (Globerman & Vining, 1996, p. 579). The degree to which the task is complex can influence contracting performance, because complicated tasks may result in difficulties in tracking contractors’ performance. Thus, prior studies discuss the role of task complexity in contract dynamics, as task complexity might be a challenge in effective contracting. One piece of research argues that agencies tend to have more ex ante transaction costs when more complex products are contracted out (Petersen, Baekkeskov, Potoski, & Brown, 2019). Also, it is pointed out that, when highly complicated tasks are contracted out, it becomes extremely difficult for public managers to specify the contract details (Fernandez, 2004). This is also because “the requirements of the contract and the means for achieving them may not be very clear, or could be expected to change during the term of the contract” (Fernandez, 2004, p. 21). Consequently, it is hard to hold contractors accountable for their performance, especially when contractors perform complex tasks. Taken together, this leads to the following hypothesis:

H3: The relationship between contracting use in DCP tasks and agency performance of the DCP tasks will be negatively moderated by task complexity.
c) Incentive Structure

Designing a proper incentive structure can be an important factor, according to principal-agent and incentive theories. Focusing on monetary incentives among many other types of incentive (see more details of incentive typology in Girth, 2017), this dissertation considers in particular two types of incentive structure: input-based and performance-based. Relating to the contracting models discussed earlier, input-based incentive approaches are rooted in regulatory contracting, in which contractors are paid based on their input or activities, rather than on results. A time-based incentive structure or an hourly-paid version are the main examples of input-based incentive structures. In contrast, performance-based incentive approaches are rooted in performance contracting, which is designed to control contractors’ performance outputs/outcomes, rather than their input and processes, in order to incentivize contractors to
contribute to results. A case-based incentive structure is a principal example of a performance-based structure.

The question of which type of incentive structure is more appropriate for complex services contracting for DCP tasks is still open to question. On the one hand, input-based incentives with a regulatory contracting approach can be used for complex services contracting, because the results of these services are hard to measure. In this setting, contractors can be motivated to put effort into input, processes and procedural tasks rather than into results. For example, paying employees based on how much time they spend at work, and whether or not they complete mandatory procedural tasks, are good examples of input-based incentives. In this sense, input-based incentives seem suitable for complex service contracting where performance is not easy to measure. However, an input-based incentive structure in regulatory contracts may “create few incentives for the vendor to actually achieve the public purpose underlying the contract” (Behn & Kant, 1999, p. 472). Moreover, to use this type of incentive structure, governments need to specify all the requirements or rules in order to monitor contractors’ activities, assuming that they know the best way to achieve performance. Although these assumptions provide more certainty and give a good prediction of what will happen during the contract, it is not realistic to set specific standards to monitor all activities, and there are various ways of fulfilling complex DCP goals, owing to the great range of contingencies.

On the other hand, some might argue that a performance-based (i.e., output- or outcome-based) incentive structure as part of performance contracting is appropriate for complex services contracting, because input-based incentives cannot directly control contractors’ performance, and the goals are difficult to meet in reality. Compared to input-based incentives, one of the advantages of performance-based incentives is that contractors are motivated to increase their
output and results. For example, contractors are not paid based on their input (e.g., hours), but on outcome (e.g., completing the case). In principle, however, social service performance outcomes might not be easily achieved and may depend on many contingencies. In these circumstances, an unclear performance measure can become an inappropriate incentive that neither promotes contractor performance nor make governments accurately track the contractors’ performance outcomes (Heinrich & Choi, 2007). Thus, especially for some government program outcomes such as public welfare programs, performance contracting can be risky “with low levels of predictability but high levels of responsibility” (Behn & Kant, 1999, p. 473). Nonetheless, proponents of performance contracting argue that there are many different ways to achieve performance and give contracts more flexibility (Behn & Kant, 1999). This assumption acknowledges that contracting performance is affected by diverse situations and contingencies, meaning that it is possible to use a performance contracting approach, even for complex services. This is empirically supported by Martin (2007), who analyzes cases studies and proposes that human service contracting occurs in many different ways in state government contracting, based on managerial and contextual situations. Taken together, this leads to the following hypothesis:

H4: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by a case-based incentive structure.

d) **Shared Norms and Values**

Next, this dissertation looks at the moderating effect of having shared norms and values on the link between contracting use and performance of DCP tasks. Drawing on perspectives
from stewardship theory and previous studies, the existence of relational constructs such as trust and shared norms and values between the contracting parties is beneficial to successful contracting, through reducing transaction costs (Edelenbos & Klijn, 2007; Fernandez, 2009; Girth, 2014). Particularly when the tasks are not easy to monitor and performance of tasks is less quantifiable, it is reasonable to rely more on relational constructs between the actors.

In this sense, when a government wants to contract out DCP tasks, the degree to which two actors (i.e., government agencies and contractors) share norms and values related to DCP tasks is a vital factor that can affect contracting performance. Contractors and governments having a similar understanding of professional and DCP values can reduce transaction costs and the conflicts that can hinder fulfillment of DCP goals. If the two actors share an understanding of the services, it is also likely that the contractors can perform better, in line with their government’s expectations (Amirkhanyan, Kim, & Lambright, 2007). Thus, whether or not the contractors have an understanding of DCP values similar to that of government agencies is beneficial to contracting performance of DCP tasks.

Specifically, when applying these theoretical ideas to the context of the discrimination complaint process, it is worth examining which norms and values are essential for sharing between both parties in the contract. Considering the idiosyncrasies of DCP tasks, this study assumes that some vendors that are designated as owned by socially/economically underrepresented individuals are the ones that have shared norms and values related to DCP tasks. Compared to other vendors that are not, contracting vendors designated as owned by socially/economically underrepresented individuals are likely to have a better understanding of DCP values and tasks. For example, it is possible that a contracting vendor that is owned by socially or economically underrepresented individuals (e.g., women, small disadvantaged
businesses, veterans) is more committed to taking on and dealing with DCP tasks (i.e., discrimination complaint cases).

The policy creating the socially/economically disadvantaged designation explicitly note the importance of giving preference to these businesses because of historical patterns of discrimination against these owners, and the desire to ensure these businesses have access to government contracts as a way of compensating for previous lack of access (Congressional Research Service, 2019). In the current GSA regulations, there are socio-economic indicators focusing on three types of vendors as socially/economically disadvantaged: Women-Owned, Small Business Administration (SBA)-Certified Small Disadvantaged Business-Owned, and Veteran-Owned — that are assumed to possess shared norms and values regarding DCP task contracting. Given historical experience with discrimination, they are more likely to care deeply about facilitating a fair, thorough, and prompt discrimination complaint process. Taken together, this study hypothesizes that shared norms and values presented in three separate types of vendor will positively moderate the link between contracting use and performance of DCP tasks, suggesting the following hypotheses:

H5a: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by women-owned contracting vendors having shared norms and values.

H5b: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by small disadvantaged business-owned contracting vendors having shared norms and values.
H5c: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by veteran-owned contracting vendors having shared norms and values.

5. Contracting Use and Discrimination Complaints

In addition to the main discussion on the link between contracting use and agency performance of DCP tasks, this dissertation also examines whether or not contracting out in DCP tasks has a relationship with another type of agency outcome, the EEO discrimination complaint rate, to answer the third research question in the dissertation. From an agency perspective, if an agency intends to use contractors in the EEO discrimination complaint process in order to complete the milestones in a timely manner, the main performance outcome in using EEO contractors is timely completed milestones of the discrimination complaint process. However, there may be some spillover effects when using contractors in the discrimination complaints process. One of these may be that the use of contractors, either as counselors or investigators, impacts the complaint rate.

There is a lack of theories and empirical evidence to help us directly explore this relationship. However, previous literature on human resource management, sociology and conflict management gives a sense of the potential relationship between using contractors for DCP tasks and the behavior of reporting discrimination complaints. In particular, the evidence shows that a third-party help impacts individuals’ behavior in conflict settings. For example, studies find that the intervention of self-interested third party plays a significant role in conflict
settings by driving disputants to cooperate in a conflict setting (Halevy & Halali, 2015; Halevy, Halali, & Zlatev, 2019).

Drawing on some perspectives from human resource management and conflict management literature, using EEO contractors in the discrimination complaint process can be interpreted in two ways. First, using EEO contractors may be a signal that an agency utilizes “external units” as a third-party help that seem to be more independent and impartial, in order to resolve conflicts. This makes more sense particularly in the context of the EEO discrimination complaint process in federal agencies, because discrimination complaints are sometimes filed against the agency and usually involve federal-sector stakeholders. The stakeholders are mostly insiders (e.g., colleagues or supervisors), so complainants may be concerned about retaliation issues before and even after filing a discrimination complaint. Given this, what if complainants can only proceed with the discrimination complaint process by means of in-house agency EEO staff? Technically, in-house agency EEO employees are also third-party help, as are EEO contractors, in the sense that they are not the stakeholders in the conflict. However, even though the EEO workforce is supposed to be independent from the stakeholders, it is reasonable to argue that complainants might feel concerned or have questions about whether or not the discrimination cases are treated fairly and properly. In this sense, the existence of EEO contractors may make complainants less worried, because the contractors are not insiders. Federal employees who want to file a complaint but are concerned about retaliation or unfair treatment during the procedure might prefer having EEO contractors deal with the complaints for this reason.

Some practical insights from the background interviews with the EEO officials also support the idea that using EEO contractors is for making the process as neutral as possible. In
particular, interviewees mentioned that federal agencies to use contractors as external agents, especially when “conflicts of interest exist in the discrimination complaint procedure.” They suggested several potential cases where conflicts of interest may arise such that the perceived objectivity of the process can be at risk. For instance, if complainants want to file a complaint against a senior manager, executive, or someone within the EEO office, the involvement of in-house agency EEO employees in the complaint process may be problematic. As a result, agencies tend to hire contractors to deal with such complaint cases in order to keep the process neutral and impartial. This is also consistent with the explanations provided by the EEOC, stating that “[a]gencies should consider whether the EEO program would be best served by entering into a formal contract with a third party or whether an informal arrangement with a third party would suffice” to avoid conflicts of interest when processing complaints (U.S. Equal Employment Opportunity Commission, n.d.).

Second, having EEO contractors means utilizing more professionals with a high level of expertise. Prior studies offer some evidence that utilizing trained and experienced third-party mediators is more effective in settling disputes (Arnold & O’Connor, 1999; Ram, 2005). Also, one study finds that the insight and expertise of a mediator has a great impact on disputants’ perceptions of mediator credibility, and in turn their satisfaction with the mediator (Arnold, 2000). When it comes to investigations of discrimination cases, it is reasonable to assume that investigators from the private sector (i.e. EEO contractors) have more experience of dealing with cases than in-house agency EEO employees. Because EEO contractors are usually from private firms that are particularly focused on providing EEO-related services, EEO contractors can be considered highly trained and competent in handling discrimination complaint cases. As a result, it is likely that complainants perceive EEO contractors’ work as more reliable and professional in
the discrimination complaint process, and assume that contractors have more experience and expertise at settlement (see figure III-4).

In line with this, the EEO officials from the background interviews pointed out that federal agencies may use contractors “due to a paucity of resources within the EEO office or the burden of dealing with the cases.” When agencies experience a shortage of resources it is difficult to process complaints in a timely manner, and EEO officials indicate they usually lack sufficient resources. For example, an interviewee explained that they do not have full-time employees to work in EEO services, and that most in-house agency EEO employees are mostly collateral duty ones, because they are a large agency with many field offices; having full-time EEO employees in every field location is not possible. Moreover, there are many requirements within a specific timeframe for completing the cases, as well as increasing caseloads. As caseloads fluctuate and cases arise in different locations the agency needs extra help and resources, with the result that using third-party contractors is regarded as a necessity. One interesting note from an interviewee is that using contractors in the discrimination complaint process is “a matter of survival.” In fact, this EEO official indicated that they do not usually have enough human resources but that the agency is still required to investigate complaints within the specific timeframes set by regulations. This calls for bringing in external resources (i.e., contractors) to provide effective EEO discrimination complaint services in order to meet regulations during the process. Taking these together, I propose the following hypothesis:

H6: Contracting use in DCP tasks will be positively associated with agency discrimination complaint rate.
Figure III-4. Hypothesized Model for Research Question 3

6. Summary

This chapter attempts to broaden our understanding of government contracting out in performance management by reviewing the literature on contracting out and performance in DCP tasks. Through the literature review, the chapter conveys four important messages. First, it provides a theoretical background to contracting out, and empirical findings on the relationship between contracting out and performance outcomes in the public sector. Taken from various contracting theories and models, this chapter introduces three theories: public choice theory, principal-agent theory and incentive theory, and stewardship theory. For each theory, the principal assumptions and arguments are explained, and there is discussion of whether or not and how empirical studies support or challenge each theory’s assumptions and arguments. In addition to examining contracting theories and models, the chapter reviews what the previous literature has found in terms of contracting performance. Earlier studies tend to take a dichotomous view of contracting performance, suggesting that contracting out has either positive or negative outcomes. By contrast, recent studies have recognized the complexity and dynamics of the
contracting mechanism, and thereby have focused on conditions where contracting out would be a useful to aid to achieving better contracting outcomes.

Second, performance measurement for DCP tasks is discussed. It is emphasized that DCP tasks, also called non-mission-based or mission-extrinsic tasks, are not usually the main targets of the agency’s strategic plan. Considering the importance of performance measurement in managing performance, it is worth reviewing how prior research has explored performance measurement for DCP values such as equity, fairness and transparency, which are generally applied across agencies. Although the chapter finds that performance measure for DCP tasks has not yet received much attention, a few studies have attempted to measure this. Due to the difficulty of measuring and assessing non-traditional performance in DCP tasks, alternative ways have been suggested for measuring program performance of DCP tasks, by measuring activities that must be completed as a proxy measure. Some possible caveats of using these proxies, especially with regard to timeliness, are also discussed. It is possible that task quality could be harmed if only timeliness is considered as a proxy measure, meaning that multiple strategies need to be employed when measuring performance for DCP tasks.

Third, this section focuses on assessing government contracting for DCP tasks, and suggests three strategies to manage contracting performance in DCP tasks based on contracting theories. In proposing hypotheses, I closely amalgamate the two previous discussions: contracting performance of DCP tasks and performance measurement of DCP tasks. In terms of the relationship between contracting use and performance of DCP tasks, some evidence shows mixed arguments, which leads to a non-directional hypothesis when assessing the impact of contracting use on agency performance of DCP tasks. In addition, to manage contracting performance, the following strategies are suggested: (1) consider the potential roles of
managerial and contextual factors when public agencies finally decide to contract complex services out to private agents, instead of using in-house delivery, (2) set up a proper incentive structure in contracting relationships in order to manage contracting performance of DCP tasks, and (3) negotiate or cooperate with contractors when establishing and developing the contract, and/or build a relationship with the contractors based on trust and reciprocity, thus relying on relational contracting. Using these strategies, I suggest potential factors that may also influence contracting performance of DCP tasks, and propose hypotheses for the study. The factors that moderate the link between contracting use and performance of DCP tasks include staff expertise, task complexity, incentive structure, and shared norms and values.

Finally, this chapter examines whether or not contracting out of DCP tasks has a relationship with another type of agency outcome, the EEO discrimination complaint rate, to answer the third research question in the dissertation. There is less theoretical evidence directly supporting the relationship between contracting use and agency discrimination complaints. When considering some important findings in the conflict management literature, using EEO contractors signals the use of external units that are more independent when resolving conflicts, as well as the use of experts in conflict management who are well trained and have more experience. This produces the hypothesis that contracting use in DCP tasks will be positively associated with agency discrimination complaint rate. Table III-2 summarizes the hypotheses proposed, based on the literature review and linked to the research questions. For the next chapter, data and method, I will describe the details of the case background, the data and measures for each factor, and the methods that will be utilized for the analysis.
Table III-2. Summary of Research Questions and Hypotheses

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Hypotheses</th>
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<tbody>
<tr>
<td>(1) Does contracting achieve better or worse performance in DCP tasks compared to in-house delivery?</td>
<td>H1: Contracting use in DCP tasks will be <em>either positively or negatively</em> associated with agency performance of DCP tasks measured in timeliness.</td>
</tr>
<tr>
<td>(2) Which managerial, contextual factors and contract characteristics can affect contracting performance in DCP tasks?</td>
<td>H2: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by staff expertise.</td>
</tr>
<tr>
<td></td>
<td>H3: The relationship between contracting use in DCP tasks and agency performance of the tasks will be negatively moderated by task complexity.</td>
</tr>
<tr>
<td></td>
<td>H4: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by a case-based incentive structure.</td>
</tr>
<tr>
<td></td>
<td>H5a: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by women-owned contracting vendors having shared norms and values.</td>
</tr>
<tr>
<td></td>
<td>H5b: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by small disadvantaged business-owned contracting vendors having shared norms and values.</td>
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<td></td>
<td>H5c: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by veteran-owned contracting vendors having shared norms and values.</td>
</tr>
<tr>
<td>(3) Do agencies using EEO contractors experience a higher or lower discrimination complaint rate?</td>
<td>H6: Contracting use in DCP tasks will be positively associated with agency discrimination complaint rate.</td>
</tr>
</tbody>
</table>
Chapter IV. Data and Method

1. Introduction

This chapter describes the data, models and methods used to test the proposed hypotheses, which answer the three research questions: 1) Does contracting achieve better or worse performance in DCP tasks compared to in-house delivery? 2) Which managerial, contextual factors, and contract characteristics affect contracting performance in DCP tasks? 3) Do agencies using EEO contractors experience a higher or lower discrimination complaint rate?

First, I describe the datasets that are used for the quantitative analysis and the measures for each variable. Second, in the model specification and method chapter, I suggest three models (Models I, II, and III) that are related to answer each research question. Using this I explain the methodology for the quantitative and qualitative phases.

2. Data and Measures

1) Data

To test the hypotheses, this study uses 2013-2016 Federal EEO Statistical Report of Discrimination Complaints (EEOC Form 462 reports) data, which are filed by federal agencies. Additionally, the data from the Federal Procurement Data System (FPDS), the Federal Employee Viewpoint Survey, and General Services Administration (GSA) websites and price lists are utilized for some variables. The main sample includes 340 observations at agency level, which is balanced panel data (i.e., 85 federal agencies for each of 4 years). Agencies excluded from the sample include: all National Guard agency units, the United States Postal Service (USPS), four intelligence-related agencies, due to incomplete data, and eleven other federal agencies that are
missing one or more years of Form 462 reports. For Models I and III, balanced panel data with 340 observations will be used. However, Model II uses a sample of 205 observations, after excluding missing values of moderators (e.g., incentive structure and shared values) from the original sample, which is not balanced panel data.

2) Measures

**Dependent Variable I: Performance in DCP Tasks**

As discussed earlier, this study employs a proxy measure – timeliness of completing milestones that must be met – for measuring performance of DCP tasks. Timeliness can be an important performance measure for DCP tasks according to previous research and practical narratives (see a more detailed discussion in Chapter III. Literature Review). Timeliness is calculated by the following items below, taken from EEOC Form 462 reports, measured in a proportion ranging from 0 to 1:

- Timeliness = A consolidated measure calculating the average of the proportions of a) timely completed cases of counseling (excluding remands), b) timely completed cases of investigations, and c) timely completed cases of merit final agency decisions (FADs) without administrative judge (AJ) decision (see details in table IV-1).

**Dependent Variable II: Agency Discrimination Complaints**

As noted earlier, the last research question (i.e., do agencies using EEO contractors experience a higher discrimination complaint rate?) needs somewhat different settings compared to the first two research questions. Therefore, this study has a separate dependent variable,
discrimination complaints, and this is measured by using the rate of agency discrimination complaints taking the data from EEOC Form 462 reports. In detail, this can be calculated by taking the number of complaints filed divided by the number of employees in an agency, and then multiplying by a thousand. The formula is as follows:

\[
\text{Agency Discrimination Complaint Rate} = \frac{\text{Number of Complaints Filed in an Agency}}{\text{Total Agency Workforce}} \times 1000
\]

**Independent Variable: Contracting Use**

This study operationalizes contracting use in two ways. First, contracting use is indicated using the percentage of EEO contractors out of the total EEO workforce, taking the data from EEOC Form 462 reports. The percentage of EEO contractors is calculated by taking the number of EEO contractors divided by the total EEO workforce (i.e., all counselors, investigators and counselors/investigators\(^1\)) and then multiplying by a hundred. If *Contracting Use* is indicated as 0 for an agency, this means that the agency does not use EEO contractors, only having in-house agency EEO employees in the EEO workforce. On the contrary, if *Contracting Use* is indicated as 100, this implies that an agency only uses EEO contractors for dealing with its EEO discrimination complaint cases, without using in-house agency EEO employees. Thus, depending on how much an agency uses EEO contractors out of the total EEO workforce, *Contracting Use* is measured in a percentage ranging from 0 to 100.

\(^1\) When it comes to counting the EEO workforce, it is worth noting that it consists of full-time, part-time, and collateral duty staff. Considering the difference between the positions, this study puts different weights on these roles: the number of full-time EEO staff, half of the number of part-time EEO staff, and a quarter of the number of collateral duty EEO staff. For example, when there are thirty full-time EEO staff, ten part-time EEO staff, and sixteen collateral duty EEO staff in an agency, the study considers that the number of EEO workforce is thirty-nine in total.
Second, contracting use is also recoded into a categorical variable with four categories based on the quartile of the percentage of EEO contractors. The first category represents *Low Contracting Use* if the percentage of contracting use is equal to or below the first quartile, which is the bottom 25 percent. The second category is indicated as *Low/Medium Contracting Use*, if the percentage of contracting is between the first and second quartile, and the third category is *Medium/High Contracting Use*, where the percentage of contracting is between the second and third quartile. The last category is *High Contracting Use*, where the percentage of contracting is equal to or above the third quartile, which is the top 25 percent. The categorical *Contracting Use* variable will be particularly used for Models I and III, where it is worth analyzing extreme cases. For the purpose of this study, the focus will be on a comparison between the top 25 percent group (i.e., *High Contracting Use*) and the bottom 25 percent group (i.e., *Low Contracting Use*).

Table IV-1. Summary of Variables, Survey Items/Calculations and Sources

<table>
<thead>
<tr>
<th>Variable</th>
<th>Survey Item(s)/Calculation(s)</th>
<th>Source</th>
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<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
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<tr>
<td>Performance of DCP Tasks</td>
<td>Timeliness: The average of the three following proportions</td>
<td>EEOC Form 462 reports</td>
</tr>
<tr>
<td></td>
<td>- The proportion of timely completed/ended counseling cases (excluding remands)</td>
<td></td>
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<tr>
<td></td>
<td>- The proportion of timely completed investigations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The proportion of timely merit final agency decisions (FADs) without administrative judge (AJ) decision</td>
<td></td>
</tr>
<tr>
<td>Agency Discrimination Complaints</td>
<td>The standardized rate of agency discrimination complaints (per 1000 employees) = (The number of complaints filed/Total number of employees)*1000</td>
<td>EEOC Form 462 reports</td>
</tr>
<tr>
<td><strong>Independent variable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contracting Use</td>
<td>1) Continuous variable</td>
<td>EEOC Form 462 reports</td>
</tr>
<tr>
<td></td>
<td>The percentage of EEO contractors = 100*(The number of EEO contractors /Total number in EEO workforce)</td>
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or

2) Categorical variables (based on the quartiles)
Low Contracting Use* = from the min to Q1
Low/Medium Contracting Use = from Q1 to Q2
Medium/High Contracting Use = from Q2 to Q3
High Contracting Use = from Q3 to max

*denotes the reference group

<table>
<thead>
<tr>
<th>Control variables</th>
<th>EEOC Form</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff Expertise</strong></td>
<td>462 reports</td>
</tr>
<tr>
<td>The weighted average of the number of new and experienced EEO staff classified in training hours = {1*(The number of new staff receiving no training) + 2*(The number of new staff receiving more than 8 hours and less than 32 hours)+ 3*(The number of new staff receiving 32 hours or more)+ 4*(The number of experienced staff receiving no training) + 5*(The number of experienced staff receiving more than 8 hours and less than 32 hours)+ 6*(The number of experienced staff receiving 32 hours or more)}) / Total number of EEO staff</td>
<td></td>
</tr>
<tr>
<td><strong>Task Complexity</strong></td>
<td>462 reports</td>
</tr>
<tr>
<td>Proxy metric: The proportion of unresolved cases in a pre-complaint process (i.e., ADR process) = 1- (The number of completed ADR cases with settlements with benefits or no formal complaint filed/ The number of cases accepted into ADR program)</td>
<td></td>
</tr>
<tr>
<td><strong>Incentive Structure(^{2})</strong></td>
<td>GSA Pricelists</td>
</tr>
<tr>
<td>The proportion of contracting vendors using a case-based incentive structure = (The number of vendors suggesting a case-based incentive structure)/ Total number of contracting vendors used</td>
<td></td>
</tr>
<tr>
<td><strong>Shared Norms and Values</strong></td>
<td>GSA Website or/and GSA Pricelists</td>
</tr>
<tr>
<td>Proxy measures: three separate binary variables, respectively indicating whether or not an agency has at least one (or more) contracting vendor(s) indicated as 1) Women-owned, 2) Small Business Administration (SBA) Certified Small disadvantaged-owned and 3) Veteran-owned.</td>
<td></td>
</tr>
<tr>
<td><strong>Independence of EEO Director</strong></td>
<td>EEOC Form</td>
</tr>
<tr>
<td>A binary variable: “Does the EEO director report to the agency head?” (Yes=1, No=0)</td>
<td>462 reports</td>
</tr>
</tbody>
</table>

\(^{2}\) Some vendors employ both time-based and case-based (T/C) incentive structures. When calculating the number of vendors with case-based incentive structures, the vendors using T/C incentives are indicated as 0.5, while the vendors using only a case-based one are indicated as 1.
**Moderators and Control Variables**

**Staff expertise.** Staff expertise is an important managerial factor that can affect contracting performance of DCP tasks, as suggested by public choice theory. To measure staff expertise, this study creates a variable that employs both training hours completed in a year and the balance of new versus experienced EEO staff, taken from EEOC Form 462 reports. The detailed formula is presented in table IV-1. For a numerator, I use the weighted mean of the number of new and experienced EEO staff receiving different training hours. New staff are weighted less than experienced staff, and staff with no training in a year are weighted less than those completing 32 or more hours in a year. Combined, new staff with no training receive the lowest weight, while experienced staff with 32 or more hours training are weighted the most.
New and experienced EEO staff are required to have a certain number of hours training per year, according to regulations (29 C.F.R. §1614) (U.S. Equal Employment Opportunity Commission, 2016). For instance, the EEOC requires agencies to ensure that all EEO staff, regardless of whether they are new or experienced, receive a minimum of 8 hours training every year. Also, it requires that all new EEO staff receive a minimum of 32 hours training. This measure does not, however, directly capture level of staff expertise, because there are other components, such as understandability, training hours and staff types, which consist of staff expertise. Nevertheless, employing the proportion of weighted average of number of new and experienced EEO staff reflecting training hours is also useful for representing staff expertise, as both EEO staff types (i.e., new and experienced) and staff training hour categories are thus fully considered.

**Task complexity.** It is essential to consider task complexity as a contextual factor that influences contracting performance of DCP tasks. Referring back to the discussion from contracting theory and to previous evidence, contracting out complicated tasks makes it more difficult to monitor and evaluate contractors’ performance (Fernandez, 2004). To measure task complexity, this study develops a proxy measure using the proportion of unresolved cases in a pre-complaint process from EEOC Form 462 reports. In general, discrimination cases will go through this pre-complaint procedure, which includes a counseling or ADR process, before they are officially filed. This implies that some cases can be resolved in a pre-complaint process if they are relatively less complicated. When the discrimination complaint case is complex, such as in some cases where it is hard to find the cause, or the parties cannot reach an agreeable decision, the case might not be easily resolved in the Alternative Dispute Resolution (ADR) process, which is a pre-complaint process. With this in mind, this study particularly utilizes the rate of unresolved cases in the ADR process (i.e., the ADR resolution rate subtracted from one) as a
proxy to measure task complexity. The detailed formula is shown in table IV-1. Although this proxy metric has a limitation in its ability to directly capture the level of complexity of the tasks, the rate of unresolved cases in the ADR process also denotes the level of complexity in a different way. By interpreting the extreme values of the task complexity, if its value is zero, this means that all claims initially accepted into the ADR program are completed during the ADR process. On the contrary, if the value of the task complexity is one, the maximum value, this indicates that all claims initially accepted to the ADR program are not resolved during the ADR process.

**Incentive structure.** Being related to contract vendor characteristics, incentive structures are worth consideration, by drawing on some insights from principal-agent and incentive theories. As described earlier, incentive structures in contracting can be divided into two cases. One is for agencies whose contracts gives contractors incentives through hourly rate (hourly rate incentives), and the other is for those whose contract offers contractors incentives based on the number of cases they complete (case-based incentives). According to theories and previous studies, agents tend to be motivated to spend more time completing cases when they have timely based incentives in contracts, while a case-based incentive encourages contractors to finish their cases. I thereby hypothesize the positive moderating effect of having a case-based incentive.

For contracting vendors in discrimination complaint cases, the pre-approved GSA price lists indicate which incentive structure will be used to pay vendors (e.g., time-based, case-based, or both). Using the data from the pre-approved GSA price lists, this study measures incentive structures by using the proportion of contracting vendors used by an agency with a case-based incentive structure. It is important to employ this proportion, rather than a dichotomous variable,
because some agencies use more than one vendor. To calculate this, I take the number of vendors using a case-based incentive structure divided by the total number of contracting vendors. It is worth noting that, in the dataset, there are some vendors indicated with both case and time-based incentive structures. Thus, regarding calculation of number of vendors using a case-based incentive structure, the vendors indicating both incentives (case and time-based) in their pricelists are marked as 0.5, while those with only case-based incentives are marked as 1. Focusing on the meaning of the extreme points, if Incentive Structure is 0, this indicates that an agency only has vendors using a time-based incentive structure. If Incentive Structure is 1, this implies that an agency only has vendors using a case-based incentive structure. One limitation is that I employ incentive structures stated in the pre-approved GSA price lists, not in the actual contracts, due to the lack of available data.

**Shared norms and values.** As another contract vendor characteristic, shared norms and values are considered, based on discussion from stewardship theory. With regard to shared norms and values between contractors and agencies, this study looks at whether an agency has contract vendors that possess shared DCP values. The question of whether or not contracting vendors possess shared norms and values cannot be directly measured, so this study uses a proxy metric by utilizing some socio-economic indicators of contracting vendors provided by GSA websites and/or pre-approved GSA price lists. In particular, it assumes that vendors owned by socially/economically underrepresented individuals are likely to have a better understanding of DCP values and tasks, which demonstrates a higher level of shared norms and values. To consider this, this study operationalizes the Shared Norms and Values variable by specifically using three separate binary variables, respectively indicating whether or not an agency has at least one (or more) contracting vendor(s) indicated as 1) Women-owned 2) Small disadvantaged-
owned (SBA certified), and 3) Veteran-owned (including service disabled veteran-owned). This means, compared to other vendors, contracting vendors that receive any of the three designations are more likely to have shared DCP values. It is worth pointing out that there are some limitations in the measures for shared norms and values when utilizing proxy metrics. Although it would be reasonable to use socio-economic indicators to indirectly measure whether or not vendors understand DCP values better, there are some cases where this does not work. Nevertheless, given the dataset and the goals of the policy, using the socio-economic indicators categorized by GSA is a feasible way of capturing whether or not vendors have shared values with agencies.

**Independence of the EEO director.** There are several factors that need to be controlled in this model: firstly, whether or not an agency EEO director reports to the agency head. The EEOC report (2014) describes why independence of agency EEO directors is crucial.

When the EEO director is under the authority of others within the agency, the agency creates a potential conflict of interest where the person to whom the EEO director reports is involved in or would be affected by the actions of the EEO director. By placing the EEO director in a direct reporting relationship to the agency head, the agency underscores the importance of the EEO to the agency’s mission and ensures that the EEO director is able to act with the greatest degree of independence. (p. I-1)

Therefore, it is important to include the factor indicating the independence of the agency EEO director in this model as one of the control variables. To measure the independence of the EEO director, this study uses a question in the EEOC Form 462 reports, “does the EEO director
report to the agency head?” As an agency has to report and answer this question as either yes or no, it is thus a binary measure.

**Types of agency mission.** In addition to this, the type of agency categorized by the mission will also be included as a control variable. For example, financial regulatory agencies tend to have a higher discrimination complaint rate (Rubin, Park, & Alteri, 2017). Variables indicating ten different mission types were adopted from the Partnership for Public Service and Rubin et al. (2017), including financial regulation, science and research, energy and environment, public health, economic development, oversight, law enforcement, social support, national security, and all other agencies. Thus, this dissertation will add the categorical variables of agency types in running models, excluding the reference group, to all other agencies.

**Diversity climate.** Diversity climate is controlled in this model to consider the agency’s environment with regard to workforce diversity (S. Choi, 2017). This study utilizes three items from the Federal Employee Viewpoint Survey (FEVS) that have been used in previous studies (S. Choi, 2012; Oberfield, 2016). To measure the degree to which an agency work environment is open to diversity, this study uses three survey items from the FEVS, including “supervisors/team leaders in my work unit are committed to a workforce representing all segments of society,” “policies and programs promote diversity in the workplace (for example, recruiting minorities and women, training and awareness of diversity issues, mentoring),” and “managers/supervisors/team leaders work well with employees from different backgrounds” measured in five-point Likert scales. I use an additive index of these three items for the study, and calculate a weighted average score for each agency. Cronbach’s alphas for these three items range from 0.84 to 0.93, which indicates that the three items share covariance highly.
In addition to these, *Contracting Vendors* are included as binary variables in a relevant model to control the potential influence of other vendor characteristics on performance of DCP tasks. For example, there are 46 contracting vendors included as binary variables in Model I that will be specifically presented in the next section. These contracting vendor variables are not included in Model II, where contract characteristics (i.e., incentive structure and shared values) are given, and Model III, where contracting vendors are not relevant to the dependent variable. *Workforce* is included to control for the size of the agencies, by taking the natural log of the number of employees, and *Year* dummy variables (the base year is 2013) are added into the model to control for the effect of the unchanging characteristics of the year across the units. These factors are selectively included in the model specifications as moderators or control variables to ensure effective analysis.

3. **Model and Methodology**

1) **Model Specifications**

Deeply grounded in theories and literature, this research develops separate model specifications to test the hypotheses used to answer each research question. Model I looks at the relationship between contracting use and agency performance of DCP tasks, answering the first research question. Model II tests moderating effects on the link between contracting use and performance of DCP tasks, answering the second research question. Model III tests the link between contracting use and EEO discrimination complaint rate.
• Model I: Does contracting achieve better performance in human resource management services for democratic-constitutional, procedural (DCP) tasks compared to in-house delivery? (RQ 1)

\[ PERFORMANCE_{\text{TIMELINESS}}_{it} = \beta_0 + \beta_1 CONTRACT_{it} + C + \delta_t + u_{it} \]

(i= agency and t=year)

where \( PERFORMANCE_{\text{TIMELINESS}}_{it} \) is the proportion of timely completed tasks; \( CONTRACT_{it} \) is the percentage of EEO contractors out of total EEO staff (a continuous variable for Model I-1 or a categorical variable for Model I-2); C includes control variables (i.e., Staff Expertise, Task Complexity, the Independence of the EEO Director, Workforce (ln), Diversity Climate, Agency Missions, and Contracting Vendors); \( \delta_t \) represents a year fixed effect; \( u_{it} \) is an error term; and \( \beta_0 \) and \( \beta_1 \) are estimable parameters.

• Model II: Which managerial/contextual factors and conditions can affect contracting performance in human resource management services for DCP tasks? (RQ 2)
\[ \text{PERFORMANCE}_{T\text{IMELINESS}}_{it} \]

\[ = \alpha_0 + \alpha_1 \text{CONTRACT}_{it} + \alpha_2 \text{EXPERTISE}_{it} + \alpha_3 \text{COMPLEXITY}_{it} \]

\[ + \alpha_4 \text{INCENTIVE}_{it} + \alpha_5 \text{SHAREDVALUE}_{WOMEN}(WO)_{it} \]

\[ + \alpha_6 \text{SHAREDVALUE}_{DISADVANTAGED}(DO)_{it} \]

\[ + \alpha_7 \text{SHAREDVALUE}_{VETERAN}(VO)_{it} + \alpha_8 \text{CONTRACT} \times \text{EXPERTISE}_{it} \]

\[ + \alpha_9 \text{CONTRACT} \times \text{COMPLEXITY}_{it} + \alpha_{10} \text{CONTRACT} \times \text{INCENTIVE}_{it} \]

\[ + \alpha_{11} \text{CONTRACT} \times WO_{it} + \alpha_{12} \text{CONTRACT} \times DO_{it} + \alpha_{13} \text{CONTRACT} \times VO_{it} \]

\[ + \alpha_{14} WO \times DO_{it} + \alpha_{15} WO \times VO_{it} + \alpha_{16} DO \times VO_{it} + \alpha_{17} \text{CONTRACT} \times WO \times DO_{it} \]

\[ + \alpha_{18} \text{CONTRACT} \times WO \times VO_{it} + \alpha_{19} \text{CONTRACT} \times DO \times VO_{it} \]

\[ + \alpha_{20} \text{CONTRACT} \times WO \times DO \times VO_{it} + \gamma_t + \epsilon_{it} \]

(i= agency and t=year)

where \text{PERFORMANCE}_{T\text{IMELINESS}}_{it} is the proportion of timely completed tasks; \text{CONTRACT}_{it} is the percentage of contractors out of total EEO staff; \text{EXPERTISE}_{it} is staff expertise; \text{COMPLEXITY}_{it} is task complexity; \text{INCENTIVE}_{it} is an incentive structure; \text{SHAREDVALUE}_{WOMEN}_{it}, \text{SHAREDVALUE}_{DISADVANTAGED}_{it} and \text{SHAREDVALUE}_{VETERAN}_{it} are whether or not an agency has at least one (or more) contracting vendor(s) indicated as women-owned, SBA certificated small disadvantaged-owned and veteran-owned respectively; C includes control variables (i.e., Independence of the EEO Director, Workforce (ln), Diversity Climate and Agency Missions);

\[ \gamma_t \] represents a year fixed effect; \[ \epsilon_{it} \] is an error term; and \[ \alpha_0, \alpha_1 \ldots \alpha_{20} \] are estimable parameters.
• Model 3: Do agencies using EEO contractors experience a higher discrimination complaint rate? (RQ 3)

\[ DISCRIMINATION\_COMPLAINTS_{it} = \gamma_0 + \gamma_1 CONTRACTION_{it} + C + \eta_t + \theta_{it} \]

(i= agency and t=year)

where \( DISCRIMINATION\_COMPLAINTS_{it} \) is the discrimination complaint rate; \( CONTRACTION_{it} \) is the percentage of EEO contractors out of total EEO staff (a continuous variable for Model I-1 or a categorical variable for Model I-2); C includes control variables (i.e., Independence of the EEO Director, Workforce (ln), Diversity Climate and Agency Missions); \( \eta_t \) represents year fixed effect; \( \theta_{it} \) is an error term; and \( \gamma_0 \) and \( \gamma_1 \) are estimable parameters.

It is worth mentioning that all three models control agency missions rather than using agency fixed-effects models. The main reason for not using agency-fixed effects is that this might cause overspecification issues. Although using agency fixed-effects model controls for the omitted time-invariant characteristics in the units, “one side-effect of the features of fixed-effects models is that they cannot be used to investigate time-invariant causes of the dependent variables” (Kohler & Kreuter, 2005, p. 245). Because the dataset covers only four years, and it seems that the contracting use variable is a time invariant cause of the dependent variable, the results turn out to be awkward when I run agency fixed-effects models. The three models in this dissertation are a case where overspecification issues occur, so it is not appropriate to control all agencies.
2) **Methodology**

   a) **Quantitative Phase**

   This study uses fractional response generalized linear models (GLM) and ordinary least squares (OLS) regression. The fractional response GLM model is used for Models I and II. In Model III, the OLS model is used for the quantitative analysis. The reason for using fractional response GLM is that the dependent variable in Models I and II (i.e., timeliness) is measured in a proportion that has a range from 0 to 1. It is likely that OLS assumptions might not be met when the dependent variable is indicated as a proportion. Accordingly, OLS regression models might not be appropriate for predicting timeliness operationalized in a proportion that has an interval from 0 to 1. In this case, a fractional response generalized linear model is more suitable for predicting values, which is a “quasi-maximum likelihood estimation with a fractional logit technique” (Papke & Wooldridge, 1996; Smith & Fernandez, 2010, p. 92).

   This study runs each model with some variations. As noted earlier, I run Models I and III in two different ways in order to provide robust regression results, as well as a more thorough understanding of these results. For Models I and III, I first test the effect of contracting use by employing it as a continuous variable. Then, each model (Models I and III) is run with the categorical *Contracting Use* variable by adding four dummy variables (i.e., *Low Contracting Use*, *Low/Medium Contracting Use*, *Medium/High Contracting Use*, and *High Contracting Use*). The reference group is the *Low Contracting Use* group. In doing so, the results from these models allow us to compare performance between agencies with a higher percentage of contracting use and those with a higher percentage of in-house delivery (i.e., a lower percentage of contracting use), focusing on the differences in the extreme cases.
For Model II, where I test moderating effects, this study runs the model with some variations in interaction terms. Before running the full model with the four-way interaction terms presented earlier (see Model II), I also run two shortened versions of the model with limited interaction terms. First, I run it with two-way interaction terms of managerial factors (i.e., staff expertise and task complexity), excluding other moderators related to vendor characteristics. Next, I include the two-way interaction terms of moderators related to vendor characteristics (i.e., incentive structure, shared values: WO, DO, and VO), in addition to those of managerial factors.

b) Qualitative Phase

As a supplement to this, I conducted four semi-structured interviews with six federal officials concerning the EEO discrimination complaint process and the use of contractors. The interviewees included senior officials working in EEO offices, with an average of 17 years of experience. All names and agency names are withheld for the sake of confidentiality. Agencies were sampled purposively to ensure a mix representing the following groups: 1) having a higher percentage of EEO contractors and 2) having a lower percentage of EEO contractors.

After identifying the agencies representing the different criteria, I contacted the agency EEO office representative, EEO director, EEO complaint managers or EEO staff by phone or email. When I made contact initially, I briefly described the purpose of the project and provided the expected time and other details about the interviews. If the potential interviewees agreed to schedule an interview, I set an appointment time. The informed consent letter and interview questionnaire (see Appendices B and C) were provided beforehand.
I conducted these semi-structured interviews by phone. These were expected to take up to 1 hour (60 minutes). At the beginning, I explained the purpose of the interview once again and gave a general introduction. Based on the interview protocol, the interviewees were asked about the details of the EEO discrimination complaint process, the characteristics of the EEO contractors' or/and (in-house) agency EEO employees, and about performance in EEO discrimination complaint processes (see more details in Appendix C). During the interviews, I collected the data by taking notes. The participants were indicated in the interview notes using agency name and position. For analysis, I mainly used hand-written notes and transcripts of the voice recordings (if applicable). Interviewee names and job titles were withheld, in order to protect participant identities.

4. Summary

This chapter has described the data, models and methods used to test the proposed hypotheses and answer the three research questions. In terms of data, it has indicated that the study mainly uses 2013-2016 Federal EEO Statistical Report of Discrimination Complaints (EEOC Form 462 reports) data, which is filed by federal agencies, combined with data from the Federal Procurement Data System (FPDS), the Federal Employee Viewpoint Survey (FEVS), and General Services Administration (GSA) price lists and websites. Finally, the sample includes 340 observations at agency level (85 federal agencies for each of the 4 years), with some variations applicable to each model. Using the datasets, I measured and operationalized dependent variables, independent variables, moderators, and control variables for the analyses.

For the model specifications, I suggested three different models to answer the research questions, with different specifications, based on the literature review. Model I was used to
answer research question 1, testing hypothesis 1, which suggests a non-directional relationship between contracting use and agency performance in DCP tasks, measured using timeliness as a proxy metric. Model II was used to answer research question 2, testing hypotheses 2 to 5, looking at which managerial, contextual factors and contract vendor characteristics affect contracting performance in DCP tasks. Model III was employed to answer research question 3, testing hypothesis 6, which proposes a positive relationship between contracting use and agency discrimination complaints.

After presenting all the models, this chapter discussed the methodology used in this study. For a quantitative phase, it uses fractional response GLM and OLS regression. For Models I and II, the fractional response GLM model is used. In Model III, the OLS model is used for the quantitative analysis. As a supplement to this, this study also conducts a limited number of semi-structured interviews with federal officials, for qualitative analysis. For the semi-structured interviews, the study uses a purposive sample of a mix of agencies representing the following groups: 1) having a higher percentage of EEO contractors and 2) having a lower percentage of EEO contractors.
Chapter V. Results

1. Introduction

This chapter provides results from the quantitative analysis to test the proposed hypotheses. As a supplement to this, the findings from the qualitative analysis are provided. This chapter tests three models, Models I, II, III, addressing each research question respectively: 1) Does contracting achieve better or worse performance in DCP tasks compared to in-house delivery? 2) Which managerial, contextual factors, and contract characteristics affect contracting performance in DCP tasks? 3) Do agencies using EEO contractors experience a higher or lower discrimination complaint rate?

After presenting descriptive statistics, the chapter analyzes the results from the quantitative analysis, using fractional response GLM and OLS regressions. In Model I, I test the link between contracting use and agency performance of DCP tasks measured for timeliness. Then, I analyze the results from Model II, testing the moderating effects of managerial factors and other situational factors related to contracting characteristics, by including interaction terms. Specifically, staff expertise and task complexity as agency managerial factors are examined; incentive structures and shared values (operationahalized in three different ownership types of contracting vendors—women-owned, minority-owned, and disadvantaged-owned) as situational factors related to contracting characteristics are analyzed. This chapter presents the results from Model III, testing the association between contracting and agency discrimination complaint rates. The findings from a limited number of semi-structured interviews with federal officials are provided as a supplement to the quantitative analyses.
2. Descriptive Statistics

Prior to estimating the models, the descriptive statistics of the study are presented in table V-1. In terms of dependent variables, the agencies complete approximately 66 percent of milestones in the discrimination complaint process on time, on average (SD= 0.177). Looking at the average number of days of investigation, contractors spend approximately 184 days on the entire investigation, while in-house agency employees take 87 days to complete it. Also, the mean value of agency discrimination complaints is 7 (SD= 5.523), measured using the standardized rate of complaints for 1000 employees. For example, if we assume that the total number of employees in an agency is 1000, about seven complaints are filed. Comparing the median value to the mean value, the distribution of agency discrimination complaints is right skewed.

Looking at the descriptive statistics of other variables, the percentage of contracting use in the EEO workforce (i.e., the percentage of EEO contractors out of total EEO staff) is roughly 50 percent (SD=33.88). This shows that the EEO workforce is quite balanced between (in-house) agency EEO employees and EEO contractors in federal agencies. Compared to the mean of contracting use, the median point is about 56 percent, which is higher than the mean. This indicates that the distribution is slightly left skewed. For staff expertise, the mean value is about 5 (SD= 0.364), which is quite high considering the maximum value of the variable is 6. This implies that the EEO workforce in federal agencies is overall receiving high amounts of training each year. According to the mean value of task complexity, the degree of task complexity in federal agencies is on average neither too high nor too low (Mean= 0.520, SD= 0.227). Also, the average proportion of contracting vendors using a case-based incentive structure is 0.73, which indicates that 73 percent of the total contracting vendors used in the discrimination complaint
process utilize a case-based incentive structure. For the three indicators of shared values, women-owned, small disadvantaged business-owned, and veteran-owned, it is worth pointing out that each indicator is coded as one versus zero (binary variables), specifying whether or not the agency utilizes at least one (or more) of the three types of contracting vendor. The descriptive statistics show that 80 percent of agencies have at least one (or more) women-owned contracting vendors; whereas about 35 percent of agencies use small disadvantaged-owned or veteran-owned vendors.

Table V-1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeliness</td>
<td>340</td>
<td>0.660</td>
<td>0.650</td>
<td>0.177</td>
<td>0.232</td>
<td>1</td>
</tr>
<tr>
<td>Discrimination Complaint</td>
<td>340</td>
<td>6.941</td>
<td>5.467</td>
<td>5.523</td>
<td>0</td>
<td>49.63</td>
</tr>
<tr>
<td>Contracting Use</td>
<td>340</td>
<td>49.333</td>
<td>55.903</td>
<td>33.876</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Staff Expertise</td>
<td>340</td>
<td>4.862</td>
<td>5</td>
<td>0.364</td>
<td>2.5</td>
<td>6</td>
</tr>
<tr>
<td>Task Complexity</td>
<td>340</td>
<td>0.520</td>
<td>0.5</td>
<td>0.227</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Incentive Structure</td>
<td>205</td>
<td>0.734</td>
<td>0.75</td>
<td>0.210</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Women-Owned</td>
<td>205</td>
<td>0.824</td>
<td>1</td>
<td>0.381</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Disadvantaged-Owned</td>
<td>205</td>
<td>0.337</td>
<td>0</td>
<td>0.474</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Veteran-Owned</td>
<td>205</td>
<td>0.366</td>
<td>0</td>
<td>0.483</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Independence of EEO Director</td>
<td>340</td>
<td>0.576</td>
<td>1</td>
<td>0.495</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Workforce (ln)</td>
<td>340</td>
<td>8.835</td>
<td>8.799</td>
<td>1.294</td>
<td>6.333</td>
<td>12.528</td>
</tr>
<tr>
<td>Diversity Climate</td>
<td>340</td>
<td>11.084</td>
<td>11.122</td>
<td>0.498</td>
<td>8</td>
<td>12.588</td>
</tr>
</tbody>
</table>
It is also worth mentioning that the observations are reduced to 205, which is an unbalanced panel dataset, when I drop the missing values of *Incentive Structure* and *Shared Values* variables. In other words, the dataset has 135 agency-year observations missing values indicating contracting vendor characteristics such as *Incentive Structure* and *Shared Values* operationalized in the three socio/economic indicators of contracting vendors (i.e., *Women-Owned, Disadvantaged-Owned, and Veteran-Owned*). This unbalanced panel data, having 205 observations, impacts Model II, where the *Incentive Structure* and *Shared Values* variables are included.

The correlation matrix offers preliminary snapshots of the association between continuous variables (see table V-2). Contracting use is significantly and negatively correlated with timeliness when completing milestones in DCP tasks. However, contracting use is positively correlated with agency discrimination complaints. When it comes to the correlations between each moderator and timeliness, there is a positive correlation between staff expertise and timeliness in completing tasks, whereas task complexity and incentive structure show no significant correlation with timeliness. It is worth pointing out that workforces have positive correlations with timeliness and discrimination complaints. Diversity climate has a significant and positive correlation with performance of DCP tasks but a negative correlation with discrimination complaints, which gives a sense of the potential effect of having a diversity climate on discrimination in federal agencies.
Table V-2. Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Timeliness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Discrimination</td>
<td>-0.0181</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complaint</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Contracting Use</td>
<td></td>
<td>0.2533*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Staff Expertise</td>
<td></td>
<td>0.0327</td>
<td>0.0998</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Task Complexity</td>
<td></td>
<td>0.0556</td>
<td>0.2073*</td>
<td>0.1419*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Incentive Structure</td>
<td></td>
<td>0.0100</td>
<td>0.0615</td>
<td>0.0698</td>
<td>-0.0060</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7) Workforce (ln)</td>
<td></td>
<td>-0.3780*</td>
<td>-0.3176*</td>
<td>-0.0105</td>
<td>-0.1733*</td>
<td>-0.0669</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8) Diversity Climate</td>
<td>0.2124*</td>
<td>-0.1227*</td>
<td>-0.0934</td>
<td>-0.0287</td>
<td>0.0420</td>
<td>-0.1521*</td>
<td>-0.1094*</td>
<td></td>
</tr>
</tbody>
</table>

Note: * p<0.05
3. Findings

1) Findings from Model I: The Link between Contracting Use and Performance in DCP Tasks (RQ 1)

In testing the hypothesis using the suggested models, the results of the fractional response GLM estimations presented in table V-3 indicate that agencies using more contracting for DCP tasks experience lower performance when measuring timeliness of completing these tasks. When contracting use is indicated as a continuous variable in Model I-1, there is a significant and negative relationship between contracting use and timeliness. If the percentage of contracting use for DCP tasks increases, the proportion of timely completed tasks decreases.

The results from Model I-2 give additional insights, allowing us to directly compare high and low contracting use agencies. The findings from the Model I-2 reveal that High Contracting Use agencies are less likely to have timely completed DCP tasks as compared to Low Contracting Use ones (see table V-3). Thus, the findings are consistent with the previous results from Model I-1, showing empirical evidence of the negative association between contracting use and agency performance of DCP tasks.

Besides the main effect of contracting use on timeliness, it is worth mentioning some significant effects of control variables. For example, staff expertise has a positive effect on agency performance of DCP tasks. This implies that agencies having a higher level of expertise in the EEO workforce are likely to have more timely completed tasks in the complaint procedure. In addition, workforce is negatively related to agency performance of DCP tasks, indicating that large agencies may have a slower service in the discrimination complaint process. It is also worth noting that there is no significant effect of independence of EEO director and diversity climate on performance of DCP tasks in terms of timeliness.
Table V-3. Fraction Response Generalized Linear Regression Results for Model I

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Model I-1</th>
<th>(2) Model I-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracting Use (Continuous)</td>
<td>-0.009**</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td></td>
</tr>
<tr>
<td>Low/Medium Contracting Use</td>
<td>-</td>
<td>-0.397**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.134)</td>
</tr>
<tr>
<td>Medium/High Contracting Use</td>
<td>-</td>
<td>-0.724**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.145)</td>
</tr>
<tr>
<td>High Contracting Use</td>
<td>-</td>
<td>-0.649**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.167)</td>
</tr>
<tr>
<td>Staff Expertise</td>
<td>0.261*</td>
<td>0.257*</td>
</tr>
<tr>
<td></td>
<td>(0.119)</td>
<td>(0.115)</td>
</tr>
<tr>
<td>Task Complexity</td>
<td>0.081</td>
<td>0.047</td>
</tr>
<tr>
<td></td>
<td>(0.211)</td>
<td>(0.213)</td>
</tr>
<tr>
<td>Independence of EEO Director</td>
<td>-0.156</td>
<td>-0.142</td>
</tr>
<tr>
<td></td>
<td>(0.101)</td>
<td>(0.101)</td>
</tr>
<tr>
<td>Workforce (ln)</td>
<td>-0.118*</td>
<td>-0.099*</td>
</tr>
<tr>
<td></td>
<td>(0.048)</td>
<td>(0.050)</td>
</tr>
<tr>
<td>Diversity Climate</td>
<td>0.074</td>
<td>0.098</td>
</tr>
<tr>
<td></td>
<td>(0.109)</td>
<td>(0.112)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.221</td>
<td>-0.631</td>
</tr>
<tr>
<td></td>
<td>(1.382)</td>
<td>(1.400)</td>
</tr>
<tr>
<td>Observations</td>
<td>340</td>
<td>340</td>
</tr>
</tbody>
</table>

Note: Unstandardized coefficients are reported. ** p<0.01, * p<0.05, † p<0.1. Robust standard errors are in parentheses. The reference group for Contracting Use variable is Category 0: Low. Agency missions, contracting vendors, and years are controlled in the regression model but not reported.
Table V-4 reports the marginal effects from the fractional response GLM estimations, which offer more substantial findings. The marginal effects indicate that a one-unit increase of contracting use (i.e., one percentage point) decreases 0.2 percentage points in timeliness of completing DCP tasks at the mean values of all predictors (see table V-4). In other words, a ten-percentage point increase in contracting use will result in about a two-percentage point decrease in timely completed DCP tasks. Focusing on extreme cases, the marginal effects from Model II indicate that agencies that use contractors at the highest rates decrease the probability of having timely completed tasks (i.e., timeliness) by approximately fourteen percentage points, compared to the reference group agencies that use contractors at the lowest rates.

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Model I-1</th>
<th>Model I-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracting Use (Continuous)</td>
<td>-0.0020</td>
<td>-0.0020</td>
</tr>
<tr>
<td>Low/Medium Contracting Use</td>
<td>-0.0798</td>
<td>-0.0798</td>
</tr>
<tr>
<td>Medium/High Contracting Use</td>
<td>-0.1549</td>
<td>-0.1549</td>
</tr>
<tr>
<td>High Contracting Use</td>
<td>-0.1370</td>
<td>-0.1370</td>
</tr>
<tr>
<td>Staff Expertise</td>
<td>0.0576</td>
<td>0.0576</td>
</tr>
<tr>
<td>Task Complexity</td>
<td>0.0178</td>
<td>0.0178</td>
</tr>
<tr>
<td>Independence of EEO Director</td>
<td>-0.0345</td>
<td>-0.0345</td>
</tr>
<tr>
<td>Workforce (ln)</td>
<td>-0.0262</td>
<td>-0.0262</td>
</tr>
<tr>
<td>Diversity Climate</td>
<td>0.0163</td>
<td>0.0163</td>
</tr>
</tbody>
</table>

Note: dy/dx for factor levels is the discrete change from the base level.
2) **Findings from Model II: Moderating Effects on Contracting Performance in DCP Tasks (RQ 2)**

Next, table V-5 presents the results of the fractional response GLM estimations from Model II. As discussed earlier, I test the moderating effects by running the models with some variations in interaction terms, as a supplement to the full model with four-way interaction terms. In Model II-1, I only test the moderating effects of two managerial factors (i.e., staff expertise and task complexity) on the link between contracting use and performance in DCP tasks, excluding other vendor characteristics. Model II-2 includes two-way interaction terms of other vendor characteristics, such as incentive structure and shared values, in three ways 1) women-owned (WO), 2) disadvantaged-owned (DO) and 3) veteran-owned (VO), in addition to managerial factors. In Model II-3, which is the main model, I test the moderating effects of all moderators by controlling three-way and four-way interaction terms. The main findings from Model II-3 are presented along with other supplementary findings from Models II-1 and II-2 (see table V-5).

**Staff Expertise.** According to the results from Model II-3, the findings show that there is no significant moderating effect of staff expertise on the relationship between contracting use and performance of DCP tasks measured for timeliness (see table V-5). Thus, hypothesis 2 is not supported. This insignificant result is consistent with the findings from Models II-1 and 2 as well. The findings of the study do not provide empirical evidence that when agencies have staff with a higher level of expertise, they are more likely to perform better in DCP tasks in terms of timeliness. Besides, it is interesting to see that a direct effect of staff expertise on performance of DCP tasks is no longer significant in Model II. In the previous findings from Model I, where staff expertise is included as a control variable, there is a positive direct effect of staff expertise
on performance of DCP tasks in terms of timeliness, at a significance level of 0.05. However, when I include the other variables related to vendor characteristics and the interaction terms of moderators in Model II, the direct effect of staff expertise turns out to be insignificant.
Table V-5. Fraction Response Generalized Linear Regression Results for Model II

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Model II-1</th>
<th>Coef.</th>
<th>SE</th>
<th>(2) Model II-2</th>
<th>Coef.</th>
<th>SE</th>
<th>(3) Model II-3</th>
<th>Coef.</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracting Use</td>
<td></td>
<td>0.016</td>
<td>(0.029)</td>
<td></td>
<td>0.006</td>
<td>(0.031)</td>
<td></td>
<td>-0.036</td>
<td>(0.035)</td>
</tr>
<tr>
<td>Staff Expertise</td>
<td></td>
<td>0.326</td>
<td>(0.343)</td>
<td></td>
<td>0.425*</td>
<td>(0.345)</td>
<td></td>
<td>-0.010</td>
<td>(0.399)</td>
</tr>
<tr>
<td>Task Complexity</td>
<td></td>
<td>1.221*</td>
<td>(0.594)</td>
<td></td>
<td>1.150*</td>
<td>(0.574)</td>
<td></td>
<td>1.360*</td>
<td>(0.620)</td>
</tr>
<tr>
<td>Incentive Structure</td>
<td></td>
<td>0.069</td>
<td>(0.263)</td>
<td>-0.861</td>
<td></td>
<td>(0.625)</td>
<td></td>
<td>-1.349*</td>
<td>(0.680)</td>
</tr>
<tr>
<td>Women-Owned (WO)</td>
<td></td>
<td>-0.074</td>
<td>(0.140)</td>
<td>-0.321</td>
<td></td>
<td>(0.387)</td>
<td></td>
<td>-0.677</td>
<td>(0.579)</td>
</tr>
<tr>
<td>Disadvantaged-Owned (DO)</td>
<td></td>
<td>-0.038</td>
<td>(0.123)</td>
<td>-0.146</td>
<td></td>
<td>(0.259)</td>
<td></td>
<td>-4.331**</td>
<td>(1.097)</td>
</tr>
<tr>
<td>Veteran-Owned (VO)</td>
<td></td>
<td>-0.038</td>
<td>(0.122)</td>
<td>-0.396</td>
<td></td>
<td>(0.283)</td>
<td></td>
<td>-0.790</td>
<td>(0.883)</td>
</tr>
</tbody>
</table>

* Interaction Effects

Two-Way Interaction Effects

<table>
<thead>
<tr>
<th></th>
<th>Coef.</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cont.*Staff Expertise</td>
<td>-0.002</td>
<td>(0.006)</td>
</tr>
<tr>
<td>Cont.*Task Complexity</td>
<td>-0.019*</td>
<td>(0.010)</td>
</tr>
<tr>
<td>Cont.*Incentive Structure</td>
<td>0.017†</td>
<td>(0.010)</td>
</tr>
<tr>
<td>Cont.*WO</td>
<td>0.004</td>
<td>(0.006)</td>
</tr>
<tr>
<td>Cont.*DO</td>
<td>0.002</td>
<td>(0.004)</td>
</tr>
<tr>
<td>Cont.*VO</td>
<td>0.006</td>
<td>(0.005)</td>
</tr>
<tr>
<td>WO*DO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WO*VO</td>
<td>0.456</td>
<td>(0.992)</td>
</tr>
<tr>
<td>DO*VO</td>
<td>2.442†</td>
<td>(1.262)</td>
</tr>
</tbody>
</table>

Three-Way Interaction Effects

<table>
<thead>
<tr>
<th></th>
<th>Coef.</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cont.* WO* DO</td>
<td>-0.058**</td>
<td>(0.014)</td>
</tr>
<tr>
<td>Cont.* WO* VO</td>
<td>-0.019</td>
<td>(0.016)</td>
</tr>
<tr>
<td>Cont.* DO* VO</td>
<td>-0.044*</td>
<td>(0.018)</td>
</tr>
<tr>
<td>WO* DO* VO</td>
<td>-2.070</td>
<td>(1.474)</td>
</tr>
</tbody>
</table>

Four-Way Interaction Effects

<table>
<thead>
<tr>
<th></th>
<th>Coef.</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cont.<em>WO</em> DO* VO</td>
<td>0.037†</td>
<td>(0.021)</td>
</tr>
<tr>
<td></td>
<td>205</td>
<td>205</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Independence of EEO Director</td>
<td>0.149</td>
<td>(0.127)</td>
</tr>
<tr>
<td>Workforce (ln)</td>
<td>-0.074</td>
<td>(0.052)</td>
</tr>
<tr>
<td>Diversity Climate</td>
<td>0.263</td>
<td>(0.162)</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.971</td>
<td>(2.796)</td>
</tr>
<tr>
<td>Observations</td>
<td>205</td>
<td>205</td>
</tr>
</tbody>
</table>

Note: Unstandardized coefficients are reported. ** p<0.01, * p<0.05, † p<0.1. Robust standard errors are in parentheses. Agency missions, contracting vendors, and years are controlled in the regression model but not reported.
Task Complexity. When it comes to the moderating effect of task complexity, the findings offer evidence that task complexity negatively moderates the association between contracting use and performance of DCP tasks, supporting hypothesis 3. In particular, according to the results from Model II-3, the coefficient of the interaction term of contracting use and task complexity is negative and significant at a 0.05 significance level. This indicates that the association between contracting use and performance of DCP tasks becomes more negative when tasks are more complicated.

To elaborate on the interaction effects, I compute the slopes for timeliness of contracting by using the value of moderators shown as a statistically significant constant. As shown in figure V-1, the plotting shows the predictive marginal effects of contracting on timeliness, while holding task complexity is constant at the selected values (at=0, 0.5, and 1). Figure V-1 shows that the association between contracting use and agency performance of DCP tasks turns out to be negative, as the agencies have more complicated tasks. Specifically, the slope of the line shows that there is a positive marginal effect of contracting on timeliness, when the level of task complexity is zero. However, as tasks get more complex, the effects of contracting on timeliness become negative (see the lines of task complexity = .5 and 1 in figure V-1). Linking this back to the literature, the results are consistent with the concerns brought up from contracting theories when complex tasks are contracted out. These theories have warned that contracting complex tasks may not be a good idea, because the high level of complexity makes it difficult to specify performance measures for tasks, and thereby to hold contractors accountable for their performance. This study provides empirical evidence that it may not be beneficial for governments to contract complicated tasks.
Incentive Structure. Next, the results find a positive moderating effect of a case-based incentive structure on the link between contracting use and performance of DCP tasks. Therefore, hypothesis 4 is supported. Taking operationalization into account, this positive effect shows that there is a more positive association between contracting and performance of DCP tasks when an agency has a higher proportion of contracting vendors with a case-based incentive structure. Specifically, the positive moderating effect turns out to be more significant in Model II-3 at a significance level of 0.05, compared to the results in Model II-2. This implies that the significance of the positive moderating effects of case-based incentive structures stands out more when potential joint effects among the variables are controlled.

Figure V-2 shows the significant interaction effects on contracting, with slopes for timeliness, holding the value of incentive structures constant. In detail, the plotting depicts the
predictive marginal effects of contracting on timeliness, while holding incentive structures constant at selected values (at=0, 0.5, and 1). Looking at the lines in figure V-2, there is a negative marginal effect of contracting on timeliness when an agency only uses contracting vendors with a time-based incentive structure (i.e., the value of incentive structure (case-based) is zero). However, if an agency has a higher proportion of contracting vendors in a case-based incentive structure, the negative effect of contracting on timeliness becomes smaller, or the effect of contracting on timeliness becomes positive (see the lines of incentive (case-based) =.5 and 1 in figure V-2).

Figure V-2. Interaction Effect of Incentive Structure (Case-Based)

In particular, the positive slope of marginal lines holding the value of incentive structure equal to 1 highlights that an increase in contracting use is associated with an increase in timely
completed DCP tasks, when agencies only use contracting vendors with case-based incentives. On the contrary, the findings suggest that an increase in contracting use decreases performance of DCP tasks, especially when an agency utilizes vendors with time-based incentives. This positive interaction effect of case-based incentive structures echoes arguments from incentive theories, suggesting that incentive structures in contracts positively influence contractors’ behavior. That is, contractors with time-based incentives are likely to spend more time completing cases for their own profit, while contractors with case-based incentives are incentivized to complete the cases in a timely manner.

**Shared Norms and Values.** With respect to shared norms and values, this study assumes that some vendors that are owned by individuals from socially/economically underrepresented groups are likely to have a better understanding of DCP values and tasks, demonstrating a higher level of shared norms and values compared to other vendors that are not. Thus, using the three socio-economic indicators of contracting vendors categorized by the GSA, this study operationalizes shared norms and values in three separate binary variables. Each binary variable respectively indicates whether or not an agency has at least one (or more) contracting vendor(s) indicated as 1) Women-Owned (WO), 2) SBA Certified Small Disadvantaged-Owned (DO) and 3) Veteran-Owned (VO) (Not-owned=0; Owned=1).

The findings indicate that there are somewhat mixed moderating effects of shared norms and values (see the results of Model II-3 in table V-5). To begin with a significant moderating effect, the results reveal that agencies are more likely to have timely completed tasks when using more contracting when they utilize DO contracting vendors, showing a positive moderating effect of having DO contracting vendors. Therefore, the results support hypothesis 5b. Also, figure V-3 depicts the results of the average marginal effects, showing amount of change in
timeliness with a one-unit change in contracting, depending on whether or not an agency uses at least one or more DO vendors. This highlights that using vendors which possess shared values and norms, especially indicated as DO vendors, expedites the complaint process when agencies use more contractors. However, regarding other binary variables representing shared norms and values, indicated as WO or VO, I find no significant moderating effects, therefore hypotheses 5a and 5b are not supported. Taken together, the results point out that the effect of contracting use on agency performance of DCP tasks becomes positive when an agency has at least one or more DO contracting vendors assumed to have shared norms and values in DCP tasks. Otherwise, when an agency has no use of DO vendors, an increase of contracting use decreases performance of DCP tasks measured for timeliness.

Figure V-3. Interaction Effect of Disadvantaged-Owned Contracting Vendors
Figure V-4. Interaction Effect of WO*DO

Figure V-5. Interaction Effect of DO*VO
In addition to these principal moderating effects, it is worth mentioning significant estimates of other interaction terms. One thing apparent here is that the coefficients of the three-way interaction terms of Contracting*WO*DO and Contracting*DO*VO in Model II-3 are both significantly negative. It seems that these effects result from the significant moderating effect of having DO vendors. Figure V-4 and Figure V-5 illustrate the three-way interaction effects of Contracting*WO*DO and Contracting*DO*VO respectively. In both figures, the slope of the lines indicates that having DO vendors has a greater moderating effect, especially when agencies have no WO or VO vendors (see the lines of WO=0, DO=0 and of WO=0, DO=1 in figure V-4; the lines of DO=0, VO=0 and DO=1, VO=0 in figure V-5). To put it another way, if agencies utilize at least one or more women-owned or/and veteran owned contracting vendors for the discrimination complaint procedure, using small business disadvantaged-owned vendors may not result in a greatly positive impact on the link between contracting use and the timeliness of the procedure. If agencies do not have women-owned or veteran-owned vendors, however, they show a positive link between contracting use and timeliness when utilizing disadvantaged-owned vendors. This shows that using vendors which possess shared values and norms, especially indicated as disadvantaged-owned vendors, expedites the complaint process, as agencies use more contractors, especially when other socially/economically underrepresented vendors (i.e., women- and veteran-owned) do not exist. There is a potential concern when interpreting other three-way or four-way interactions in Model II-3, especially including all vendor types (WO*DO*VO), due to a small sample size. Thus, I should be cautious in interpreting those interactions but consider including the interaction terms (i.e., WO*DO*VO and Cont.*WO*DO*VO) in the model as a way of controlling other potential interactions.
For the control variables, there are some variables that show a significant relationship with performance of DCP tasks. The results indicate that diversity climate is marginally and positively associated with performance of DCP tasks in terms of timeliness (at the significance level 0.1). *Workforce (ln)* and *Independence of EEO Director* still have no significant effect. This does not provide sufficient empirical evidence that the size of the agency and/or directly reporting to the EEO director affects agency performance with regard to timely completed tasks.

As robustness checks, I also ran the same models, only with balanced panel data. Table V-6 presents the results from Model II with 148 observations. Most of the previous findings remain consistent in the results when using a balanced panel. Staff expertise has no significant moderating effect, whereas task complexity and incentive structure have significant and positive moderating effects (see Model II-3 in Table V-6). When it comes to shared values, having a DO vendor is a significant and positive moderator, which echoes the main findings.
Table V-6. Robustness Checks for Model II: Using Balanced Panel

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Model II-1</th>
<th></th>
<th>(2) Model II-2</th>
<th></th>
<th>(3) Model II-3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>SE</td>
<td>Coef.</td>
<td>SE</td>
<td>Coef.</td>
<td>SE</td>
</tr>
<tr>
<td>Contracting Use</td>
<td>0.010</td>
<td>(0.045)</td>
<td>-0.071</td>
<td>(0.056)</td>
<td>-0.053</td>
<td>(0.060)</td>
</tr>
<tr>
<td>Staff Expertise</td>
<td>0.082</td>
<td>(0.658)</td>
<td>-0.456</td>
<td>(0.677)</td>
<td>-0.347</td>
<td>(0.734)</td>
</tr>
<tr>
<td>Task Complexity</td>
<td>0.929</td>
<td>(0.826)</td>
<td>1.116</td>
<td>(0.831)</td>
<td>1.460†</td>
<td>(0.858)</td>
</tr>
<tr>
<td>Incentive Structure</td>
<td>-0.393</td>
<td>(0.454)</td>
<td>-4.289**</td>
<td>(1.285)</td>
<td>-4.663**</td>
<td>(1.355)</td>
</tr>
<tr>
<td>Women-Owned (WO)</td>
<td>-0.081</td>
<td>(0.182)</td>
<td>0.400</td>
<td>(0.546)</td>
<td>0.921</td>
<td>(0.624)</td>
</tr>
<tr>
<td>Disadvantaged-Owned (DO)</td>
<td>-0.111</td>
<td>(0.185)</td>
<td>-0.276</td>
<td>(0.336)</td>
<td>-3.521*</td>
<td>(1.633)</td>
</tr>
<tr>
<td>Veteran-Owned (VO)</td>
<td>0.022</td>
<td>(0.175)</td>
<td>0.283</td>
<td>(0.427)</td>
<td>3.953**</td>
<td>(1.475)</td>
</tr>
</tbody>
</table>

**Interaction Effects**

<table>
<thead>
<tr>
<th>Two-Way Interaction Effects</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cont.*Staff Expertise</td>
<td>-0.001</td>
<td>(0.009)</td>
<td>0.007</td>
<td>(0.010)</td>
<td>0.004</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Cont.*Task Complexity</td>
<td>-0.016</td>
<td>(0.013)</td>
<td>-0.021†</td>
<td>(0.013)</td>
<td>-0.029*</td>
<td>(0.013)</td>
</tr>
<tr>
<td>Cont.*Incentive Structure</td>
<td>0.066**</td>
<td>(0.018)</td>
<td>0.071**</td>
<td>(0.019)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cont.*WO</td>
<td>-0.006</td>
<td>(0.009)</td>
<td>-0.009</td>
<td>(0.010)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cont.*DO</td>
<td>0.005</td>
<td>(0.005)</td>
<td>0.049*</td>
<td>(0.020)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cont.*VO</td>
<td>-0.006</td>
<td>(0.006)</td>
<td>-0.037†</td>
<td>(0.020)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WO* DO</td>
<td></td>
<td></td>
<td>3.290*</td>
<td>(1.562)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WO* VO</td>
<td></td>
<td></td>
<td>-3.992*</td>
<td>(1.631)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DO* VO</td>
<td></td>
<td></td>
<td>1.761</td>
<td>(2.058)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Three-Way Interaction Effects    |                      |          |                      |          |                      |          |
| Cont.* WO* DO                   | -0.043*              | (0.020) |                      |          |                      |          |
| Cont.* WO* VO                   |                      |          | 0.033                | (0.022) |                      |          |
| Cont.* DO* VO                   |                      |          | -0.043†              | (0.025) |                      |          |
| WO* DO* VO                      |                      |          | -1.912               | (2.371) |                      |          |

<p>| Four-Way Interaction Effects     |                      |          |                      |          |                      |          |
| Cont.<em>WO</em> DO* VO                | 0.044                | (0.031) |                      |          |                      |          |</p>
<table>
<thead>
<tr>
<th></th>
<th>Coefficient 1</th>
<th>Coefficient 2</th>
<th>Coefficient 3</th>
<th>Coefficient 4</th>
<th>Coefficient 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independence of EEO Director</td>
<td>0.307†</td>
<td>0.307†</td>
<td>0.301†</td>
<td>0.301†</td>
<td>0.217</td>
</tr>
<tr>
<td>Workforce (In)</td>
<td>-0.073</td>
<td>-0.075</td>
<td>-0.075</td>
<td>-0.075</td>
<td>-0.108</td>
</tr>
<tr>
<td>Diversity Climate</td>
<td>0.304</td>
<td>0.313†</td>
<td>0.313†</td>
<td>0.313†</td>
<td>0.228</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.025</td>
<td>1.968</td>
<td>1.968</td>
<td>1.968</td>
<td>2.287</td>
</tr>
<tr>
<td>Observations</td>
<td>148</td>
<td>148</td>
<td>148</td>
<td>148</td>
<td></td>
</tr>
</tbody>
</table>

Note: Unstandardized coefficients are reported. ** p<0.01, * p<0.05, † p<0.1. Robust standard errors are in parentheses. Agency missions, contracting vendors, and years are controlled in the regression model but not reported.
3) Findings from Model III: The Link between Contracting Use and EEO Discrimination Complaint Rate (RQ 3)

To test the link between contracting and discrimination complaint rate, table V-7 provides the OLS regression estimations from Model III. In Model III-1, where contracting use is a continuous variable, the findings provide evidence that contracting use in DCP tasks is positively associated with agency discrimination complaint rate, supporting hypothesis 6. In detail, a one-unit change in contracting use (i.e., one percentage point of contracting use) is related to an increase of 0.019 points in discrimination complaint rate (per 1000 employees), when holding other variables constant. In other words, if agencies increase the rate of contracting use in the discrimination complaint process by ten percentage points, the EEO discrimination complaint rate will increase approximately by 0.2 points in the discrimination complaint rate (per 1000 employees). Figure V-6 presents the predicted values of discrimination complaint by contracting use with confidence intervals (CIs).

Table V-7. OLS Regression Results for Model III

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model III-1</td>
<td>Model III-2</td>
</tr>
<tr>
<td>Contracting Use (Continuous)</td>
<td>0.019*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>-</td>
</tr>
<tr>
<td>Low/Medium Contracting Use</td>
<td>-</td>
<td>1.195*</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>(0.555)</td>
</tr>
<tr>
<td>Medium/High Contracting Use</td>
<td>-</td>
<td>0.520</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>(0.553)</td>
</tr>
<tr>
<td>High Contracting Use</td>
<td>-</td>
<td>2.655**</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>(1.012)</td>
</tr>
<tr>
<td>Independence of EEO</td>
<td>-0.869</td>
<td>-0.785</td>
</tr>
<tr>
<td>Category</td>
<td>Coefficient 1</td>
<td>Coefficient 2</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Director</td>
<td>(0.535)</td>
<td>(0.529)</td>
</tr>
<tr>
<td>Workforce (ln)</td>
<td>-1.483**</td>
<td>-1.355**</td>
</tr>
<tr>
<td>Diversity Climate</td>
<td>-1.795**</td>
<td>-1.797**</td>
</tr>
<tr>
<td>Financial Regulation</td>
<td>3.744</td>
<td>3.531</td>
</tr>
<tr>
<td>Science and Research</td>
<td>-0.055</td>
<td>0.304</td>
</tr>
<tr>
<td>Energy and Environment</td>
<td>-1.094†</td>
<td>-1.073†</td>
</tr>
<tr>
<td>Public Health</td>
<td>-0.174</td>
<td>-0.417</td>
</tr>
<tr>
<td>Economic Development</td>
<td>-0.031</td>
<td>-0.337</td>
</tr>
<tr>
<td>Oversight</td>
<td>4.782*</td>
<td>4.575*</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>2.676**</td>
<td>2.758**</td>
</tr>
<tr>
<td>Social Support</td>
<td>0.900</td>
<td>0.721</td>
</tr>
<tr>
<td>National Security</td>
<td>1.043</td>
<td>0.680</td>
</tr>
<tr>
<td>Constant</td>
<td>37.88**</td>
<td>36.72**</td>
</tr>
</tbody>
</table>

Observations: 340
Adjusted R-squared: 0.246

Note: Unstandardized coefficients are reported. ** p<0.01, * p<0.05, † p<0.1. Robust standard errors are in parentheses. The reference group for the Contracting Use variable is Category 0: Low. The reference group for Agency Missions variable is All Other Agencies. Contracting vendors and years are controlled in the regression model but not reported.
The positive link between contracting and discrimination complaint rate is also consistent and even seems to be stronger, particularly when looking at extreme cases (e.g., low vs. high contracting use agencies). The results from Model III-2, where contracting use is indicated as a categorical variable, show that the discrimination complaint rate of high contracting use agencies is approximately 2.7 percentage points higher than in low contracting use agencies (see table V-7).

Among the control variables, it is worth mentioning that workforce (ln) and diversity climate have a negative relationship with discrimination complaint rate. This implies that an agency is likely to have a lower discrimination complaint rate, when the agency has a larger size and diverse climate. In addition, some agency mission types present significant associations with
discrimination complaint rate. Compared to the reference group (i.e., all other agencies), agencies that have their missions in oversight or law enforcement missions are likely to have a higher complaint rate. Interestingly, the results show that independence of EEO director is not significantly related to agency discrimination complaint rate in both Models III-1 and III-2.

In addition to the quantitative findings, EEO officials from the semi-structured interview shed more light on the link between contracting use and agency discrimination complaints. Interviewees imply the positive influence of having EEO contractors on potential complainants’ reporting behavior, which can be a potential explanation of why there is a positive association between contracting use and agency discrimination complaints in the quantitative analysis. An interviewee mentioned that “some employees care” about whether or not EEO contractors are available and they are more likely to feel comfortable working with EEO contractors on their discrimination. An employee may feel more comfortable contacting an EEO contractor rather than an in-house agency EEO employee, especially when they want to avoid conflicts of interest or partial processing.

One interviewee gave more specific examples of cases where complainants may be concerned about the impartiality of the process. For instance, “if a complainant sees their in-house EEO counselor or investigator having coffee with an individual who is accused of discrimination, they might feel uncomfortable and question the objectivity of the process.” Also, an interviewee stated that, “even if this is not usually the case, there might be a possibility that in-house EEO staff build connections with someone who is alleged to be involved in discrimination conduct,” something which is more likely to occur in small agencies. Therefore, sometimes the aggrieved or complainants prefer talking to contractors anonymously if they feel that the EEO office is not neutral, or they are strongly pursuing a secure and impartial process. It
is also worth noting that one agency particularly noted that employees are explicitly told during non-discrimination training that contractors are involved in the complaint review process, while another agency noted that employees are not explicitly told this.

It is also possible that whether or not EEO contractors are available is largely invisible to clients (i.e., the aggrieved or complainants) in large agencies. For example, an interviewee suggested that employees might feel uncomfortable sending their allegations to contractors’ email addresses if they are not official government email domains. If it is a sensitive issue, employees might prefer communicating with EEO staff through official government email domains. Thus, in such circumstances, it is hard to tell if employees have a preference, or if they feel more comfortable talking to EEO contractors. Overall, this partly explains why the existence of EEO contractors has a positive relationship with the behavior of the aggrieved who may want to file a complaint.

4. **Summary**

In summary, the main findings from the quantitative analysis offer empirical evidence on 1) the link between contracting use and agency performance of DCP tasks, 2) staff expertise, task complexity, interview structure, and shared norms and values as important factors that affect contracting performance of DCP tasks, and 3) the association between contracting use and discrimination complaint rate. Table V-8 summarizes the hypotheses suggested and the results of the hypotheses testing.

In Model I, the results show that contracting use has a positive relationship with agency performance of DCP tasks measured for timeliness. According to the results in Model II, task complexity significantly and negatively moderates the association between contracting use and
performance of DCP tasks. However, the moderating effects of staff expertise turn out to be insignificant. Also, this study tests the moderating effects of other contractor characteristics, including incentive structure and shared norms and values. The results provide empirical evidence that case-based incentive structures have a positive moderating effect on the link between contracting use and performance of DCP tasks. Focusing on three different types of socio-economic indicators of contracting vendors, women-owned, small disadvantaged business-owned and veteran owned, this dissertation offers mixed findings on the moderating effect of shared values. The findings suggest that the link between contracting use and agency performance of DCP tasks is significantly and positively moderated by the use of small disadvantaged business-owned contracting vendors, while there are no significant moderating effects when using women-owned and veteran-owned vendors.

Finally, Model III tests the link between contracting use and agency discrimination complaint rates. The results from the quantitative analysis find that contracting use in DCP tasks is positively associated with discrimination complaint rate. The qualitative findings from the semi-structured interviews are provided as a supplement to the quantitative findings. In terms of the link between contracting use and discrimination complaints, the qualitative analysis explains why the existence of EEO contractors positively affects the behavior of the aggrieved who want to file a complaint. The aggrieved or complainants may feel more comfortable contacting EEO contractors for discrimination complaints for impartial processing, although there are some cases where the aggrieved does not care, or may be concerned about confidentiality when speaking with EEO contractors.
Table V-8. Summary of Hypotheses Testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Contracting use in DCP tasks will be <em>either positively or negatively</em> associated with agency performance of DCP tasks measured in timeliness.</td>
<td>Negative Relationship</td>
</tr>
<tr>
<td>H2: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by staff expertise.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3: The relationship between contracting use in DCP tasks and agency performance of the tasks will be negatively moderated by task complexity.</td>
<td>Supported</td>
</tr>
<tr>
<td>H4: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by a case-based incentive structure.</td>
<td>Supported</td>
</tr>
<tr>
<td>H5a: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by women-owned contracting vendors having shared norms and values.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5b: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by small disadvantaged business-owned contracting vendors having shared norms and values.</td>
<td>Supported</td>
</tr>
<tr>
<td>H5c: The relationship between contracting use in DCP tasks and agency performance of the tasks will be positively moderated by veteran-owned contracting vendors having shared norms and values.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H6: Contracting use in DCP tasks will be positively associated with agency discrimination complaint rate.</td>
<td>Supported</td>
</tr>
</tbody>
</table>
Chapter VI. Discussion

1. Introduction

This chapter will further discuss the findings from the quantitative and qualitative analysis. Returning to the dissertation’s research questions, this study investigates the dynamics of contracting use in DCP tasks, with a particular focus on the following: 1) the relationship between contracting use and agency performance of DCP tasks, 2) managerial, contextual factors, and contract characteristics that affect contracting performance of DCP tasks, and 3) the link between contracting use and discrimination complaint rate.

Using fractional response GLM and OLS regression models, the results from the quantitative models demonstrate that contracting use has a negative association with agency performance of DCP tasks measured for timeliness. Also, the findings offer empirical evidence that having a higher level of task complexity exacerbates the negative effect of contracting use on performance of DCP tasks. Using vendors with a case-based incentive structure and indicated as being small disadvantaged businesses positively moderates the link between contracting and performance of DCP tasks. As a supplement to the quantitative findings, the results from the semi-structured interviews give more nuanced stories and insights from federal officials in the EEO office, which deepen our understanding of the dynamics of contracting use in the discrimination complaint procedure.

Based on the results from the quantitative and qualitative analysis, this chapter presents its main implications, both for theory and practice. It begins with four implications and contributions to the literature. Linking back to the literature, I account for the empirical evidence from the results and explain why some findings support or are at odds with theories and previous findings. Next, practical implications are suggested, indicating how the results can be important
for practitioners; then, the limitations of the study and future ideas it suggests will be discussed. As a conclusion, I summarize the dissertation, pointing out the main takeaway messages of the study.

2. Implications for Theory

This dissertation offers four important implications and contributions to the literature on contracting performance for complex services. First, it contributes to this scholarship by integrating the literature on performance measurement in DCP tasks into the contracting theories. While most previous studies have examined contracting cases for traditional services and products that are relatively easily measured and mission-based, they have not fully explored other cases of contracting, such as contracting for services that are mission extrinsic and difficult to assess. In this sense, it is worthwhile to analyze contracting performance in EEO discrimination complaint procedures that are non-mission-based, and DCP tasks that promote equity and fairness. More importantly, this study sheds light on the measurement issues that scholars have raised, using proxy or alternative metrics to assess performance in DCP tasks that are difficult to directly measure. As many scholars such as Piotrowski and Rosenbloom have argued, DCP values and tasks should be measured in order to make agencies pay more attention to these values in an era of performance regimes. This is also consistent with Radin and Frederickson’s points, highlighting the integration of DCP values (i.e., social equity) in addition to managerial values (i.e., efficiency and effectiveness) into performance management. The results of the study offer evidence for this point, measuring contracting performance for timeliness in completing specific milestones that must be met to accomplish mission-extrinsic and DCP values.
Second, this study tests competing logics and provides empirical evidence of the relationship between contracting use and performance in DCP tasks that are mission extrinsic and not easily measured. The findings are consistent with concerns that previous studies have raised, confirming that managing contracting performance of DCP tasks is demanding. This implies that contractors might not properly consider completing their case or job in a timely manner, although regulations require them to do so. Also, compared to in-house agency EEO employees, it is possible that contractors are less likely to value equity and non-discrimination in the workforce. As a result, the negative relationship between contracting use and performance of DCP tasks reaffirms the argument that contracting out for complex tasks may not be effective, due to a higher risk of principal-agent problems (Brown et al., 2006). However, this does not necessarily mean that agencies should not hire more contractors for the tasks. Rather, the study suggests that it is important to have effective management strategies that hold contractors accountable for their performance in DCP tasks, which is consistent with previous contracting studies (Romzek & Johnston, 2002; Yang, Hsieh, & Li, 2009).

Third, drawing on the perspectives of contracting theories, this study provides empirical evidence that task complexity as a managerial/contextual factor, and incentive structure and shared values as other situational factors, have an effect on contracting performance in DCP tasks. Referring back to the literature review on government contracting, public choice theory suggests that managerial and contextual factors need to be considered for effective government contracting. Among managerial and contextual factors, this dissertation particularly tests the moderating effects of staff expertise and task complexity. In addition to these, it tests the moderating effects of contracting vendor characteristics suggested by contracting theories and previous studies. Principal-agent and incentive theories highlight the role of incentive structures
holding contractors accountable for their performance. Also, stewardship theory argues that shared values between two actors can enhance contracting performance. Thus, I test the moderating effects of these factors: staff expertise, task complexity, incentive structures, and shared values, operationalized in three types of vendor ownership. The results yield mixed support for the hypothesized propositions, and the specific implications for each factor are as follows.

**Staff Expertise.** The results do not provide empirical evidence that staff expertise positively moderates the link between contracting use and performance of DCP tasks. Based on contracting theories and previous studies, it is important to have public managers and employees who are skilled at handling the contracted tasks. The insignificant results may be explained by the fact that the level of EEO staff (both in-house agency employees and contractors) expertise is quite high. As noted in the descriptive statistics, the mean value of staff expertise is approximately 5, which is very high considering the maximum value is 6 (see details in Table V-1). Because the EEO staff in the study have a relatively high level of expertise, the moderating effect of staff expertise may not remain statistically significant. Further, considering the fact that dealing with discrimination complaint cases calls on a high level of knowledge and an appropriate background in the related area of law, it does make sense that staff expertise may not play a significant role in contracting performance of DCP tasks.

**Task Complexity.** The results find that task complexity negatively moderates the association between contracting use and performance of DCP tasks. This indicates that the negative impact of contracting on timeliness can be inflamed as the task under contract becomes more complicated. As discussed earlier, one of the main caveats in traditional contracting theories is that contracting models do not consider a broad enough range of tasks and the
characteristics of the performance measures. With this caveat in mind, prior studies have also explored complex contracting mechanisms, discussing incomplete contracts that have more relaxed assumptions compared to those of traditional contracting theories (Brown, Potoski, & Slyke, 2016; Brown et al., 2010). The findings reaffirm concerns that complex tasks can be a challenge to effective contracting (Brown et al., 2018; Fernandez, 2004). As a result, using third-party contractors is not always beneficial for complex tasks in the public sector. Scholars have argued that “exchanges for complex products create the risk that one party can harm the other under the cloak of ambiguity about the contract’s precise terms” (Brown et al., 2018, p. 741). In many areas of the public sector, tasks become muddled and complicated, unlike in the private sector, which makes it difficult to manage contracting performance of complex tasks in the public sector. This study sheds some light on the literature on complex contracting, by highlighting that it is important that public agencies consider the level of complexity in tasks when they contract out their work.

**Incentive Structures.** The results suggest that incentive structures have a moderating effect on the link between contracting use and performance of DCP tasks. As a result, the findings of this study support the arguments in the previous literature, which claim that incentive structures do matter. This means that agencies that have more vendors with a case-based (output-based) incentive structure are likely to have more timely completed tasks in the discrimination complaint process; agencies using more vendors with a time-based (input-based) incentive structure are less likely to have timely completed tasks. The findings of this study are consistent with what is expected from traditional principal-agent and incentive theories, which argue that contractors are expected to spend more time completing assigned tasks when they have a time-based incentive structure, due to their rent-seeking behavior (Behn & Kant, 1999). Further, the
findings underscore the idea that a performance-based incentive structure can potentially be used to hold contractors accountable for their performance in practice (Girth, 2017; Girth & Lopez, 2019). The findings show that using an appropriate incentive structure is still effective, even for DCP tasks where performance is difficult to measure and assess, if the tasks are based on specific timeframes set by regulations. This extends the literature on contracting for complex government services by providing evidence of cases where performance-based incentive structures are effective in improving contracting performance in complex and non-mission-based programs.

**Shared Norms and Values.** This study examines the moderating effect of using vendors that possess shared norms and values on the association between contracting use and performance of DCP tasks. In operationalizing shared norms and values, I employ three ownership types of contracting vendors respectively, women-owned (WO), small disadvantaged business-owned (DO), and veteran-owned (VO), which are assumed to possess shared DCP values. The findings offer evidence of the positive moderating effect of using DO vendors on the link between contracting and performance of DCP tasks. However, the moderating effects of using WO and VO vendors turn out to be insignificant. In detail, the negative relationship between contracting use and timeliness in the agencies that do not use any DO vendors (DO=0), turns into a positive one when the agencies use at least one or more DO vendors (DO=1). This result is somewhat consistent with stewardship theory, demonstrating that contracting parties possessing shared values is a crucial factor in effective service delivery.

In particular, the positive and significant moderating effects of having DO vendors indicate that these types of vendor should receive priority consideration. It is relatively novel that the findings of the study uncover that the identity of vendor types beyond the sector differences
(public vs. private/nonprofit) influences the ability of agencies to achieve goals. The idea of classifying and using DO vendors stems from consideration of vendor owners whose ethnicity and race is socially/economically underrepresented, which is often criticized in affirmative action set-aside programs. However, this study provides empirical evidence that using DO vendors is actually beneficial to agency performance in the discrimination complaint process. This might be potentially consistent with representative bureaucracy arguments. This study extends the representative bureaucracy literature by offering the evidence that the representation of contracting vendors would matter in federal agencies. Especially when the tasks are value-laden (i.e., DCP tasks), using the underrepresented vendors for contracting turns out to be beneficial to government agency performance. Regarding symbolic representation, the findings of the study imply that using DO vendors seems to have a positive influence on performance of the EEO discrimination complaint process. Specifically, a federal agency is likely to have a more expedited discrimination complaint process when the agency employs at least one or more DO vendors for the EEO process.

Also, regarding the results showing that using DO vendors rather than WO and VO vendors is the only significant factor, it is worth noting that these vendors may have differential and more sophisticated shared values. For instance, DO vendors may have a better understanding of or strong solidarity with values related to race and ethnicity, while WO vendors may have the same with gender issues. Considering that a much larger proportion of discrimination complaints focus on race and ethnicity, as compared to gender, this may explain why the results indicate that having DO vendors among the types of underrepresented vendor that are supposed to have shared DCP values shows a positive moderating effect. All in all, this study provides partial but crucial support for the arguments made by stewardship theory and previous studies
that having shared informal norms and values between actors can mitigate negative impacts on contracting performance in complex services, but in a sophisticated way.

Last, the study contributes to the literature on contracting out of DCP tasks by examining the relationship between contracting use and agency discrimination complaint rate. In particular, the results from the quantitative analysis provide some empirical evidence of the positive relationship between contracting use and discrimination complaints. Because there is a lack of theoretical background on the relationship, I reviewed previous studies on discrimination complaints in conflict management, sociology, and the human resources management fields. Along with this, the practical insights from the background semi-structured interviews with federal officials are provided in order to understand a more nuanced context behind the relationship between contracting use and agency discrimination complaints. Practitioners pointed out that agencies are usually motivated to use contractors as third-party agents to avoid conflicts of interest and ensure neutrality in the complaint process, highlighting that reducing costs may not be the main reason for using contractors in certain cases. As hypothesized, the findings demonstrate that contracting use in DCP tasks has a significant and positive relationship with agency discrimination complaint rate. In addition, the qualitative findings give additional insights into a potential effect of using EEO contractors on employees reporting behavior to the EEO office. Practitioners indicated that complainants may feel more comfortable communicating with EEO contractors rather than in-house agency EEO employees, expecting more neutrality in the former process, which probably explains the positive link between contracting use and agency discrimination complaints in the quantitative analysis.
3. Implications for Practice

The dissertation sheds some light on our understanding of the discrimination complaint process in practice. One of the main takeaway points from the study is that timeliness can be a valuable and useful measure that public agencies can use to assess the discrimination complaint process. In practice, timeliness is worth considering because the EEOC and other government actors care about it as a central performance measure for the discrimination complaint procedure, and because it requires EEO offices of federal agencies keep up with the process within a specific timeframe. Moreover, failure to complete the discrimination complaint cases in a timely manner may cause serious issues of “Justice Delayed is Justice Denied,” as complainants may need to endure a discriminative work environment. In light of the integration of performance measurement and contracting theories, this dissertation provides practitioners with theoretical backgrounds and a sense of why timeliness measures are also appropriate for keeping track of agency performance in the complaint process, which can be compatible with their practical need to use timeliness as a performance measure.

Next, this dissertation suggests that practitioners pay close attention to contracting performance when they decide to contract out mission-extrinsic DCP tasks whose outcomes are difficult to measure and observe. In spite of what this study finds, in terms of the negative relationship between contracting and performance of DCP tasks, it does not recommend that practitioners stop using contractors in the discrimination complaint process. In fact, it is difficult to avoid employing contractors in government work, because public agencies often have a lack of resources to deal with backlogs. Instead, this study highlights that it is important for public agencies to have effective management strategies that hold contractors accountable for performance of DCP tasks. The results of the dissertation point out some managerial and
contextual factors and contract vendor characteristics that need to be considered when managing contracting performance. For example, if the tasks are too complex, public agencies would be wise to use contract strategies to hold contractors accountable, by applying a more detailed incentive structure or a rigorous monitoring system.

The findings of the study further imply that practitioners in the EEO office need to consider using specific incentives or sanctions to effectively manage contractors’ performance in the discrimination complaint process. According to the interviews that I conducted, there is “no specific reward or sanction that is applied to hold contractors accountable for their performance in the complaint process.” Interviewees generally consider that cancelling or not renewing the contract itself can be one way of controlling performance, because agencies have some “power of the purse.” However, this study argues that federal agencies may need more sophisticated contract management strategies rather than just believing that “power of the purse” can control contractors’ behavior. Although interviewees claimed “it is relatively easy for agencies to end the contract if contractors’ performance is not satisfactory,” this study offers empirical evidence that having case-based incentives or utilizing vendors that may prioritize the shared values (e.g., equity, fairness) will be helpful for agencies to hold contractors accountable for their performance. Moreover, ending up the contract may not be beneficial to the agency because it would take more time and costs to find another contractor. Thus, it is better for the agencies to have contractors successfully perform during a contract period by using some managerial strategies. It is not a matter of whether or not keeping a contract relationship, but a matter of how to manage a contract relationship for successful contracting performance.

Besides these principal theoretical and practical implications, it is worth discussing the control variables that are relevant to the specific context of the study. Surprisingly, independence
of the EEO director does not have a significant effect on performance of DCP tasks measured for timeliness and agency discrimination complaints (in all Models I, II, and III). In practice, having the EEO director directly report to the agency head has been considered important to prevent the agency from creating potential conflicts of interest. However, the findings of the study do not provide sufficient evidence to support this. This insignificant result may be connected with the idea that the independence of the EEO director may not be explicitly noticeable to EEO officials and the complainants involved in the complaint process. Thus, for the practitioners, it is better to explicitly explain whether or not and why an agency’s EEO director needs to be independent.

In addition, the study controls diversity climate, expecting it to have a significant impact on performance of DCP tasks and agency discrimination complaints. According to the quantitative findings, diversity climate is not significantly related to performance of DCP tasks in Model I, and only shows a marginally significant and positive relationship in Model II, so it is not clear if the agency’s diversity climate plays a significant role in timely completing of tasks. However, diversity climate has a significant and negative relationship with agency discrimination complaints. It is not surprising that agencies more open to diversity are likely to have a fewer discrimination complaints. This implies that putting more effort into advocating an agency environment embracing diversity will be a crucial aim of non-discriminative workforces pursuing the main DCP values.

4. Limitations of the Study and Future Studies

Despite the implications of the study for scholars and practitioners, this dissertation does have some limitations, as well as suggesting some future study areas. It is first worth pointing out that there are some caveats around timeliness as a performance measure of DCP tasks. Because
the study uses a proxy metric, this measure may not be the best way of capturing the idiosyncrasies of performance of DCP tasks. Because timeliness is not an outcome measure but an output measure, the results of the study do not offer evidence about how the timely completed cases will be attributed to an outcome measure of DCP tasks. In fact, I admit that there are other possible measures, such as quality of completed tasks and client feedback. Related to this point, it is worth noting that the interviewees provided some useful thoughts on other performance measures. Feedback from employees after the case is closed and the number of resolutions can also be considered, but this feedback is not collected consistently or systematically. Feedback from employees may be useful for other agencies that will probably use the same contracting vendor in the near future. Agency officials indicated they evaluate their own performance by how many cases are resolved early in the process rather than reaching the Final Agency Decision stage. In this sense, they believe that early resolution is important in addition to timeliness and report quality, which makes them track and care about the number of resolutions. Yet it is worth pointing out that most of the early resolution is one by agency EEO employees not contractors, so that early resolution can be considered a measure of performance for the EEO program not a performance measure of contractors’ work. Future studies would also need to be considered to fully examine the multiples aspects of performance in DCP tasks by using such measures.

More importantly, there may be some trade-off issues between timeliness and quality of the process. Although timeliness can be a reasonable proxy to assess performance of DCP tasks, the question of the quality of the tasks still remains. Put another way, using timeliness as a performance measure has some caveats as it is not planned to beef up the quality of the process. It is reasonable to argue that some contractors attempt to finish the DCP tasks as soon as possible at the expense of the quality of the activities, if they only pursue timeliness, an interviewee
highlighted that pursuing timeliness would not trump quality though. Moreover, interviewees noted some possible ways of assessing the quality of the process. For example, agencies review counselors’ and investigators’ reports, focusing on whether or not the case is thoroughly documented and investigated, and if the proper questions are being asked during the process. Considering this, future studies can test and examine the effect of contracting use on performance of DCP in terms of quality of the process.

Besides this, in terms of task complexity, the use of a proportion of unresolved cases in the ADR process as a proxy metric can be a limitation. This study assumes there is a high number of complicated cases that are not easily resolved in the pre-complaint process, meaning that they are more likely to go beyond the ADR process. However, there might be other cases that are difficult to resolve in the ADR process, regardless of task complexity. For example, there are possible cases where complainants strongly argue that they feel discriminated against and are unwilling to resolve the cases in a pre-complaint process, even though the case itself is not very complicated. In light of this, future research could add more items to measure these factors, or find more appropriate measures, if available, in order to capture the traits of each variable as thoroughly as possible.

This analysis does not draw causal inferences, which can be another limitation. As this study neither controls all potential variables that can influence the link between contracting use and performance, nor offers evidence from large-scale longitudinal data, the results do not infer a causal link. As noted earlier, it may have a potential concern around Model II with four-way interaction effects as the observation number is not large. In addition, there might be some selection bias issues around why an agency chooses to contract out, selects specific contractors, and allocates complaint cases between contractors and agency employees if an agency has both.
Although this study provides some qualitative insights from the semi-structured interviews into why an agency uses contractors and how the cases are allocated, these findings are supplementary, and the quantitative models still have some omitted variables that might have an impact on contracting performance of DCP tasks, due to the limitations of data availability. Thus, future research could add more robust insights by analyzing sufficient quantitative and qualitative data and adding more datasets or interviews with EEO contractors and agency EEO employees. For example, it is useful to add more data about contractors’ characteristics in detail, although the dissertation already includes the main vendor characteristics (e.g., incentive structure, shared values). In addition, future studies could include interviews with both EEO contractors and agency employees, asking which factors might hinder better performance in the discrimination complaint process. These analyses would be useful to show the dynamics of contracting out performance in depth.

Last, this study presents the findings from the qualitative analysis by interviewing some federal officials to obtain a more nuanced context. That said, the limited number of interviews makes it hard to generalize these insights. For example, the findings from the semi-structured interviews could only reflect the interviewees’ specific experiences, given the agency’s circumstances. Moreover, experiences around contracting use in the discrimination complaint procedure may be different in state and local government agencies, which are different in terms of management resources and contracting strategies. Therefore, future studies may benefit from looking into contracting use in the discrimination complaint process in other government level agencies (i.e., state and local governments), and comparing them with the findings of this study.
5. Conclusion

The main purpose of this study is to investigate the dynamics of contracting performance in DCP tasks that are not mission-based and are difficult to measure. Most contracting studies have focused on government contracting of traditional government products, and services that are usually mission-based and whose outcomes are relatively easy to assess and observe. However, there is a lack of evidence on how contracting out strategies work in non-traditional government services. Thus, this dissertation tests and provides empirical evidence of whether or not contracting strategies are effective with regard to performance of non-traditional government services, by examining contracting use in the discrimination complaint process.

By analyzing contracting use in this process, the dissertation has answered the following three research questions: 1) Does contracting achieve better or worse performance in DCP tasks compared to in-house delivery? 2) Which managerial, contextual factors, and contract characteristics affect contracting performance in DCP tasks? 3) Do agencies using EEO contractors experience a higher or lower discrimination complaint rate? After closely reviewing the theories and previous studies on performance measurement and contracting out, the dissertation suggests eight hypotheses, including three sub-hypotheses, to explore the link between contracting use and performance of DCP tasks and agency discrimination complaints.

This study suggests timeliness measure as a proxy to assess performance of DCP tasks. It is crucial to review and find an appropriate performance measure, not only because it is usually hard to measure and observe performance outcomes for DCP values and tasks, but also because clearer measures would help agencies monitor and assess contractors’ work. In the previous literature, scholars have suggested a timeliness measure and/or specific activities that must be carried out during the process as alternative performance indicators for non-mission-based, DCP
tasks. In practice, timeliness of completing milestones in the discrimination complaint procedure is also worth measuring, because the EEOC seriously cares about cases being completed in a timely manner due to its huge backlog. Linking timeliness measure to DCP values and tasks, timeliness in the discrimination complaint process is also an important measure, as delays in the process will cause serious issues of “justice delayed is justice denied,” with regard to federal employees’ rights, and harm a non-discriminative work environment.

The results of this study offer the following evidence regarding the research questions: 1) contracting may not achieve better performance in human resource services for DCP tasks compared to in-house delivery, 2) having complicated tasks, appropriate incentive structures, and vendors possessing shared norms and values can affect contracting performance of DCP tasks, and 3) agencies using EEO contractors experience a higher discrimination complaint rate. Not only does this study provide evidence from the quantitative analysis, but it also gives some important insights from the supplementary qualitative analysis. In light of the practitioners’ experiences and perspectives, the findings from the semi-structured interviews are useful to confirm the quantitative findings, and shed further light on the results from the quantitative models.

In conclusion, the results deepen our understanding of contracting use with regard to performance in DCP tasks. Given the paucity of empirical evidence, it is worth examining whether or not the use of contracting out has an effect on performance of DCP tasks that are mission extrinsic and not easily measured. Testing a nondirectional hypothesis in the context of the EEO discrimination complaint procedure, I find that use of contracting for these tasks is negatively associated with agency performance of the tasks, which somewhat challenges what the proponents of contracting believe. The findings further the discussion, suggesting that
contracting needs more sophisticated contract designs to hold contractors more accountable for performance of DCP tasks, considering staff expertise, task complexity, incentive structure, and shared norms and values. These findings contribute to contracting literature by adding empirical evidence that partially supports what contracting theories – public choice theory, principal-agent/incentive theories, stewardship theory – have argued. Also, the study offers some implications for practice, suggesting that contracting out DCP tasks that are not usually integral to agency missions needs to be carefully managed to maintain effective contracting use.
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Appendix A. Agency EEO Discrimination Complaint Process

Stage I: Informal Complaint Process

Stage II: Formal Complaint Process

Note: Developed by Rubin & Alteri (2017).
Appendix B. Interview Consent Form

Contracting Out for Performance on Democratic-Constitutional Values and Procedural Tasks in Federal Agencies

Iseul Choi, PhD Candidate, University at Albany-SUNY
Dr. Ellen V. Rubin, Associate Professor, University at Albany-SUNY

INTERVIEW CONSENT

Your rights: Your cooperation in this study is completely voluntary. You may refuse to answer any question. Even after you agree to participate in the research or sign the informed consent document, you may decide to leave the study at any time without penalty or loss of benefits to which you may otherwise have been entitled. I will retain and analyze the information you have provided up until the point you have left the study unless you request that your data be excluded from any analysis and/or destroyed. The information you provide will be used for research purposes only.

Purpose of the study: The goal of this project is to examine the impact of contracting out on public agency performance in democratic-constitutional and procedural (DCP) endeavors. This project specifically analyzes how contracting is associated with performance in the context of the equal employment opportunity (EEO) discrimination complaint procedures, using two measures of performance: the timeliness of completing cases and the average costs of investigation. By assessing agency performance in discrimination complaint processes, the project analyzes whether and how contracting out affects non-traditional outcomes.

Study procedures: We will conduct semi-structured interviews by phone, lasting approximately one hour. The researchers will take notes during the interview.

Audio recording with permission: If you grant us permission to do so in advance we will record the interview. You may still participate in this study if you are not willing to have the interview recorded.

Benefits and Risks: You will not be compensated for your participation. Although you may not receive direct benefit from your participation, others may ultimately benefit from the knowledge obtained from this research. This study will benefit government agencies and the research community in supporting efforts to improve performance in DCP tasks like the EEO discrimination complaint procedures. Other agencies and organizations may find the results of
use too. Any individual benefits will be related to the opportunity to reflect on your preferences and decisions. We do not anticipate any risk in your participation other than you may become uncomfortable answering some of the questions.

**Confidentiality:** Presentations, reports, and publications will focus attention on general findings and reported in ways that avoid identification of particular individuals. All the interview data for the project will be stored on university computer servers that are password protected. All information obtained in this study is strictly confidential unless disclosure is required by law. In addition, the Institutional Review Board and University or government officials responsible for monitoring this study may inspect these records.

**Contacts and Questions:** If you have any questions about this study, please contact either Iseul Choi, PhD Candidate (ichoij@albany.edu or 608-338-2669) or Dr. Ellen Rubin, Associate Professor (erubin@albany.edu or 518-442-5261) in the Department of Public Administration and Policy, University at Albany, State University of New York. You are welcome to keep a copy of this form for your records.

Research at the University Albany involving human participants is carried out under the oversight of the Institutional Review Board (IRB). This research has been reviewed and approved by the IRB. If you have any questions concerning your rights as a research subject or if you wish to report any concerns about the study, you may contact University at Albany Office for Pre-Award and Compliance Services at 1-866-857-5459 or hsconcerns@albany.edu.
Appendix C. Interview Questionnaire

Contracting Out for Performance on Democratic-Constitutional Values and Procedural Tasks in Federal Agencies

Iseul Choi, PhD Candidate, University at Albany-SUNY
Dr. Ellen V. Rubin, Associate Professor, University at Albany-SUNY

INTERVIEW QUESTIONS

1. Why does your agency hire contractors for the EEO complaint process?

2. Do you think employees are more likely to feel comfortable with contacting an EEO office for discrimination complaints when the EEO office has EEO contractors? Why or why not?

3. If an agency uses a mix of in-house and contractor EEO staff, how are discrimination complaints allocated between them?

4. What could be performance measures of the EEO discrimination complaint process?

5. How does your agency monitor and assess EEO contractors’ performance?

6. What kinds of rewards or/and sanctions does your agency use for holding contractors accountable for their performance?