

Coping Resources for Public Employees  
An Examination of Instrumental Leadership

by

Michelle Allgood

A Dissertation Presented in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy

Approved March 2023 by the  
Graduate Supervisory Committee:

Ulrich Jensen, Chair  
Justin Stritch  
Susan Miller  
Amy Smith

ARIZONA STATE UNIVERSITY

May 2023

## ABSTRACT

In recent years, public service has confronted the challenge of decreasing employee well-being, evidenced by increased burnout and turnover. One of the threats to employee well-being is the challenge of balancing increasing job demands and decreasing job resources. The imbalance between public servants' job demands and resources has been exacerbated during a time of heightened stress due to a global pandemic. This perfect storm of imbalance along with the stressors from a global pandemic offers an opportunity to examine how public organizations and leaders can help employees maintain or improve workplace well-being. One way public employees can handle this imbalance between job demands and job resources is by relying on coping resources.

Coping resources are personally and environmentally produced assets that work in conjunction with coping mechanisms to increase employee well-being. All job resources can be considered coping resources, but not all coping resources are job resources. Public organizations can leverage certain types of coping resources to reduce the impact of job demands and job resource imbalances, including resources that emanate from the organization itself, like leadership. Instrumental leadership helps employees address stressors by monitoring the environment, facilitating goal achievement, offering constructive feedback, and providing visionary leadership.

To investigate the relationship between coping resources and employee well-being, I examine the relationship between coping resources and employee well-being, focusing on the relationship between instrumental leadership and burnout. In Chapters 1

and 2, I discuss my dissertation and review the theory behind this relationship. Chapter 3 examines the different types of coping resources (instrumental leadership, affective organizational commitment, self-efficacy, and social belonging) and the connection between each of the coping resources and markers of employee well-being (i.e., burnout and stress) as well as the mediating role of two coping mechanisms (self-distraction and planning). In Chapter 4, I review the dataset, which is a repeated measures design with two data points from city employees working in a large city in the southwest United States. Chapter 5 presents the analysis of these relationships. Chapter 6 summarizes my findings, shares the limitations of this research, and presents future ideas for research.

## DEDICATION

I want to thank my family for their support, patience, and encouragement. I would not have gotten here without your influence and care.

## ACKNOWLEDGMENTS

I would like to express my gratitude to Dr. Ulrich Jensen for the opportunity to work on this research project and for his guidance and support throughout my doctoral journey. I would also like to sincerely thank Dr. Justin Stritch for providing valuable guidance and encouragement throughout my studies. I'd like to thank Dr. Susan Miller and Dr. Amy Smith for helping me develop my research. Finally, I'd like to thank Ashlee Frandell for being my ride-or-die during this process.

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## 1: INTRODUCTION

Recent research on burnout shows that around one in three public sector workers are experiencing feelings of burnout (Barrett & Green, 2020; Linos, Ruffini, & Wilcoxon, 2021). Turnover trends are just as concerning as the number of public employees considering leaving their jobs rose by 11% between May and October of 2020 (Center for State and Local Excellence, 2020). Over the past five years, turnover for state and local government employees has consistently sat at around of 20% (Bureau of Labor Statistics, 2022). While increasing fiscal resources and other assets can help balance the disparity between job demands and job resources (Schaufeli & Taris, 2014), many public organizations may not be able to increase workplace resources, which takes a toll on employee well-being. Researchers have long identified that a risk to employee well-being exists when job demands exceed job resources (Sommer Harrits, 2018; Tummers, 2017; Shim, Park, & Jeong, 2019; Baviskar, 2019). An imbalance between an employee's job demands and job resources can lead to increased work-family conflict, which is correlated with increased feelings of burnout (Allgood, Jensen, & Stritch, 2022). An imbalance between job resources and job demands also leads to increased employee workplace stressors (Schaufeli & Taris, 2014). Unaddressed or inadequately addressed stressors in the workplace impacts employees' well-being, which leads to negative job outcomes (e.g., dissatisfaction, burnout, turnover, reduced organizational citizenship behavior, etc.) and decreased organizational effectiveness (Meisler, Vigoda-Gadot, & Drory, 2017).

When an employee's lack of well-being in a job hinders the ability to meet job demands (Shim, Park, & Jeong, 2019) or when job demands are "solely hindering and inherently negative" (Borst et al., 2020), the act of coping becomes an important consideration. The act of coping, and by extension, coping resources, acts as a stabilizing influence after a crisis leads to a pile-up of stressors (Holahan, Moos, & Schaefer, 1996). Coping is an individual's response to "master, tolerate, or reduce stress" (Tummers et al., 2015). In a public sector context, coping is the actions public employees, and their leaders, take against overwhelming work demands by using personal and organizational resources to reduce or remove workplace stressors and improve employee well-being. Successful public employees are those who can appropriately cope with ambiguity and uncertainty to meet job demands (Fowler, 2020). The coping process is adaptive and can be modified to meet the resources and needs of the employee within their unique situation (Kato, 2012; Jian, Lee, & Xu, 2020).

Oftentimes, the demarcation between coping as an umbrella term, coping as a behavioral and cognitive response to stress, and coping as an action or mechanism has not been made clear (Tummers et al. 2015). Current research in public administration focuses on individual coping mechanisms (see Davis et al., 2020, Henderson & Borry, 2020, and Nguyen et al., 2019 for recent examples) or classification of coping behaviors (see Tummers et al. 2015). My research seeks to understand the *coping resources* public servants draw on to respond to ongoing imbalances between job demands and job resources as part of the coping process. Coping resources are the things, practices, beliefs, and/or relationships an individual draws upon to increase their well-being

(Lazarus & Folkman, 1984). Coping resources influence the success of the overall coping process by reducing stressors and increasing employee well-being (Lazarus & Folkman, 1984).

This dissertation focuses primarily on instrumental leadership as a coping resource for public employees. Specifically, I examine the role instrumental leadership plays as a coping resource in relationship to different markers of employee well-being. Instrumental leadership, as a coping resource, is something that organizations can exercise control over by developing leader skills and helping leaders engage with their employees. A direct influence on instrumental leadership, as an environmental resource, is substantively easier to accomplish within an organization than influencing other resources like self-efficacy (a personal resource).

One key indicator of employee well-being is employee burnout. While employee well-being encompasses more than burnout, I use the concepts of burnout (as a marker of employee well-being) and employee well-being interchangeably throughout this dissertation. I ask, “What is the relationship between coping resources and employee well-being?”, “What is the relationship between instrumental leadership, as a coping resource, and employee well-being?”, and “How do coping mechanisms mediate the relationship between coping resources and employee well-being?”

This dissertation contributes to the public administration literature in several ways. First, I extend knowledge around a well-studied relationship (i.e., leadership and employee well-being) by examining leadership from a coping resources perspective. I examine how coping resources are defined and how different types of coping resources

are related to employee well-being. I also examine a specific type of leadership behavior, instrumental leadership, that is still emerging as an important archetype of leadership (Antonakis & House, 2014). Second, I add to my extension by examining how instrumental leadership, as a coping resource, is mediated by different coping mechanisms (self-distraction and planning). This secondary extension provides insight into the role instrumental leadership plays in the coping processes occurring in public workspace. My results can help leaders and organizations identify how to influence the development and use of coping resources to encourage employee well-being. Finally, I provide insight into the dimensions of coping resources through the frame of public employment. While the act of coping is being studied more frequently in public administration, the elements leading to the act of coping (i.e., coping resources and mechanisms) are not often included as part of this research.

I leverage the book format to review the relevant theory and empirically explore the relationship between instrumental leadership and employee well-being. Chapter 2 presents a theoretical approach to understanding coping resources and how I frame the use of coping resources by intertwining the job demands-resource theory and the Double ABCX model. The objective of Chapter 2 is to understand the role of coping resources within the larger process of coping and review my main variables of interests. I also present the specific hypotheses tested in Chapter 5.

The objective of Chapter 3 is to explore the relationship between coping resources and employee well-being and understand how this relationship might be explained by different coping mechanisms. I discuss the dimensionality of coping resources, identify



classifications around coping resources, and explain some of the basic associations between coping resources, instrumental leadership, and burnout. Chapter 3 incorporates a more holistic vision of public employee coping and coping resources than is typically found in public administration research. This chapter increases understanding about the role instrumental leadership, as a coping resource, plays in employee well-being and provides a foundation for the further exploration of that relationship in Chapter 5. I also examine how the relationship between instrumental leadership and burnout is mediated by different coping mechanisms and highlight the complex atmosphere that surrounds an employee's choice to cope and the resources they may choose to engage.

Chapter 4 presents a discussion around the data used to test the theory presented in Chapter 3. The objective of Chapter 4 is to identify the research design, data limitations, measurement information, and descriptive statistics. Chapter 4 provides a set-up for the rest of my dissertation, summarizing the data and measures used. I leverage both a fixed-effects panel data approach and a cross-sectional analysis, to address a pointed critique of coping research: the lack of longitudinal research (Davis et al. 2020). I present information in Chapter 4 on both the panel data (used in analysis 1) and the cross-sectional data collected at Time 2 (used in analysis 2).

Chapter 5 contains two empirical analyses of the relationship between coping resources and employee well-being. Specifically, I examine the direct relationship between instrumental leadership and employee burnout and stress. I examine how other coping resources (affective organizational commitment, self-efficacy, and social belonging) are related to employee burnout and stress. I rely on a panel data set and a first

difference estimation method to explore the relationship. Chapter 5 also contains a second empirical study focusing on the relationship between coping resources and employee well-being. Specifically, I examine the direct relationship between instrumental leadership and burnout. I focus on how the presence of two specific coping mechanisms, self-distraction and planning, mediate this relationship. I use structural equation modeling to test my hypotheses.

To conclude my dissertation, I summarize my findings, share the limitations of the methodology and data used, and discuss the implications of my research in Chapter 6. In the next chapter, Chapter 2, I outline the theoretical relationship between coping resources and employee well-being. I present a beginning path to incorporate these additional elements into a more holistic understanding of public employee coping.

## **2: THE COPING PROCESS**

Employee well-being is a holistic view of employee mental health focusing on an employee's subjective and psychological well-being in the workplace (Page & Vella-Brodrick, 2008; Sommer Harrits, 2018; Blom, Borst, & Voorn, 2020). Employee well-being embraces employee wellness (Page & Vella-Brodrick, 2008; Bakker, 2015). Employees with good workplace well-being have positive attitudes, satisfaction with their job and their life, opportunities to contribute to strong social networks, and high levels of personal fulfillment (Keyes, 2005). Employee well-being is tied to improved performance outcomes, increased organizational commitment, and reduced turnover (Page & Vella-Brodrick, 2008; Schulte & Vainio, 2010; Zheng et al., 2015). The relationship between organization success and employee well-being holds true across cultures (Zheng et al. 2015) highlighting the need for organizations to prioritize employee well-being. However, employees are not guaranteed to experience high levels of well-being in the workplace for a variety of reasons. One major threat to employee well-being is when employees are unable to effectively cope with workplace stressors.

A stressor refers to work conditions or incidents, either external or internal, that threatens employee well-being (Davis et al., 2020; Grant et al., 2004). Stressors can be chronic conditions or one-time events. Examples of stressors for public employees include role conflict (Tummers et al 2012) and ambiguity (Boardman & Sundquist 2009), organizational rules (Bozeman & Feeney 2009), value conflict (Oldenhof, Postma, & Putters 2013), interactions with clients (Tummers et al. 2012), loss of resources (Jin, McDonald, & Park, 2018), stakeholder expectations (Tummers et al. 2012; Baviskar

2019), and low job autonomy (Quratulain & Khan 2015). Stressors that exist in public service can produce negative and positive changes within the organization and its employees (McCubbin & Patterson, 1983). For example, stressors may encourage compassion, leading to better public service (Eldor 2018; Tummers et al., 2015). Stressors may also lead to limits on the clientele served (Durose, 2011; Tummers et al., 2015) focusing the employee's efforts on a small number of individuals.

Most stressors arising from job demands are normative, meaning the employees and organizations have time to prepare, can anticipate, or have previous experience with the situation (McCubbin & Figley, 1983). Normative stressors from job demands may have been experienced by other organizations or employees and present a minimum sense of loss, control, helplessness, disruption, or destruction to the organization (McCubbin & Figley, 1983). On the other hand, catastrophic stressors arising from job demands are infrequent occurrences with a level of dangerousness and a loss of control that leads to helplessness; one of the challenges of catastrophic stressors is that very few, if any, organizations have experience successfully navigating the stressor (McCubbin & Figley, 1983).

Successfully coping with catastrophic stressors requires organizations to engage in a balancing act with a high level of resource utilization (McCubbin & Figley, 1983). When employees expect that job stressors will produce negative consequences, they increase their own psychological strain, which increases the impact of the stressor. A workplace stressor's impact is also amplified if the employee anticipates that there is no easy solution to resolve or mediate the stressor (Bhagat et al. 2010). My dissertation

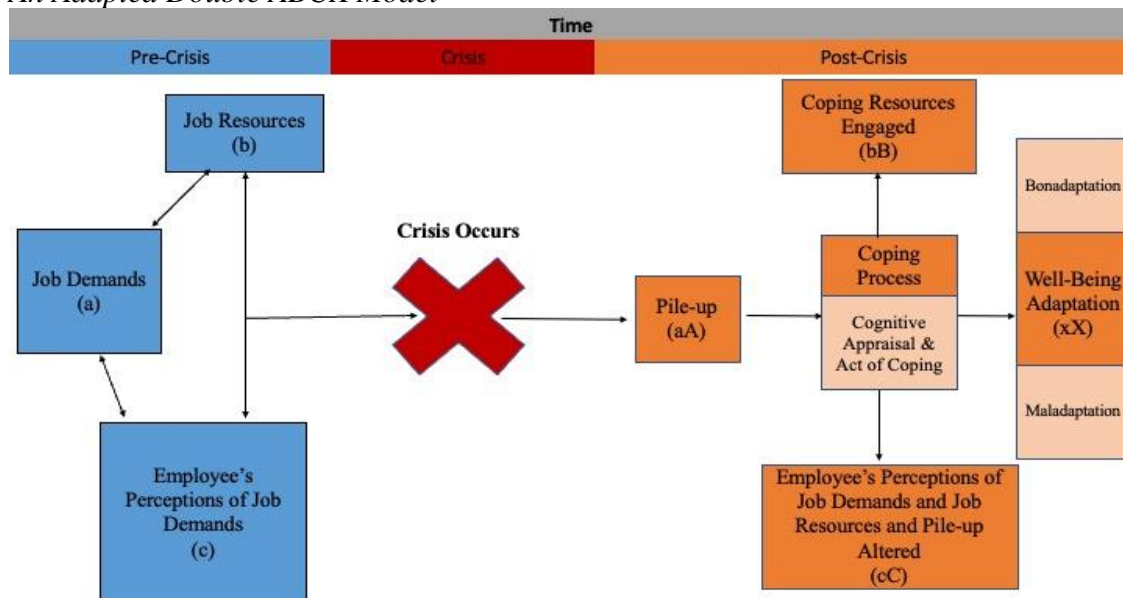
leverages the upheaval employees experienced during the COVID-19 pandemic to understand how employees engage coping resources during a crisis of global proportions. This catastrophic stressor presented no easy resolution and created a pile-up of other work stressors setting up enormous disruption for employees and organizations alike. This chapter first reviews the job demands-resource (JD-R) theory and double ABCX theory before situating my empirical analysis of the coping process within this larger framework.

### **Applying the Double ABCX Model**

Why do employees engage in the coping process? Employees cope to achieve balance between their job demands and job resources. This transactional process involves change over time, necessitating a theoretical perspective that incorporates a time-based view of the coping process and its attached outcomes. Reuben Hill developed the ABCX framework to study the long-term effect of stressors within families whose husbands or fathers went missing or became prisoners during the Vietnam War (McCubbin & Patterson, 1983). McCubbin & Patterson (1983) added to the ABCX framework (transforming it into the double ABCX framework) to accommodate the idea of adaptation after coping. McCubbin & Patterson's double ABCX framework focuses on how normative and catastrophic crises can impact the coping resources available to families and shape their perception of events (McCubbin & Patterson, 1983). Other researchers have adopted the ABCX theory & double ABCX theory to examine adaptations by families and other units to stressors. For example, ABCX has been used to study the adaptation of families to work-family conflict and spillover (Dennis, 1995; Hill,

2005), family work strategies during the COVID-19 pandemic (Shockley et al., 2021), and some front-line workers strategies to deal with COVID-19 in the workplace (Langran et al., 2022). I adapt the double ABCX framework by focusing on the employee's perception of job demands and job resources. This adaptation provides insight into how the perception of imbalance between job demands and job resources leads to coping when a crisis disrupts the employee's perception of balance or tolerated imbalance.

**Figure 1**  
*An Adapted Double ABCX Model*



**Pre-Crisis (a-b-c)**

As Figure 1 demonstrates, the inherent interaction between job demands (a) and job resources (b) is mitigated by the employee's perceived tolerance of their job demands-job resources balance (c). Demerouti et al. (2001) define job demands as the aspects of a job that employees must engage in, ranging from physical to social and organizational aspects. This engagement requires an effort on the employee's part and results in a physical or psychological cost (Demerouti et al., 2001). Job demands are

constant workplace stressors for employees to manage. Examples of job demands include lack of time to accomplish assigned tasks, difficult clients, ambiguity in the work, and overburdened workload (Bakker & Demerouti, 2007). Persistent strains on an employee's job through an overload of job demands can present threats to employee well-being (Bakker & Demerouti, 2007), necessitating the need to cope (Patterson & McCubbin, 1983).

Job resources are the aspects of the job that are not cost incurring, but provide support in reaching work-related goals, reducing the cost of job demands, and promoting employee growth (Demerouti et al., 2001). Job resources can occur at the organizational level or employee level. These resources are only effective if the employee buys into the organization's mission and goals (McCubbin & Patterson, 1983). Examples of common job resources include job autonomy, performance feedback, and supervisor support (Bakker & Demerouti, 2007). While public employees experience enormous job demands and limited job resources (Sommer Harrits, 2018; Shim, Park, & Jeong, 2019), employees tolerate a certain level of imbalance.<sup>1</sup> This perception of tolerated imbalance allows the employees to continue working, even under strained conditions, as their basic needs are being met or they are satisfied with their work achievements (Bakker & Demerouti, 2007). The imbalance of job demands and job resources may also be tolerated if the employee doesn't view the imbalance as a serious workplace stressor (McCubbin &

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<sup>1</sup> Carpenter (1992) emphasized "coping behaviors vary widely among individuals even when they experience the same stressor and vary within individuals across stressors" (p. 7).

Patterson, 1983). This perceived satisfaction or lack of harm allows employees to continue functioning within their given roles until a crisis occurs (X).

### **Crisis (X)**

When employees experience a crisis, it impacts how employees perceive their work environment moving forward and the trust they are willing to place within an organization (Gillespie & Dietz, 2009). A crisis is a workplace stressor that inhibits the ability of an employee to maintain their tolerated perception of job demands and job resources imbalance, creating enough pressure to disrupt the stability of the employee's work environment (McCubbin & Patterson, 1983). Crises impose pressure on employees to continually adjust to a stressor's demands (McCubbin & Patterson, 1983). Crises arise from internal or external workplace stressors and can be chronic or one-time. Chronic workplace stressors that cause an imbalance between job demands and job resources tend to evolve into a crisis when the employee's perception of balance between job demands and job resources is shattered. For example, when an agency experiences financial distress, employees must cope with a disruption to their tolerated balance between job demands and job resources (Thomann 2015). Other examples of chronic stressors that can transform into a crisis include persistent low job autonomy (Boardman & Sundquist 2009), perceived isolation (Tummers et al. 2015), organizational injustice (Nguyen et al. 2019), workplace bullying (Nguyen et al., 2019), and a dearth of leadership (Hock 1988; Meisler, Vigoda-Gadot, & Drory 2017). An example of a one-time, external stressor is the workplace crisis caused by the COVID-19 pandemic, which facilitated a rapid shift to work-from-home and constant adjustment to workflows.



Prior to experiencing a crisis, employees have a sense of equilibrium, even if imbalance exists between job resources and job demands. Employees may not feel the need to engage in the coping process, relying instead on defense mechanisms<sup>2</sup> to continue functioning within their assigned roles (Troop, 1998; Vink et al., 2015). However, when a crisis occurs, either externally or internally, the tolerated balance between job demands and job resources shifts. When a public employee's perception shifts from balance to imbalance, the employee begins to experience negative markers of employee well-being, like burnout, turnover, and decreased job satisfaction (Bakker & Demerouti, 2007). A crisis allows for stressors previously kept at bay to accumulate in a situation known as a pile-up (aA).

#### **Post-Crisis (aA-bB-cC-xX)**

Pile-ups are a reaction to a crisis. Pile-ups occur when job demands from a multiple of sources (i.e., normative changes, strains & hardships, chronic strain, efforts to balance demands and resources, ambiguity, catastrophes, etc.) become too much for the employee to manage (Patterson & McCubbin, 1983). As employees confront the cause of the imbalance (i.e., the stressors causing the crisis), they engage in the coping process, which leads to three outcomes: (bB) the engagement of coping resources, (cC) an altered perception of the tolerated balance/imbalance between job demands and job resources,

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<sup>2</sup> The act of coping is different from an individual's defense mechanisms. **Coping is a conscious choice** (Vink et al. 2015). Defense mechanisms are unconscious choices made in responses to stressors (Vink et al. 2015). Defense mechanisms are internal, hard to change, and hard to understand rationally (Nalbandian 1985). Researchers find it can be difficult to separate conscious, deliberate coping choices and unconscious defensive maneuvers, as it depends on the willingness of the individual to share their motivations and experiences, since observation alone cannot separate the two (Troop 1998).

and (xX) well-being adaptation. I discuss the engagement of the coping process and coping resources in the next section.

The second outcome (cC) refers to how employees alter their tolerated perception of the balance between job demands and job resources. As Patterson & McCubbin (1983) explain, the efforts to cope, over time, redefine the employee's situation by considering the initial stressors and preferred balance of job demands and job resources, the crisis and accompanying stressors, and the ultimate resolution of the situation. During this adjustment, employees tend to review their coping resources and work to restore balance while promoting their own workplace well-being (Patterson & McCubbin, 1983).

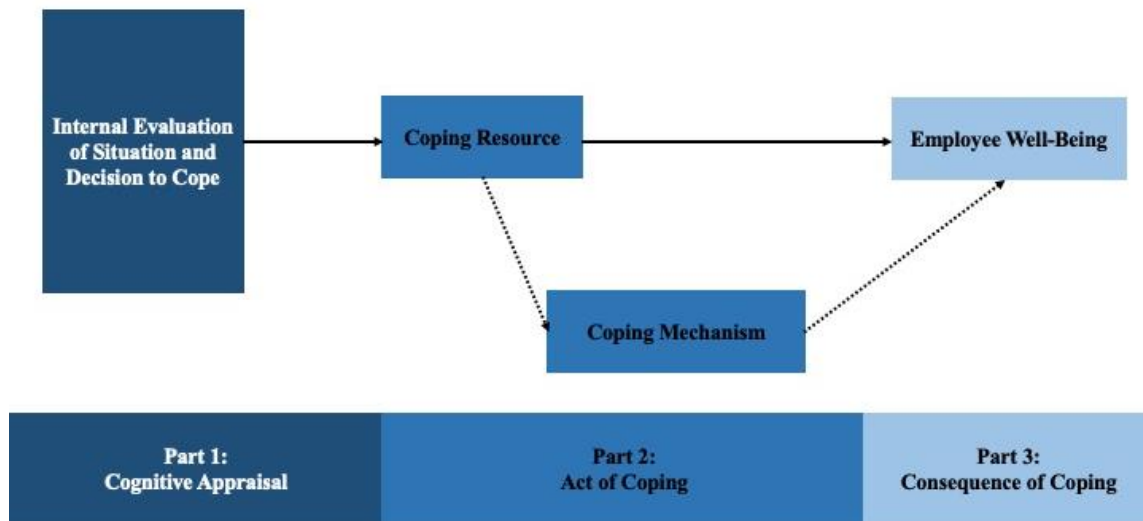
The last outcome (xX) refers to an employee's adjusted workplace well-being within their new reality. The original double ABCX theory refers to this adjustment as adaptation. Adaptation occurs on a continuum from bonadaptation to maladaptation (Weber, 2011). Bonadaptation indicates that employee well-being improves due to a successful coping process and maladaptation indicates the employee well-being worsens due to an unsuccessful coping process. Psychologists examine employee well-being in different ways, focusing on an individual holistically, instead of examining an individual within the confines of their organizational identity (Page & Vella-Brodrick, 2008). Bakker (2015) suggests that positive and negative markers of employee well-being (including burnout, work engagement, and positive affect) are more suited to outcomes of interest in employee well-being research to account for the impact of specific physiological and/or psychological costs that arise due to a job demands and job resources imbalance.

## **The Coping Process and Coping Resources**

Coping is the cognitive or behavioral choices made by individuals to alleviate one or more stressors in their life and improve their well-being (Folkman & Lazarus, 1984; Tummers et al., 2015). Within a workplace context, the coping process is a transactive decision employees make to cope in response to a pileup of stressors. The coping process spans the evaluation an employee makes about the pile-up of the actions taken to mitigate stressors and improve employee well-being. The term coping covers a broad range of processes from very specific cognitive and behavior practices to more intangible practices of adaptation. The operationalization of the coping construct has been inconsistent and is sometimes confused with the overall coping process itself (Tummers et al. 2015). Some researchers have referred to coping as “approaching rules” or “strategies of survival” (Tummers et al. 2015) while other researchers have focused on the idea of an “ordeal mechanism” where being willing to cope is a calculated move to maximize utility, even if the skills to cope vary from person to person (Christensen et al. 2019). My research recognizes that the coping process is inherently different from the act of coping itself.

Coping is an action within the larger framework of the coping process found in Figure 1. As Figure 2 demonstrates, the coping process can be viewed like a three-act play.

**Figure 2**  
*The Coping Process*



In Part 1, an employee engages in cognitive appraisal by evaluating the situation and identifying the need to cope. After making the decision to cope, the employee moves to Part 2. In Part 2, an employee participates in the act of coping, combining their coping resources and coping mechanisms to combat the stressors caused by an imbalance in their job demands and resources. After working to combat the stressors, the employee moves to Part 3 and experiences the consequences of their coping. Here the employee's well-being is altered based on the actions taken in Part 2 (i.e., bonadaptation or maladaptation). Understanding each part of the coping process enables us to make assumptions about certain elements, like cognitive appraisal, to conduct an empirical assessment of the coping process. In this next section, I review each piece of the coping process outlined in Figure 2, starting with Part 1.

## **The Coping Process Explained**

### ***Part 1: Cognitive Appraisal***

In cognitive appraisal, employees examine how the stressor is affecting their well-being.<sup>3</sup> When employees experience a pile-up of stressors, they conduct a cognitive appraisal to assess the threat of a stressor, their ability to respond, and the resources at their disposal (Lazarus & Folkman, 1984). If the employee feels a crisis has not produced a pile-up of stressors, the employee will not continue with the coping process. To assess the impact of the stressor on their workplace well-being, employees focus on the coping resources and coping mechanisms available. After the employee completes their appraisal, they move to the act of coping, which involves finding and using coping resources and coping mechanisms (Jian, Lee, & Xu, 2020; Rovira, Fernandez-Castro, & Edo, 2005).

### ***Part 2: Act of Coping***

When an individual engages in the act of coping, they combine at least one coping resource and one coping mechanism to address the pile-up of stressors.

**Coping resources.** Coping resources are the assets employees use in the coping process to address their pile-up of workplace stressors. Coping resources are used in conjunction with a coping mechanism to address the stressor and can interact with multiple mechanisms and resources (Terry, Tongue, & Callan, 1995). Examples of coping resources include social capital, positive attitude, personal resilience, self-esteem, generalized control beliefs, neuroticism, and social support (Terry, Tongue, & Callan,

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<sup>3</sup> There is a theoretical difference between cognitive appraisal and cognitive coping mechanisms—appraisal proceeds coping (Troop, 1998).

1995; Van den Brande et al., 2016). There is a strong interrelationship between coping resources and coping mechanisms, sometimes creating confusion around what construct is actually being studied. This confusion can extend to the relationship between coping resources and cognitive appraisal (Part 1).

**Coping mechanisms.** Coping mechanisms are specific actions an individual employs to manage the stressor they are experiencing (Van den Brande et al. 2016). Examples of coping mechanisms include job crafting (Jensen & Pedersen, 2017), gratitude (Dai et al., 2020), and withdrawing from work (Vink et al., 2015). Coping mechanisms are generally sorted into three categories of coping behaviors: task or problem-focused, emotion-focused, and avoidance-focused (Endler & Parker, 1990; Losiak, 2011; Folkman & Lazarus, 1984) and can be cognitive or behavioral responses. Employees may choose to utilize one or multiple coping mechanisms (Vink et al. 2015). Over time, the tendencies that an employee develops in selecting coping mechanisms can highlight their overall coping strategy: problem-focused, emotion-focused, or avoidance-focused (Losiak 2011). Employees select coping mechanisms based on their perception of the situation, personal factors, and the coping resources available (Endler & Parker, 1990; Van den Brande et al., 2016).

For example, a public servant faces a stressor caused by an overwhelming caseload. The job demand and job resource imbalance resulting from the large caseload causes the employee to feel great anxiety and uncertainty around how to proceed. An internal chronic stressor, an uncooperative client, creates a crisis, which, in turn, creates a pile-up of stressors. The employee, in deciding to cope with their pile-up, is forced to

consider what resources and actions are available. The employee decides to rely on their social belonging in the workplace (a coping resource) by asking a member of their office social network (a coping mechanism) for help handling the uncooperative client. These two constructs, while closely tied, are made distinct as coping resources are the assets used to respond to workplace stressors while coping mechanisms are the actions taken as part of the coping response.

### ***Part 3: Consequence of Coping: Employee Well-being Impacted***

The extent and impact of each coping mechanism and coping resource varies in scale and scope (Arnold 2015). There are several stakeholders impacted by the choice to cope including the organization, individual members within an organization, and individuals served by the organization. However, the primary outcome of coping is to reduce the effect of or remove the pile-up of stressors faced by the employee, making the consequences the employee experiences the primary outcome of interest. By reducing the effect of or removing the pile-up of stressors, caused by an crisis that upends the imbalance in job demands and job resources, an employee experiences increased levels of well-being (i.e., bonadaptation).

### **Empirical Examination**

The ABCX framework and its attending coping process is inherently challenging to empirically examine. In this dissertation, I focus solely on the act of coping and use the double ABCX framework to justify this focus. As part of my analysis, I make several assumptions about the coping process including:

- (a) Employee job demands and job resources are in constant competition.
- (b) Employees work to balance their job demands and job resources.
- (c) Employee perception of the job demands-job resources dichotomy allows them to tolerate a certain level of imbalance.
- (d) A crisis, whether internal or external and chronic or one-time, prompts a pile-up of job demands leaving employees overwhelmed with stressors.
- (e) The COVID-19 pandemic is a catastrophic, external crisis that has triggered the pile-up of stressors for employees.
- (f) As employees recognize the overwhelming pile-up of stressors, they have gone through the first step in cognitive appraisal and decided to cope.

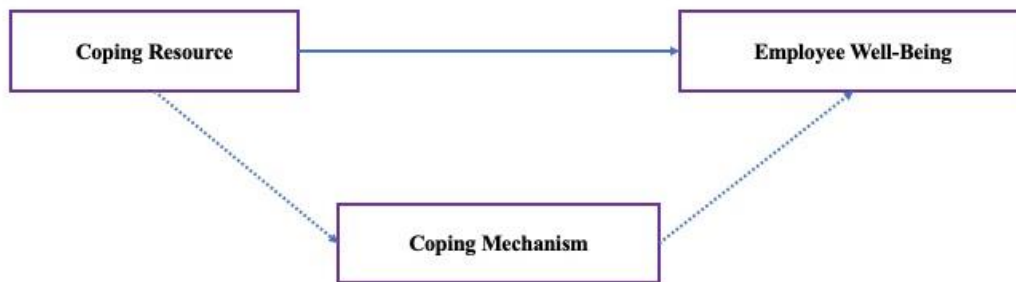
Figure 3 shows the last two stages of the coping process: the act of coping and the consequences of coping. The theoretical difference between cognitive appraisal and the act of coping has been established by previous researchers (see Lazarus & Folkman, 1984; Troop, 1998). I focus on the latter part of the coping process, assuming that employees have identified the pile-up of stressors and determined they should go through the coping process.

Many factors influence the coping process including the environment, type of stressors, length the stressor is active, the number of stressors piling up, workplace context and culture, character traits, etc. One of the most important factors in the coping process is the availability of coping resources (Folkman & Lazarus, 1984). As Lazarus and Folkman (1984) point out, "...the ways people actually cope .... depend heavily on

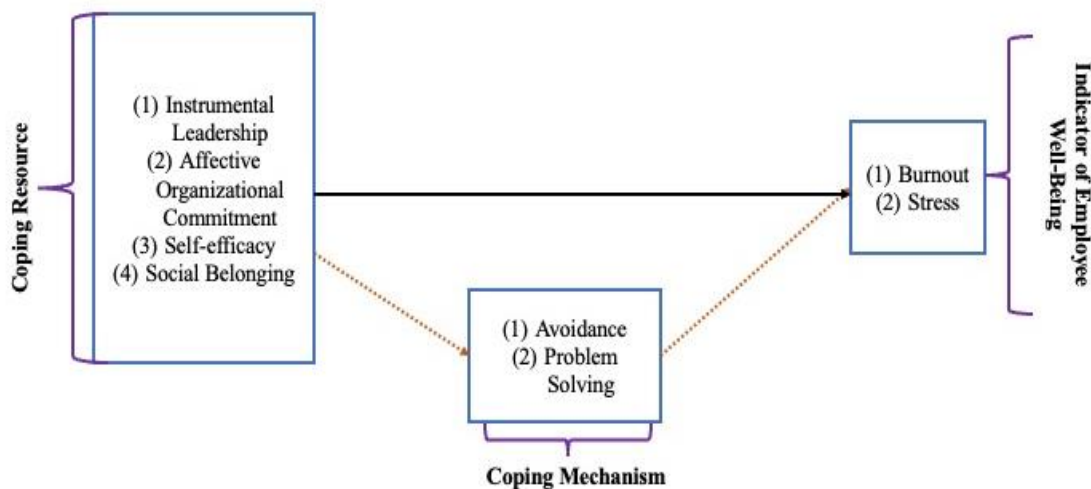


the resources that are available to them and the constraints that inhibit use of these resources in the context of the specific encounter.” (p. 158). Coping resources play a driving role in the effectiveness of an employee’s coping process and the consequences of their coping. Yet, as mentioned in Chapter 1, not a lot is known about coping resources within the public context.

**Figure 3**  
*An Empirical Model of the Coping Process*



**Figure 4**  
*An Empirical Model of the Coping Process with Variables of Interest*



## **Variables of Interest**

My research explores a lesser-known aspect of the relationship between instrumental leadership, acting as a coping resource, and employee well-being. I examine how the coping process works within this relationship and how other coping resources may impact this relationship.

### ***Instrumental Leadership as a Coping Resource***

Antonakis & House (2014) define instrumental leadership as “the application of leader expert knowledge on monitoring of the environment and of performance, and the implementation of strategic and tactical solutions.” (p. 749). Instrumental leadership behaviors focus on the daily actions leaders take to engage with employees using strategic, visionary, and outcome monitoring techniques (Antonakis & House, 2014). Instrumental leadership can be considered a more holistic expansion of leadership behaviors like transformational leadership and initiating structure (Allgood, Jensen, & Stritch, 2022). Instrumental leadership focuses on helping employees understand the organization’s overall vision. Leaders who employ instrumental leadership work to communicate and translate this vision for employees. Sharing a vision and engaging in clear communication can help employees overwhelmed with job demands by connecting their work to part of a larger mission. Helping employees connect to the vision of an organization creates a healthier workplace and provides space for employees to find joy and meaning in their work (Perlo & Feeley, 2018). Instrumental leadership consists of four factors (environmental monitoring, strategy formulation, path-goal facilitation,

outcome monitoring) (Antonakis & House, 2014) that make a leader's behavior a resource to employees seeking to cope with a pile-up of stressors.

**Environment Monitoring.** Environmental monitoring focuses on the leader's ability to recognize the conditions and challenges an organization faces and respond accordingly. Instrumental leadership engaging in environment monitoring ensure the larger goals the organization is trying to achieve can occur within the constraints on the organization (Antonakis & House, 2014). Environmental monitoring allows leaders to ensure organizational stability and create a workplace where employees can be most effective (Antonakis & House, 2014). This work to ensure stability can range from minimizing job demands to maintaining job resources while maximizing opportunities for the organization to succeed. A secure work environment, especially one where job resources are stable (Brauchli et al., 2013), is connected to increased employee success and overall well-being.

**Strategy Formulation.** Instrumental leadership moves beyond understanding and sharing a vision—those practicing instrumental leadership work to translate a vision into specific objectives. Strategic formulation revolves around communicating a vision for the organization to employees and creating specific objectives for employees to achieve that vision (Antonakis & House, 2014). Employee well-being is directly impacted by strategic formulation. Leaders leverage different strategies to ensure their organization's capabilities achieve organizational goals. Strategic formulation is not strictly a transformational or transactional behavior as followers are not always given individual attention or provided rewards or punishment as part of the strategy. Rather, instrumental

leadership focuses on using effective leadership techniques to fulfill team needs while achieving organizational goals (Antonakis & House, 2014). Overall organizational goal achievement is tied to increased employee well-being (Van De Voorde, Paauwe, & Van Veldhoven, 2012; Nielsen et al., 2017).

**Path-Goal Facilitation.** Instrumental leadership helps employees achieve objectives by removing barriers to success and providing opportunities to achieve within the organization (Antonakis & House, 2014). Instrumental leadership uses the different elements of path-goal facilitation (directive, supportive, participative, and achievement-orientation) to help employees accomplish work-related, personal goals as well as meet organizational outcomes (Robbins, DeCenzo, & Coulter, 2019). When leaders are focused on helping employees master job-related tasks and goals, employees can re-engage in their work to cope with a pile-up of stressors (Parker et al., 2012; Adriaenssens, De Gucht, & Maes, 2015). This engagement connects employees' intrinsic motivation to feelings of workplace autonomy and belonging, which is a known antidote to burnout (Schaufeli et al., 2002; Meynaar et al. 2021).

**Outcome Monitoring.** Outcome monitoring focuses on the actions leaders take to help employees learn from mistakes (Antonakis & House, 2014). Employees receive constructive feedback and support as part of their leader's efforts to monitor and support performance. Instrumental leadership provides feedback and support to employees who are learning on the job. Recognizing the humanity in employees while providing a growth-focused environment can increase the efficacy of the coping process. Leader feedback is an important tool in reducing burnout (Gong et al., 2017). With

individualized feedback and support, leaders help employees develop feelings of competence and workplace belonging (Hakanen, Bakker, & Schaufeli, 2006; Sun & Bunchapattanasakda, 2019).

Past research connects instrumental leadership to positive markers of employee well-being, like job satisfaction and high organizational commitment (Poethke & Rowold, 2017; Rowold 2014). However, many studies focus on employee well-being as a secondary outcome, rather than a primary outcome of interest, or study the relationship between leadership and employee job satisfaction (Inceoglu et al., 2018). Additionally, these studies focus on traditionally emphasized leadership behaviors, like transformational and transactional leadership (Inceoglu et al., 2018; Skakon et al., 2010). In this dissertation, I focus on the relationship between instrumental leadership and burnout, which is a negative marker of employee well-being.

### ***Burnout as a Negative Marker of Employee Well-Being***

Burnout encompasses personal, work-related, and client-related challenges (Kristensen et al., 2005). Job related burnout is a person's response to prolonged job stressors (Maslach, Schaufeli, & Leiter, 2001). Burnout can be caused from a multitude of emotional, physical, or social job stressors (Maslach, Schaufeli, & Leiter, 2001). When an employee experiences work-related burnout, they experience emotional exhaustion, become ineffective in their job performance, become more cynical about their job, and lose a sense of efficacy in the workplace (Maslach, Schaufeli, & Leiter, 2001; Kristensen et al., 2005). Kristensen et al. (2005) explain that burnout is not static. Instead, an employee's feelings of burnout vary based on the level of success in coping with their

work-related stressors (Kristensen et al., 2005). Employees who experience lower levels of work-related burnout are happier in the workplace, perform better, and are, overall, healthier, both physically and psychologically (Haar et al., 2014). Oftentimes, burnout is associated with a decline in mental health (Schaufeli, Leiter, & Maslach, 2009).

I specifically focus on work-related burnout, which refers to a person's perception of their workplace fatigue and exhaustion (both physical and psychological) (Kristensen et al., 2005). Individuals who experience burnout at a high level (i.e., self-reporting they experience elements of burnout at a very high or high degree) experience less workplace well-being overall. On the other hand, individuals who experience low levels of burnout (i.e., self-reporting they experience elements of burnout at seldom or almost never) experience healthier levels of workplace well-being. This perspective matches the continuum of adaptation found in the adapted double ABCX model where burnout, as an indicator of employee well-being, may improve or devolve based on how employees are able to use their coping resources to navigate the coping process.

### ***Stress as a Marker of Employee Well-Being***

Employee stress is a short-term negative marker of employee well-being. Stress can be caused from a multitude of emotional, physical, or social job stressors (Sohail & Rehman, 2015). While stress may result in employees experiencing adverse physical, psychosocial, and behavioral responses (Bickford, 2005), the perception of stress matters. Stress occurs when an employee's tolerance levels of imbalance between job demands and job resources are disrupted, typically due to a crisis that creates a pile-up of stressors

(Hansen & Sullivan, 2003). This shift in perception means that employees move from viewing stress as a challenge (thereby engaging employees in the work) to an intolerable number of stressors that must be dealt with (Sohail & Rehman, 2015). Employees experiencing workplace stress are at increased risk for health problems and have low job satisfaction, higher rates of absenteeism, poor workplace relationships, and less productivity (Collegian, 2006; Kelloway, Hurrell, & Day, 2008). Employee's feelings of stress vary based on their level of success in coping with work-related stressors (Hansen & Sullivan, 2003). Stress, as an indicator of employee well-being, may improve or devolve based on how employees are able to use their coping resources.

In the following chapters, I empirically examine the coping process, as situated within the larger double ABCX model and focus on how instrumental leadership reduces employee burnout and stress. In the next chapter, I develop the relationships presented in Table 1. In Chapter 4, I review the data I use in my analyses. Chapter 5 tests the relationships presented in Table 1.

**Table 1**  
*Hypotheses Tested*

Variable	Hypothesis
Instrumental Leadership (Coping Resource)	<ul style="list-style-type: none"> <li>• Hypothesis 1a: An increase in instrumental leadership is associated with a decrease in employee burnout.</li> <li>• Hypothesis 1b: An increase in instrumental leadership is associated with a decrease in employee stress.</li> </ul>
Affective Organizational Commitment (Coping Resource)	<ul style="list-style-type: none"> <li>• Hypothesis 2a: An increase in affective organizational commitment is associated with a decrease in employee burnout.</li> <li>• Hypothesis 2b: An increase in affective organizational is associated with a decrease in employee stress.</li> </ul>
Self-Efficacy (Coping Resource)	<ul style="list-style-type: none"> <li>• Hypothesis 3a: An increase in self-efficacy is associated with a decrease in employee burnout.</li> <li>• Hypothesis 3b: An increase in self-efficacy is associated with a decrease in employee stress.</li> </ul>
Social Belonging (Coping Resource)	<ul style="list-style-type: none"> <li>• Hypothesis 4a: An increase in social belonging is associated with a decrease in employee burnout.</li> <li>• Hypothesis 4b: An increase in social belonging is associated with a decrease in employee stress.</li> </ul>
Self-Distraction as a Mediator (Coping Mechanism)	<ul style="list-style-type: none"> <li>• Hypothesis 5: Self-distraction is associated with an increase employee burnout.</li> <li>• Hypothesis 6: Instrumental leadership is associated with a decrease in self-distraction.</li> <li>• Hypothesis 7: Self-distraction, as a coping mechanism, mediates the relationship between instrumental leadership and employee burnout.</li> </ul>
Planning as a Mediator (Coping Mechanism)	<ul style="list-style-type: none"> <li>• Hypothesis 8: Planning is associated with a decrease in employee burnout.</li> <li>• Hypothesis 9: Instrumental leadership is associated with an increase planning.</li> <li>• Hypothesis 10: Planning, as a coping mechanism, mediates the relationship between instrumental leadership and employee burnout.</li> </ul>



### **3: EXPLORING THE RELATIONSHIP BETWEEN COPING RESOURCES AND NEGATIVE MARKERS OF EMPLOYEE WELL-BEING**

Coping resources are the assets employees draw on when engaging in the coping process. Coping resources are an important element in an employee's ability to cope with workplace stressors. Employees rely on coping resources to address the pile-up of stressors, adjust to the situation, regain their workplace well-being, and reset their tolerance for an imbalance between job demands and job resources. Coping resources come from different sources (personal or environmental) and dimensions (horizontal or vertical). This chapter explores the different coping resources public servants draw on to respond to a pile-up of stressors, particularly the role of instrumental leadership as a coping resource. Analysis 1 answers the questions about the relationship between coping resources and markers of burnout. Specifically, I ask: "Do the coping resources of instrumental leadership, affective organizational commitment, self-efficacy, and social belonging decrease negative markers of employee well-being?"

Analysis 2 answers the question: "How do coping mechanisms mediate the relationship between instrumental leadership and employee burnout?" I examine how two opposing coping mechanisms (self-distraction and planning) mediate the relationship between instrumental leadership, as a coping resource, and employee burnout.

Understanding this relationship is critical as instrumental leadership, an environmental and vertical coping resource, can be influenced by organizations. Subsequently, leaders practicing instrumental leadership may be able to help employees engage in a healthier coping process, by choosing better coping mechanisms and reducing negative markers of

employee well-being, like burnout. Specifically, I ask, “How does the coping mechanism of self-distraction mediate the relationship between instrumental leadership and employee burnout?” and “How does the coping mechanism of planning mediate the relationship between instrumental leadership and employee burnout?” In this chapter, I develop the relationships at the heart of these research questions. I begin by discussing the coping process, reviewing the concept of employee well-being, and introducing coping resources. I specifically discuss coping resources and the hypothesized relationships to employee burnout and stress. I then explain the different coping mechanism types.

### **Conceptualizing Coping Resources <sup>4</sup>**

The primary outcome of coping is to reduce the effect of or remove the pile-up of stressors faced by the employee to allow the employee to return to a tolerated imbalance of job demands and job resources. By reducing the effect of or removing the pile-up of stressors, an employee experiences increased levels of employee well-being. Coping resources help employees maintain or increase their workplace well-being as coping resources are often linked to positive (i.e., active and engaging) coping mechanisms (Holahan, Moos, & Schaefer, 1996). Coping resources have been shown to predict psychological health and impact employee well-being (Holahan, Moos, & Schaefer,

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<sup>4</sup> All job resources are coping resources as job resources represent the capabilities of an employee to resist or respond to a pile-up of workplace stressors (McCubbin & Patterson, 1983). However, not all coping resources are job resources. For example, spirituality is considered a strong coping resource (Lazarus & Folkman, 1984; Krok, 2008). However, U.S. law mandates the separation between church and state meaning a public organization is unlikely to influence a person’s spirituality or allow overt displays of religion while serving the public. When an employee begins to experience a pile-up of stressors, their job resources effectively become coping resources.

1996). Coping resources can be sorted by their source and dimension (see Table 2), but these categories are not mutually exclusive.

**Table 2**  
*Coping Resources: Dimensions and Sources*

	Source: Environmental	Source: Personal
Dimension: Horizontal	<ul style="list-style-type: none"> <li>• Exist outside of the person</li> <li>• Material or immaterial</li> <li>• Often initiated by employee</li> <li>• More employee control over resource</li> </ul> <p><i>Examples: social belonging, job autonomy</i></p>	<ul style="list-style-type: none"> <li>• Exist inside of the person</li> <li>• Innate and developed characteristics</li> <li>• Often initiated by employee</li> <li>• More employee control over resource</li> </ul> <p><i>Examples: personality, self-efficacy</i></p>
Dimension: Vertical	<ul style="list-style-type: none"> <li>• Exist outside of the person</li> <li>• Material or immaterial</li> <li>• Often initiated by organization and or supervisor</li> <li>• Less employee control over resource</li> </ul> <p><i>Examples: salary, job security, instrumental leadership</i></p>	<ul style="list-style-type: none"> <li>• Exist inside of the person</li> <li>• Innate and developed characteristics</li> <li>• Often initiated by organization and or supervisor</li> <li>• Less employee control over resource</li> </ul> <p><i>Examples: skills gained in education/employment, affective organizational commitment</i></p>

## **Coping Resource Sources**

*Personal coping resources.* Personal coping resources are “internal options that are available in a particular stressful encounter” (Schwarzer & Taubert, 2002, p. 22). Personal resources refer to the innate and the developed characteristics of an individual (like personality, resiliency, and social skills) as well as skills and resources (like good health, financial security, and education) (Lazarus & Folkman, 1984). Personal resources are found in a variety of places including an individual’s competence and skills in the workplace, in social settings, in interpersonal relationships, and within themselves (Schwarzer & Taubert, 2002). Personal coping resources are relatively stable and include the cognitive aspects of one’s personality and individual behavior traits (Holahan, Moos, & Schaefer, 1996). Personal resources affect an individual's reactions to stress and burnout (Greenglass, 2002). Examples of personal coping resources include optimism and self-efficacy (Greenglass, 2002; Carpenter 1992).

*Environmental coping resources.* Environmental coping resources<sup>5</sup> are the external “...options that are available [for a person to cope] in a particular stressful encounter” (Schwarzer & Taubert, 2002, p. 22). Environmental resources refer to the material and immaterial elements that a person engages with daily. Environmental resources exist on many levels from organizations to geographic areas and local cultures (Lazarus & Folkman, 1984). Environmental resources range from the material (e.g., the wealth of an organization or number of employees) to the immaterial (e.g., organization norms around teamwork or the expectations of extra organizational citizenship

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<sup>5</sup> Environmental coping resources are also called social resources by some psychologists.

behaviors). Examples of environmental coping resources include social support, information, and emotional support (Greenglass, 2002; Schwarzer & Taubert, 2002).

### **Coping Resource Dimensions**

Coping resources research typically focuses on the sources of the resources. However, when considering employees in the public workplace, it is important to consider how the interaction between the employee and their organization impacts their coping resources. The element of dimension refers to how employees connect with the different aspects of the workplace that produce or influence the source of the coping resource. Two dimensions exist: vertical and horizontal. Coping resources from different sources can be found at different dimensions within the organization in relationship to the employee. For example, an employee's salary and potential job opportunities within an organization are environmental resources (Bakker & Demerouti, 2007) that come from the top down (i.e., vertical). On the other hand, the team climate or feedback about employee performance for a specific task (Bakker & Demerouti, 2007), while still environmental, comes from a lateral perspective, making these resources horizontal.

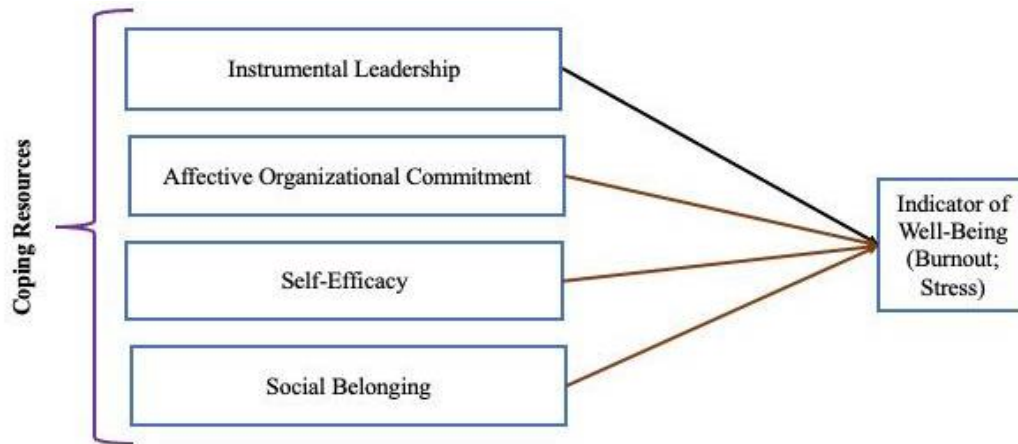
**Vertical coping resources.** Vertical coping resources are the formal, top-down coping resources that an individual obtains from their environment or person (Allgood, Jensen, & Stritch, 2022). Vertical resources are associated with positive workplace outcomes, including job satisfaction (Yang & Kassekert, 2010; Gregersen, Vincent-Höper, & Nienhaus, 2016) and are often initiated by leaders (Allgood, Jensen, & Stritch, 2022). Vertical coping resources have varying levels of tangibility and may have metrics or goals that must be met to obtain the resource, like the courses required for an

educational degree. Employees tend to have less control over their access to vertical coping resources and depend on other factors, like coping mechanisms or the environment to engage these coping resources. Examples of common vertical, personal coping resources include educational certifications or income levels. Examples of common vertical, environmental coping resources include formal mentoring or engaged leadership.

**Horizontal coping resources.** Horizontal coping resources are typically less formal than vertical resources. Horizontal coping resources are assets that employees have more control over and access when the employee wants to use the resource (Allgood, Jensen, & Stritch, 2022). Horizontal resources are associated with creative problem solving and effective coping actions (Chiaburu & Harrison 2008; Perreault et al., 2017). Horizontal coping resources also have varying levels of tangibility, but are often less tangible. Examples of common horizontal, personal coping resources include self-efficacy or resilience. Examples of common horizontal, environmental coping resources include social belonging or job autonomy. I focus on the coping resources available to public employees that can be affected by an organization's or leader's choices. Figure 5 highlights the conceptual model being empirically tested. I examine how changes in different types of coping resources (instrumental leadership, affective organizational commitment, self-efficacy, and social belonging) are related to changes in two negative markers of employee well-being (burnout and stress).

**Figure 5**

*Conceptual Model: Coping Resources and Employee Well-Being*



### **Four Coping Resources**

#### **Instrumental Leadership**

Instrumental leadership occurs when leaders combine their expertise with environmental and outcome monitoring and strategic decision making to achieve organizational goals (Antonakis & House, 2014). When leaders use instrumental leadership, they work to help their employees connect with the organization while also addressing the day-to-day needs of followers. Instrumental leadership has four specific sub behaviors: environmental monitoring, strategy formulation, path-goal facilitation, and outcome monitoring (Antonakis & House, 2014). Instrumental leadership is an environmental, vertical resource as it emanates from the organization itself, is formal in nature, and depends on a leader's activities within the organization (Allgood, Jensen, & Stritch, 2022). Instrumental leadership works to translate the organization's overall vision into actionable objectives for employees. Instrumental leadership has been connected to

other markers of employee well-being in the past including increased job satisfaction and high organizational commitment (Poethke & Rowold, 2017; Rowold 2014).

Instrumental leadership reduces negative markers of employee well-being by altering an employee's environment. Instrumental leadership focuses on reducing the barriers employees face while helping employees connect to the organization's vision and reach both the organization's and employee's stated goals. Specifically, managers practicing instrumental leadership provide individualized feedback and support to employees struggling to overcome obstacles. During periods of uncertainty, instrumental leadership can reduce ambiguity and reset the focus of an employee's work to reduce the pile-up of job stressors (Allgood, Jensen, & Stritch, 2022). Employees who perceive instrumental leadership behaviors focused on monitoring the environment and path-goal facilitation may respond by relying on healthy (i.e., active and positive) coping mechanisms; employees acting with healthy coping mechanisms are more likely to reduce negative markers of employee well-being. On the other hand, leaders who do not use instrumental leadership behaviors can increase job stressors by failing to identify and remove barriers to employee success. Additionally, leaders forgoing instrumental leadership behaviors may not identify what needs to change within an organization to support employees or struggle to effectively communicate their vision. The absence of instrumental leadership means that employees may lack specific objectives or gain the knowledge necessary to overcome mistakes and reduce future job demands. As instrumental leaders engage in behaviors that reduce the uncertainty of an employee's environment, employees should experience less burnout and stress. I hypothesize:



*Hypothesis 1a: An increase in instrumental leadership is associated with a decrease in employee burnout.*

*Hypothesis 1b: An increase in instrumental leadership is associated with a decrease in employee stress.*

### **Affective Organizational Commitment**

Affective organizational commitment refers to an employee's emotional relationship with the organization (Benevene et al., 2018; Vandenberghe & Bentein, 2009). Employees demonstrating affective organizational commitment are likely to engage in extra organizational citizenship behaviors, like supporting co-workers or working overtime (Solinger et al., 2008). Affective organizational commitment is a personal, vertical resource. While organizations and leaders can encourage affective organizational commitment by motivating employees to align their personal goals with the organization's goals (Lok & Crawford, 2001; Kim & Brymer, 2011), the loyalty to the organization's values comes from within the person (Mercurio, 2015). Employees with high affective organizational commitment have higher levels of positive markers of employee well-being, like job satisfaction (Benevene et al., 2018; Mercurio, 2015) and experience fewer negative markers of employee well-being, like absenteeism and stress (Meyer et al., 2002).

Affective organizational commitment reduces negative markers of employee well-being by altering an employee's personal behavior in the workplace. Employees with high levels of affective organizational commitment are more likely to engage in

behaviors that build healthy workplace cultures that can reduce employee job demands. Additionally, employees who have high levels of affective organizational commitment feel like they belong within their workplace and find value in being successful and achieving organizational goals. Having a high sense of affective organizational commitment helps employees create meaning in their work. Thus, when employees are faced with a pile-up of stressors, employees may be more willing to actively engage in the coping process to maintain the value they place in the workplace. On the other hand, employees without a sense of affective organizational commitment are detached from the organization's missions and goals. Employees may struggle to see how the job demands created by organizational problems are truly their own, even though employees are still dealing with the stressor. Employees with a low level of affective organizational commitment struggle to find meaning in their work and may show a lower tolerance for increased job stressors (Meyer et al., 2002). As employees with higher levels of affective organizational commitment experience more meaning and belonging in their work, employees should experience less burnout and stress. I hypothesize:

*Hypothesis 2a: An increase in affective organizational commitment is associated with a decrease in employee burnout.*

*Hypothesis 2b: An increase in affective organizational commitment is associated with a decrease in employee stress.*

## **Self-efficacy**

Self-efficacy refers to a person's belief that they can meet a situation's demands (Chen, Gully, & Eden, 2001; Bandura, 1994; Greenglass, 2002). This coping resource inherently relies on an individual's personal motivations and beliefs about their resources and capabilities in any given situation. People with high levels of self-efficacy are confident in their ability to tackle many different scenarios in an effective manner, even when things are difficult (Chen, Gully, & Eden, 2001). Individuals with high self-efficacy believe they can achieve personal and professional goals *even when* things are difficult. Self-efficacy is a personal, horizontal resource as self-efficacy emanates from the employee, is informal in nature, and depends on an employee's belief in their capacity to accomplish hard things. Individuals with high self-efficacy feel they can meet future challenges with competence (Marsh et al., 2019).

Self-efficacy reduces negative markers of employee well-being by altering an employee's perceptions. Self-efficacy lowers feelings of stress and levels of burnout (Shoji et al., 2016) by increasing an individual's confidence and trust in their own abilities and decision-making skills. Employees with strong self-confidence and trust in their own capacity to overcome adversity may move quickly to counteract feelings of stress or burnout. Employees with high self-efficacy believe they can achieve set goals and important outcomes. Individuals with self-efficacy not only believe they can perform their job well, regardless of workplace challenges, but also believe they have competence in a variety of tasks. When confronted with a pileup of stressors, employees with high self-efficacy may be able to respond more effectively due to the variety of skills they

have confidence in using. When an individual has low self-efficacy, they are more susceptible to burnout (Greenglass, 2002) as they do not believe they can overcome the stressors causing their burnout or stress. Individuals with low self-efficacy doubt their abilities to meet goals in challenging times and in day-to-day situations, creating more opportunities for stressors to press on employees leading to increased burnout and stress. Individuals with low self-efficacy may also compare themselves to peers with higher self-efficacy leading to increased levels of stress and burnout when an employee perceives their performance to be lacking. As employees engage their self-efficacy and trust in their own abilities, employees should experience less burnout and stress. I hypothesize:

*Hypothesis 3a: An increase in self-efficacy is associated with a decrease in employee burnout.*

*Hypothesis 3b: An increase in self-efficacy is associated with a decrease in employee stress.*

## **Social Belonging**

Social belonging refers to the belief that employees have a workplace social network they can turn to when dealing with daily workplace problems (Linos, Ruffini, & Wilcoxon, 2021). Social belonging, and close relationships to individuals in general, are important coping resources. When an individual has strong relationships to draw upon as a coping resource, they can use more active, problem focused coping mechanisms (Greenglass, 2002). Social belonging is an environmental, horizontal resource as social belonging emanates from the organization itself, is informal in nature, and depends on

networking activities within a peer group (Audenart et al., 2020; Allgood, Jensen, & Stritch, 2022). Previous research links social belonging to a reduction in burnout due to a sense of belonging and work engagement (Bakker, Demerouti, & Euwema, 2005; Broadhead et al., 1983; Hakanen, Bakker, & Demerouti, 2005; Linos, Ruffini, & Wilcoxon, 2021).

Social belonging can alter an employee's work environment. Employees who experience higher social belonging feel there is a place for them in the workplace, even when things are not going well at work. When an employee is struggling with overwhelming job demands, social belonging helps lower burnout as employees believe they can talk to colleagues or leaders about their challenges. Importantly, employees who have social belonging feel as though they can talk about day-to-day problems, not just larger issues. This idea that employees can talk about smaller workplace problems when tapping into a workplace social network highlights employees' feelings of work engagement and belonging. When an employee experiences low social belonging, they are more isolated within the workplace and question their place in the organization, especially when bad things happen at work. Employees with low social belonging may feel lonely without someone to talk to when daily challenges or a pile-up of stressors occurs. This loneliness may cause employees to withdraw leading to increased levels of burnout and stress. When employees experience higher levels of social belonging, they can identify how they fit in the workplace and who they can turn to for support, which should lead to less burnout and stress. I hypothesize:

*Hypothesis 4a: An increase in social belonging is associated with a decrease in employee burnout.*

*Hypothesis 4b: An increase in social belonging is associated with a decrease in employee stress.*

### **The Coping Process and Coping Mechanisms**

As part of the coping process, employees go through cognitive appraisal, assessing the threat the pile-up of stressors causes, their ability to respond, the resources at their disposal, and the availability of different coping mechanisms (Jian, Lee, & Xu 2020; Rovira, Fernandez-Castro, & Edo 2005). During this process, employees begin to engage in the coping process by trying to answer questions like, “What tools can I use to cope?” and “What actions am I going to take to cope?” Much of the coping research in public administration focuses on coping mechanisms, or the actions employees take (see Tummers et al. 2016 for a review of the literature). However, coping resources can influence the efficacy of coping mechanisms and are critical elements of the coping process.

One way to understand the symbiotic relationship between coping resources and coping mechanisms is to consider the approach a player takes during quest-based video games. A player is confronted with a challenge, like an approaching unknown character, and has different choices to make in response to the problem. The player reviews the actions available, including fleeing to a different part of the game or confronting the challenge. While making the decision to act, the player will search through their backpack of tools available in that scenario. As the player reviews the resources

available, they determine what actions will be most successful, based on the resources available and the situation at hand. Based on their desire to engage with the situation, the resources available, and their ability to use those resources, a player will then act. Similarly, during the coping process, employees use the coping resources available to them to determine what coping mechanisms to engage.

Coping resources are used in conjunction with coping mechanisms during the coping process. Coping mechanisms are the actions an employee takes that helps the employee connect with their coping resources, which ultimately impact the employee's well-being. Coping resources can influence how an employee engages with a selected coping mechanism (Holahan & Moos, 1987). Individuals with strong personal and environmental resources may be more likely to use active and engaged coping mechanisms (Holahan & Moos, 1987; Terry, 1994; Conner-Smith & Flachsbar, 2007).

During the coping process, employees engage in specific actions to manage their stressors (Van den Brande et al. 2016). Coping mechanisms can typically be sorted into three categories: problem-focused, emotion-focused, and avoidance-focused (see Table 3) (Endler & Parker, 1990; Losiak, 2011; Folkman & Lazarus, 1984). Within each of these coping mechanism categories, there are two types of responses employees employ: cognitive or behavioral. Problem-focused coping mechanisms are proactive and seek to manage the stressor and related situation through resolution, de-escalation, or other forms of alteration (Bhagat et al., 2010; Lazarus & Folkman, 1984). Emotion-based coping mechanisms also seek to manage stressors, but focus on alleviating, or at least reducing, the psychological discomfort and distress that accompany an imbalance between job

demands and job resources (Bhagat et al., 2010; Lazarus & Folkman, 1984). Both problem-focused and emotion-focused coping mechanisms are active coping mechanisms. Active coping mechanisms engage employees and provide positive psychological and physiological consequences (Waugh, Shing, & Furr, 2020; Jun et al., 2019). On the other hand, avoidance-focused mechanisms are based on escape, with the focus not on managing the stressors, but on finding places where the stressor doesn't exist, ultimately leading to more severe psychological distress (Losaik, 2011). Avoidance-focused coping mechanisms, like disengagement or distraction, are typically employed when employees face a stressor they believe they are unable to cope with (Waugh, Shing, & Furr, 2020).

**Table 3**  
*Coping Mechanisms Matrix*

		Cognitive Responses	Behavioral Responses
Active/Engaged Coping Mechanisms	Problem-Focused Mechanisms	Focused on <i>removing</i> the stressors (examples: goal setting or planning)	Focused on <i>removing</i> the stressors (examples: confrontation or prioritization)
	Emotion-Focused Mechanisms	Focused on <i>managing</i> emotions (examples: acceptance or focusing on the positive)	Focused on <i>managing</i> emotions (examples: seeking emotional support or false emoting)
Inactive/Passive Coping Mechanisms	Avoidance-Focused Mechanisms	Focused on <i>escaping</i> stressors (examples: passivity or denial)	Focused on <i>escaping</i> stressors (examples: self-distraction or distancing)

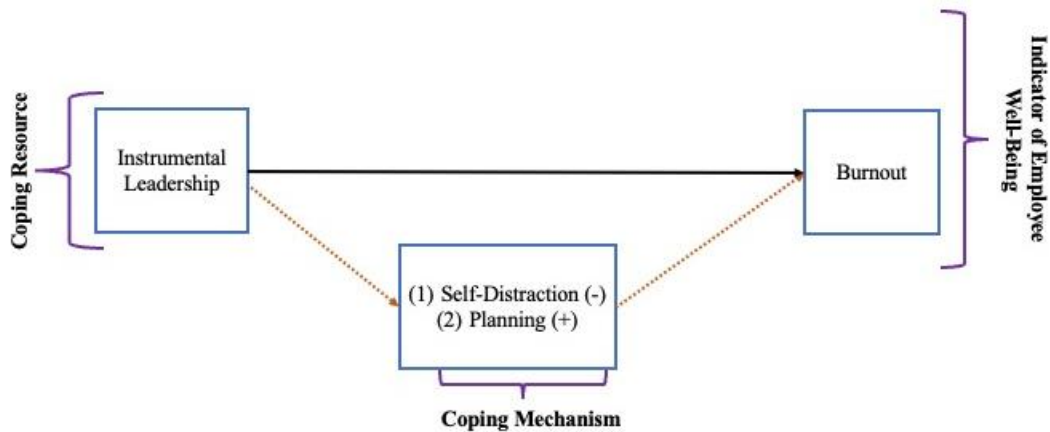


Positive coping mechanisms can be harnessed by individuals to deal with stressors (Folkman, Lazarus, and Dunkel-Schetter 1986) and are especially critical to front-line employees' ability to serve their clients (Bourdeaux, 2008; Hype & Hill, 2007). Negative coping mechanisms tend to produce negative outcomes (Armstrong-Stassen, 2004; Cohen, 2018). When employees engage in active coping mechanisms, like establishing clear expectations, it increases stability in employee environments & behaviors (Schott, Steen, & Van Kleef, 2019). Some researchers believe that the best predictor for the effectiveness of a coping mechanism is the ability to control the stressor itself (Terry, Tonge, & Callan 1995). Emotion-based coping mechanisms can fail to address the root of the stressor (e.g., the imbalance between job demands and job resources), which is why emotion-based coping mechanisms are sometimes associated with maladaptation (Terry, Tonge, & Callan, 1995).

The role of coping resources in the coping process can be visualized in a linear matter (see Figure 6). Empirically, coping resources precede the use of coping mechanisms as coping resources are the tools used during the act of coping (Holahan, Moos, & Schaefer, 1996; Lazarus & Folkman, 1984). When an employee uses active and engaging coping mechanisms, focused on problem solving or resolving emotions, they are more likely to reduce negative markers of employee well-being, like burnout (Li et al., 2017). An employee's coping mechanism helps explain the relationship between employee coping resources and employee well-being. Coping resources influence the efficacy of a selected coping mechanism, which is related, in turn, to the employee's state of workplace well-being. I examine two types of coping mechanisms: an inactive,

passive, avoidance-focused behavioral response (self-distraction) and an active, engaging, problem-focused cognitive response (planning). I pick these two coping mechanisms because each mechanism is commonly used by employees to deal with workplace stressors (Parker & Endler, 1992). While there is no mutual exclusion—meaning that an employee may choose to utilize one or multiple coping mechanisms from within different categorical responses (Vink et al. 2015)—I examine each coping mechanism separately to better understand the empirical relationship. Additionally, these two coping mechanisms are unlikely to be used at the same time due to the opposition in both focus and outcomes.

**Figure 6**  
*Conceptual Model: Coping Mechanisms as a Mediating Variable*



### **Coping Mechanism: Self-Distraction**

Self-distraction is an inactive and passive coping mechanism focused on escaping stressors through behavioral choices (Parker & Endler, 1992). Employees commonly rely on avoidance-focused coping mechanisms to avoid a pileup of stressors (Hershcovis et al., 2018). For example, a teacher has been managing the imbalance between job demands and job resources. However, the COVID-19 pandemic, acting as a crisis, disrupts the teacher's tolerated balance between job demands and job resources, leading to a pile-up of stressors. When the teacher assesses their capacity to cope with their pile-up of stressors, they identify that the pile-up of stressors is too overwhelming to handle and the best action to take is to avoid dealing with the pile-up, even if helpful coping resources are available and were used to help the teacher work on improving their workplace well-being. The teacher may then engage in non-work or non-essential work activities to purposefully create distance from the pileup leading to the potential exacerbation of manifestations of negative employee well-being, like burnout. As a result, the employee experiences a maladaptive coping process.

Avoidance-focused coping mechanisms are tied to increases in negative markers of employee well-being, like stress and burnout. Self-distraction, as an avoidance-focused coping mechanism, allows employees to minimize the seriousness of their situation by removing the negative emotional burden of stressors and keep their stressors at a distance (Cortina & Magley, 2009). Employees may prefer using self-distraction as a coping mechanism when they feel they have less control in their situation, including the ability

to directly eliminate or change the job demands causing the pile-up of stressors (Hershcovis et al., 2018; Ng, Shao, & Liu, 2016).

As employees evade dealing with the pile-up of stressors, their feelings of burnout increase. Avoidance-focused mechanisms allow the employee to disengage from the situation, depersonalize their situation, or fail to develop appropriate responses and skills, all behaviors that increase burnout (Bittner et al., 2011; Montero-Marin et al., 2014; Friganoviü et al., 2019). While some self-distraction oriented coping mechanisms can provide positive benefits to employees (Waugh, Shing, & Furr, 2020), these self-distractions are typically categorized as inactive passive, avoidance-focused coping mechanisms, but temporary reprieves from engaging with stressors (i.e., self-care). Self-distraction, as a coping mechanism, has been tied to decreases in workplace performance due to employees prioritizing distracting activities over coping with the pile-up of stressors (Ng, Shao, & Liu, 2016). Employee personalities can be impacted by avoidance-focused coping mechanisms as employees are more likely to abandon their progress towards goals and increase their belief in conspiracy theories (Marchlewska et al., 2021). However, when employees decrease their involvement in avoidance-focused coping mechanisms, positive markers of employee well-being, like better job performance (Li et al., 2017) or sense of personal accomplishment (Pejuškoviü et al., 2011), are more likely to occur. I hypothesize:

*Hypothesis 5: Self-distraction is associated with an increase in employee burnout.*

While coping resources do not predict the use of coping mechanisms, coping resources might influence the effectiveness of a coping mechanism. Instrumental leadership may find success in helping employees decrease their use of self-distraction by tying the culture of the organization to active and engaged coping mechanisms (Welbourne et al., 2006; Shin et al., 2014). Instrumental leadership works to provide employees with support in moving towards their work goals and providing constructive feedback on work performance (Antonakis & House, 2014). This use of path-goal facilitation may force employees to confront the pile-up of stressors while placing distractions to the side in response to leader feedback. Instrumental leadership relies on path-goal facilitation to re-engage their employees in the work and provide individual support to overcome the pileup of stressors. Additionally, as leaders recognize the threat of distractions to employees' coping successfully, they formulate a strategy to encourage employees to use active and engaged coping mechanisms rather than self-distraction (Welbourne et al., 2006). Leaders practicing instrumental leadership can craft specific support systems to provide feedback to their employees that encourages alternate coping mechanisms. I hypothesize:

*Hypothesis 6: Instrumental leadership is associated with a decrease in self-distraction.*

Instrumental leadership should encourage employees to use less avoidant-focused coping mechanisms. In turn, the employee should experience less burnout. The impact of

the chosen negative coping mechanism is muted by the positive coping resource, instrumental leadership. Previous research has demonstrated that avoidance-focused coping mechanisms, like self-distraction, act as a mediator between personal coping resources, like personality, and negative markers of employee well-being, including stress and burnout (Polman, Borkoles, Nicholls, 2010; Hinds et al., 2015; Hamid & Musa, 2017; Hutchins, Penney, & Sublett, 2017). This relationship may stem from the withdrawal employees experience when using an avoidance-focused coping mechanism, which leads to increased burnout, more emotional exhaustion, and increased stress (Polman, Borkoles, Nicholls, 2010; Treglown et al., 2016). I hypothesize:

*Hypothesis 7: Self-distraction, as a coping mechanism, mediates the relationship between instrumental leadership and employee burnout.*

### **Coping Mechanism: Planning**

Planning is an active and engaged mechanism focused on removing stressors through a cognitive, problem-focused response (Parker & Endler, 1992). For example, a librarian has been able to confidently manage the imbalance between job demands and job resources. However, when the COVID-19 pandemic, acting as a crisis, shuts down public libraries, the librarians' tolerated balance between job demands and job resources is upended, leading to a pile-up of stressors. When the librarian assesses their capacity to cope, they identify what stressors they are experiencing as part of the pile-up. While engaging their available coping resources, like the support of a leader to address the pile-

up of stressors, the librarian plans their next steps and crafts a strategy to solve the problem. The planning coping mechanism has a catch as the librarian does not necessarily act on those plans. Instead, the librarian may find that the mere act of planning can offset the negative impact of the pileup of stressors on their workplace well-being. Having a plan allows employees to regain a sense of control over the situation and feel comfort in reestablishing the balance between job demands and job resources. As a result, employees should experience a bonadaptative coping process.

Planning is a proactive, cognitive coping mechanism where employees consider the future and the outcomes they desire (Aspinwall, 2014; Carver, Scheier & Weintraub, 1989). Employees engaging in a planning coping mechanism focus on creating plans to address the pile-up of stressors (Carver, Scheier and Weintraub, 1989). Employees using a planning coping mechanism think about the best approach to resolving the problem, but do not always tie the plan to direct action (Lazarus & Folkman, 1984). If employees using planning as a coping mechanism do not move to implement their plans, they may not be successful in their coping process (Lazarus & Folkman, 1984). Employees may fail to connect their plans to action due to a lack of skill on their part or the content of the plan cannot be achieved (Aspinwall, 2010). Planning allows employees to exercise control over a situation by restructuring the task they need to accomplish (Paden & Buehler, 1995). Individuals using planning as a coping mechanism may be able to identify new information that helps their coping process succeed (Aspinwall, 2010). Focusing on the future may help employees feel more control in addressing the pile-up of stressors (Prenda & Lachman, 2001). Employees engaged in planning as a coping

mechanism may be less likely to experience burnout and other negative markers of employee well-being (Lemonaki et al., 2021).

*Hypothesis 8: Planning is associated with a decrease in employee burnout.*

Leaders employing instrumental leadership may find success in helping employees increase their use of planning as a coping mechanism. Instrumental leadership encourages employees to consider barriers to achieve their goals and helping employees implement plans (Antonakis & House, 2014). Instrumental leadership may encourage employees to plan around environmental barriers that could prevent the employee from fully coping with the pile-up of stressors. Additionally, employees who experience instrumental leadership are encouraged to focus on the organization's goals and receive specific attention from their supervisor to meet their needs as part of the organization's strategy. Being involved in a leader's strategic formulation may empower employees or motivate employees to set their own plans and cope with the pile-up of stressors (Callan, 1993; Storseth, 2004). Employees may also rely on constructive feedback from leaders to improve their performance and plan their approach to coping (Aspinwall, 2010; Ashford et al., 2003). As supervisors practice instrumental leadership, they create a growth-focused environment that can enable employees to set their own plans, cope with the pile-up of stressors, and bring employee job demands-job resources back to the preferred balance.



*Hypothesis 9: Instrumental leadership is associated with an increase in planning.*

Instrumental leadership encourages employees to think about what needs to be accomplished to fully engage with the organization's mission (Parker et al., 2012; Adriaenssens, De Gucht, & Maes, 2015). This focus on connecting the task of coping with a pile-up of stressors to fulfill the organization's mission can employee decrease burnout. Employees may be motivated to create a plan to cope with their pile-up of stressors. Previous research demonstrates that problem-solving focused, cognitive coping mechanisms, can act as a mediator between things like psychological capital (Rabenu, Yaniv, & Elizur, 2017), satisfaction (Maier, K., & Surzykiewicz, 2020), or social support (Vaculíková & Soukup, 2019) and markers of employee well-being. This mediating relationship may occur as instrumental leadership focuses on things like path-goal facilitation and environmental monitoring, which may incentivize an employee to engage in their own planning thus lowering their burnout (Otto et al., 2019). I hypothesize:

*Hypothesis 10: Planning, as a coping mechanism, mediates the relationship between instrumental leadership and employee burnout.*

## **4: DATA**

Collecting data around personal coping experiences is always a challenge, regardless of the technique used. One of the greatest challenges facing researchers interested in coping resources is creating data sets that reflect the time required to work through the coping process. A longitudinal research design is necessary to capture the work required to cope with stressors. In my research, I leverage a longitudinal design to capture the use of coping resources by a local government's employees. In this chapter, I explore the data collection process, providing context and explaining the sample pool. I discuss the items used to empirically measure the relationship between coping resources and employee well-being and describe the methodology I use to analyze the data.

### **Data Collection Process**

The survey data was collected in two time periods (July-August 2021 & November-December 2021) from employees for a local government (City A) in the southwest United States. The survey was included as part of a leadership development program that focused on identifying the stability of certain leadership behaviors (not instrumental leadership) over time. Leaders were invited to participate in the training program and participation was credited as a professional development opportunity by City A's human resources department. The research team worked with administrators in City A to identify eligible participants—city leaders with three or more direct reports. Eligible leaders were offered an opportunity to participate in a two-day leadership development training. The workshops focused on leaders with three or direct reports to

provide more anonymized employee feedback about the leader's behavior. Of the leaders who were eligible to participate in the training, 73 supervisors volunteered to participate.

Training sessions took place in August 2021 and December 2021. Participants were informed that participation in the program was voluntary, but the leader and their direct reports would be surveyed to provide customized, anonymized, feedback on the leader's strengths and weaknesses. City A's human resources department generated a list of 589 direct reports for the participating leaders to create a sample pool, allowing for employees to be matched to their assigned leaders. 454 employees within this pool completed the initial survey (77.08%). In December 2021, 311 employees<sup>6</sup> (68.5% or 214 first wave respondents) completed an identical, second survey about their leader's behaviors and other employee well-being questions. Both leaders and employees answered questions about perceived leadership behaviors, coping resources, and other workplace issues, including turnover and public service motivation. Leaders also responded to a Big Five personality assessment. Finally, both leaders and employees self-reported on various personal characteristics including age, gender, education level, and tenure with the organization. The HR department provided information on the respondent's department.

### **Data Collection Time Frame**

The first electronic survey was distributed at Time 1 (July/August 2021). Leaders who completed the first training session, along with their direct reports, received an

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<sup>6</sup> Some employees only completed the second wave survey.

identical survey four months later at Time 2 (November/December 2021). All contact with program participants and their direct reports originated from City A’s human resources department on behalf of the research team. After the initial invitation to participate in the survey, leaders and their direct reports received reminders from City A’s human resources department (see Table 4).

**Table 4**  
*Data Collection Timeline*

Email to Sample	Time 1	Time 2
Initial Invitation	July 27, 2021	November 9, 2021
Reminder 1	August 4, 2021	November 16, 2021
Reminder 2	August 11, 2021	November 22, 2021

**Sample information**

Table 5 highlights some demographic characteristics around the employees who are included in my analysis. Employee respondents are around 46 years old and have a job tenure with City A of eight years. Most respondents are female (61%) and have at least some college with many employees indicating they possess a two-year (10%) or four-year (37%) degree (see Appendix A for full breakdown of employee characteristics). At Time 2, respondents report a low perception of personal stress from the previous three months; this perception of stress increased in the three months following the first survey.

**Table 5**  
*Summary Statistics for Employee Characteristics*

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
<b>Panel Dataset</b>					
Employee Gender <sup>1</sup>	201	0.39	0.49	0	1
Employee Age <sup>2</sup>	201	45.49	11.75	19	1
Employee Tenure in Position <sup>3</sup>	208	7.90	7.07	1	1
<b>Time 2 only</b>					
Employee Gender <sup>1</sup>	249	0.42	0.49	0	1
Employee Age <sup>2</sup>	249	45.62	11.43	19	1
Employee Tenure in Position <sup>3</sup>	263	8.24	7.22	1	1

*Notes: N varies as questions regarding personal characteristics (like age and gender) did not require an answer.*

<sup>1</sup> *Dummy variable (0=male and 1=female).*

<sup>2</sup> *Range: 19 – 73.*

<sup>3</sup> *Range: 1 – 36.*

### **Information on Department Distribution**

Employees involved in the study come from a variety of city departments. I identified the departments using the leader’s subdepartment’s placement on City A’s organizational chart. Of the city’s 18 departments, 11 are represented along with one (1) grouping of sub departments created by the city charter. Departments excluded from the sample pool tend to be special economic groups focused on development and preservation, although the fire department and intergovernmental relations are not represented (see Appendix A for a full breakdown of departments included in the dataset).

From the 311 employees surveyed, 214 employees responded at both Time 1 and Time 2. I use this sample to create a panel balanced on the burnout variable. I provide

specific descriptive statistics for both the panel data and the Time 2 data in Chapter 5. I ran f-tests to compare (a) the difference between employees in the larger sample who have a response for the burnout variable and those employees in the larger sample do not have a response for the burnout variable and (b) the differences between employees included<sup>7</sup> and not included in the panel as a matter of attrition. It appears that, on average, the dropped observations for those who do not have a response for the burnout variable are not statistically different from the observations retained both on the basis of age, gender, education, and tenure with the city and for each of the key variables (see Appendix A for detailed results). It appears that the dropped observations for those employees not included in the final panel are not statistically different from the observations retained both on the basis of age, gender, education, and tenure with the city and for each of the key variables.

### **IRB Approval**

All participants consented to participate in the survey and were provided with an informed consent notice. Participants, both leaders and direct reports, were informed that the purpose of the survey was to identify the stability of leadership behaviors over time for local government supervisors. The survey itself presents a minimal level of harm to subjects. Although asking participants questions about their organization and team environment and employee well-being presents an opportunity for exacerbated mental

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<sup>7</sup> To be included in the panel data sample, an employee had to complete the survey at both Time 1 and Time 2. Additionally, the completed surveys at both Time 1 and Time 2 must have had an answer to the items measuring burnout.

stress, participation in the survey was voluntary and no answers were required. This voluntary participation was also noted in the informed consent section preceding the survey. Leaders received a guarantee of anonymity when results were presented on general trends within City A to the city's general leadership team. Direct reports were provided assurances of anonymity in their responses, with an emphasis on the anonymity of their responses both to the city's general leadership team (when reporting trends in the organization) *and* in any reports made for their direct supervisor.

Leader respondents received two incentives to participate in the leadership development program (and subsequently the survey). First, participation in the leadership development program was presented as an opportunity to collect professional development credit from City A's human resources department. Second, leaders who participated in the leader development program received individualized feedback on their leader behavior and the opportunity to engage in one-on-one coaching calls with the training session presenter. These incentives may have encouraged leaders to ask employees to participate in the survey, even though employees did not receive an incentive to participate.

### **Accessibility of Survey**

Surveys were administered through Qualtrics. However, the accessibility of the surveys for individuals with disabilities was not tested prior to survey implementation. A review of the accessibility of the survey after implementation showed some barriers, due

to specific question formats, may have existed, but major accessibility challenges, including mobility, vision, and hearing barriers were not present.

## **Measurement**

This section discusses the validity and reliability of each measure. All item factor loadings from the survey used in this dissertation can be found in Appendix A. For items are measured at Time 1 and Time 2, I test the measurement invariance of each latent variable. Identifying the measurement invariance ensures the same meaning of the construct is captured at both points in time (Putnick & Bornstein, 2016). I chose not to rely solely on a likelihood ratio test as an indicator of invariance as the sensitivity of findings increases with larger sample sizes and can discount ordinal measurement units (Merkle, Fan, & Zeileis, 2014). Instead, I test measurement invariance using a structural equation modeling (SEM) framework relying on confirmatory factor analysis (CFA) (Putnick & Bornstein, 2016). I rely on the asymptotic distribution-free (ADF) approach to suspend the assumption of normal distribution for latent variables, which creates more efficient estimates (Stata, 2021). Using the SEM-CFA framework allows me to explore how each item loads on the latent variable of interest at each point in time.

Putnick and Bornstein (2016) lay out the four tests required to measure invariance: configural, metric, scalar, and strict.<sup>8</sup> The configural test examines the equivalence in how the items load on the latent variable both freely and when the items are fixed at 0 (Putnick & Borstein, 2016). If configural invariance is determined, it means

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<sup>8</sup> See Putnick & Bornstein (2016) for a further discussion on the overlap between the procedures described by Widman & Reiss (1997) and Vandenberg & Lance (2000), which led Putnick & Bornstein to discard unnecessary testing procedures.



that the construct's item organization is the same at both points in time. The metric test examines how each item contributes to the latent variable across both time periods (Putnick & Borstein, 2016). The focus of a metric test is the overall model fit versus the configural invariance model. The scalar test focuses on the mean differences in the shared variances of the items loading onto the latent variable (Putnick & Borstein, 2016). A scalar test ensures that items are measured at Time 1 are equivalent to items are measured at Time 2. Finally, the residual test examines variance equivalence (including measurement error) across both samples (Putnick & Borstein, 2016).

### **Instrumental Leadership**

Instrumental leadership is leader behaviors focusing on the day-to-day actions that support and connect their employees to the organization and its mission. An environmental, vertical coping resource, instrumental leadership provides employees with information about their environment, feedback about their performance, and an overall vision of the organization's aims. I use instrumental leadership as my primary variable of interest. I measure instrumental leadership using a scale developed by Antonakis & House (2014). As instrumental leadership is measured at Time 1 and Time 2, I test the measurement invariance of the variable. The specified model fits well ( $\chi^2(32)=42.26$  ( $p >.05$ ), CFI=0.953, TLI=0.918, SRMR=0.095, RMSEA=.039); there is no statistically significant difference from the constrained model ( $\chi^2(28) = 40.773$ ,  $p =0.06$ ). I find that the instrumental leadership variable is invariant across all four tests (see Appendix A for a table displaying the score tests results). The factor structure fits well across both time

periods (configural test), the intercepts are equivalent in both time periods (metric test), the error variance is equivalent in both time periods when factor loadings and intercepts are fixed (scalar test), and the means do not differ significantly from zero across both time periods (strict test). After establishing measurement invariance, I examine the reliability of the instrumental leadership measure. I average the eight items, which are measured on a five-point Likert scale; the scale has a Cronbach's alpha of .95. The eight items correlate well with each other at Time 1 and Time 2 (see Appendix A). Because the survey was conducted during a period of leadership training (not focused on instrumental leadership), instrumental leadership may experience a boost over time as leaders became more self-aware of their leadership behaviors.

## **Burnout**

Burnout refers to an employee's exhaustion, both emotional and physical, and is an indicator of negative employee well-being. When employees experience workplace burnout, they display cynicism, withdraw from the organization, and lose their sense of self-efficacy (Kristensen et al., 2005). I measure burnout using Kristensen et al. (2005)'s measure of work-related burnout. I measure an employee's burnout by averaging the response to seven items from the Copenhagen Burnout Inventory (CBI) (Kristensen et al., 2005). As burnout is measured at Time 1 and Time 2, I test the measurement invariance of the variable. The specified model fits well ( $\chi^2(22)=53.106$  ( $p<.05$ ), CFI=0.903, TLI=0.814, SRMR=0.055, RMSEA=.082); there is no statistically significant difference from the constrained model ( $\chi^2(24) = 33.609$ ,  $p =0.09$ ). I also find that the burnout

variable is invariant across all four tests. The factor structure fits well across both time periods (configural test), the intercepts are equivalent in both time periods (metric test), the error variance is equivalent in both time periods when factor loadings and intercepts are fixed (scalar test), and the means do not differ significantly from zero across both time periods (strict test). After establishing measurement invariance, I examine the reliability of the burnout measure. I average seven burnout items, which are measured on a five-point Likert scale; the scale has a Cronbach's alpha of .91. The seven items correlate well with each other at Time 1 and Time 2. In the sample for analysis 1, there is considerable variation in burnout (sample mean=2.48; standard deviation=0.88); there is also considerable variation in burnout for the sample I use in analysis 2 (sample mean=2.42; standard deviation=0.87). On average, 74.88% employees report experiencing occasional burnout for the sample in analysis 1 (78.45% for the sample used in analysis 2). On the other side of the scale, 5.69% (analysis 1) and 5.65% (analysis 2) of employees report experiencing burnout often or to a high degree (Kristensen et al., 2005). In general, about 1 in 4 employees in the panel dataset for analysis 1 (1 in 5 employees in the sample used in analysis 2) report feeling burnout at least some of the time, if not frequently, as part of their work experience.

### **Perceived Stress**

Perceived stress refers to the amount of stress an employee believes they have experienced over the past three months. I measure an employee's perceived stress using four items from the Perceived Stress Scale (Cohen & Williamson, 1988). As perceived

stress is measured at Time 1 and Time 2, I test the measurement invariance of the variable. The specified model fits well ( $\chi^2(2)=10.44(p <.05)$ , CFI=0.967, TLI=0.800, SRMR=0.030, RMSEA=.124); there is no statistically significant difference from the constrained model ( $\chi^2(13) = 4.95, p =0.97$ ). I also find that the perceived stress variable is invariant across all four tests. The factor structure fits well across both time periods (configural test), the intercepts are equivalent in both time periods (metric test), the error variance is equivalent in both time periods when factor loadings and intercepts are fixed (scalar test), and the means do not differ significantly from zero across both time periods (strict test). After establishing measurement invariance, I examine the reliability of the instrumental leadership measure. I average the four items, which are measured on a five-point Likert scale; the scale has a Cronbach's alpha of .73. The four items correlate well with each other at Time 1 and Time 2. In the sample for analysis 1, there is variation in stress (sample mean=2.40; standard deviation=0.72). On average, 86.73% employees report almost never or never experiencing occasional stress over the last three months while 13.27% report experiencing stress sometimes, fairly often, or always. In general, about 1 in 8 employees in the sample report feeling stress at least most of the time, if not frequently, as part of their work experience.

### **Affective Organizational Commitment**

Affective organizational commitment refers to the employee's perception of their position within the organization and their commitment to the organization. I measure affective organizational commitment using items from Vandenberghe & Bentein (2009).

As affective organizational commitment is measured at Time 1 and Time 2, I test the measurement invariance of the variable. The specified model fits well ( $\chi^2(16)=26.56$  ( $p <.05$ ), CFI=0.922, TLI=0.942, SRMR=0.079, RMSEA=.056); there is no statistically significant difference from the constrained model ( $\chi^2(12) = 13.606$ ,  $p =0.33$ ). I also find that the affective organizational commitment variable is invariant across all four tests. The factor structure fits well across both time periods (configural test), the intercepts are equivalent in both time periods (metric test), the error variance is equivalent in both time periods when factor loadings and intercepts are fixed (scalar test), and the means do not differ significantly from zero across both time periods (strict test). After establishing measurement invariance, I examine the reliability of the affective organizational commitment measure. I average four items, which are measured on a seven-point Likert scale; the scale has a Cronbach's alpha of .86. The four items correlate well with each other at Time 1 and Time 2.

### **Self-efficacy**

Self-efficacy is a personal, horizontal coping resource and reflects a person's belief they can manage stressors and job demands in the workplace. I measure self-efficacy using items from a scale developed by Chen, Gully, and Eden (2001). As self-efficacy is measured at Time 1 and Time 2, I test the measurement invariance of the variable. The specified model fits well ( $\chi^2(40)=79.74$  ( $p >.05$ ), CFI=0.828, TLI=0.76, SRMR=0.10, RMSEA=0.07); there is not a statistically significant difference from the constrained model ( $\chi^2(12) = 10.01$ ,  $p =0.66$ ). I also find that the self-efficacy variable is

invariant across all four tests. The factor structure fits well across both time periods (configural test), the intercepts are equivalent in both time periods (metric test), the error variance is equivalent in both time periods when factor loadings and intercepts are fixed (scalar test), and the means do not differ significantly from zero across both time periods (strict test). After establishing measurement invariance, I examine the reliability of the self-efficacy measure. I average the eight items, which are measured on a seven-point Likert scale; the scale has a Cronbach's alpha of .92. The eight items correlate well with each other at Time 1 and Time 2.

### **Social Belonging**

Social belonging is an environmental, horizontal coping resource. When an employee experiences social belonging, they hold the belief they are part of a workplace social network and can turn to that network when dealing with daily problems. I measure social belonging using two items adapted by Linos, Ruffini, & Wilcoxon (2021). I average the two items, which are measured on a seven-point Likert scale. As social belonging is measured at Time 1 and Time 2, I test the measurement invariance of the variable. The specified model fits well ( $\chi^2(4)=6.193(p >.05)$ , CFI=0.915, TLI=0.958, SRMR=0.061, RMSEA=0.051); there is not a statistically significant difference from the constrained model ( $\chi^2(6) = 6.193, p =0.40$ ). I also find that the social belonging variable is invariant across two of the four tests. The factor structure fits well across both time periods (configural test), the intercepts are equivalent in both time periods (metric test). The scalar and strict tests are not run due to the low number of items in the scale. After establishing measurement invariance, I examine the reliability of the social belonging

measure. As the scale has two items, I report the Spearman-Brown coefficient as suggested by Eising, te Grotenhuis, & Pelzer (2012). The two items have a Spearman-Brown coefficient of .82, indicating a very strong correlation and internal scale reliability.

### **Coping Mechanism: Self-distraction**

Self-distraction is a coping mechanism and refers to the measures an employee takes to distract themselves from the pile-up of stressors. I measure self-distraction using items from the Brief COPE questionnaire developed by Carver (1997). I average two items from the Brief COPE scale, which are measured on a four-point Likert scale. As self-distraction is measured only at Time 2, I do not need to establish measurement invariance. I examine the reliability of the self-distraction measure. As the scale has two items, I report the Spearman-Brown coefficient as suggested by Eising, te Grotenhuis, & Pelzer (2012). The two items have a Spearman-Brown coefficient of .44, indicating a moderate correlation and internal scale reliability. However, this scale is widely used to measure coping mechanisms and has a good inter-item reliability. I feel confident using this scale to measure an employee's use of self-distraction as a coping mechanism.

### **Coping Mechanism: Planning**

Planning is a coping mechanism that refers to an employee's attempt to create a plan to deal with the pile-up of stressors. I measure planning using items from the Brief COPE questionnaire developed by Carver (1997). I average two items from the Brief

COPE scale, which are measured on a four-point Likert scale. As planning is measured only at Time 2, I do not need to establish measurement invariance. I examine the reliability of the planning measure. As the scale has two items, I report the Spearman-Brown coefficient as suggested by Eising, te Grotenhuis, & Pelzer (2012). The two items have a Spearman-Brown coefficient of .35, indicating a weak correlation and internal scale reliability. However, this scale is widely used to measure coping mechanisms and has a good inter-item reliability. I feel confident using this scale to measure an employee's use of problem solving as a coping mechanism.

## **Methodology**

I use two empirical strategies in chapter 5. For both analyses, the unit of the analysis is the employee. In analysis 1, I leverage a first difference estimation OLS regression to examine the relationship between various coping resources and negative markers of employee well-being. In analysis 2, I use a structural equation modeling approach to assess the mediating role of two coping mechanisms (self-distraction and planning) in the relationship between instrumental leadership and burnout. In this section, I discuss each methodological approach.

### **First Difference Estimation OLS Regression**

In analysis 1, I use first-difference estimation modeling to assess how different coping resources, including instrumental leadership, are related to reduced employee burnout and stress. Panel data is used to overcome types of omitted variable bias for variables that are time-invariant (Cunningham, 2021). Panel data tends to provide more



reliable, albeit conservative, estimates of the relationship between independent and dependent variables (Cunningham, 2021). A first difference estimation for a panel data set with two periods is identical to a fixed effects model and allows for time-invariant variables to correlate with the independent variable(s) (Woolridge, 2013). This approach controls for unobserved and observed time-invariant differences between employees including demographic factors (e.g., race, gender, and disability status).

I use a fixed effects OLS regression to leverage the panel structure of the data and analyze the relationship between instrumental leadership, affective organizational commitment, self-efficacy, social belonging, and burnout and stress. Results from the Hausman test indicate that the fixed effects approach is the appropriate analysis as the unique errors correlate with the regressors ( $p < 0.001$ ). As part of my fixed effects OLS analysis, I cluster the standard errors by leaders to account for the unequal variance with errors for each leader's employees that may occur and to distinguish between team-level effects and individual effects (Garson, 2019). I control for an employee's turnover intention (measured at Time 1 and Time 2) as a proxy for an employee's overall view of their workplace and capture some of the unobserved endogeneity. Turnover intention has a low correlation with actual turnover of employees one year after the survey was first administered (see Appendix A) and a low correlation to burnout and stress. This low correlation suggests that turnover intention can be a proxy for an employee's overall impression of the larger workplace, as the survey primes the employee to consider their leader's behaviors and their smaller working environment. I also employ a stepwise regression pattern to address this concern.

## **Structural Equation Modeling**

In analysis 2, I use structural equation modeling to explore the relationship between coping resources, coping mechanisms, and employee well-being. Traditionally, SEM has been used to combine different techniques like path modeling, factor analysis, and regression modeling to estimate the measurement model and causal effects of the specified relationships (Hox & Bechger, 1998). SEM allows for the measurement and structural models of a hypothesized relationship to be estimated at the same time, which captures the predictive relationships (structural model) and the makeup of latent variables (measurement model) (McCoy, 2016). The measurement model also captures the true score of a latent variable and the error in measurement (McCoy, 2016). I use the responses from participants in Time 2 for greater statistical power, which makes my analysis cross-sectional in nature. As part of my analysis, I control for characteristics like an employee's age, gender, education, and tenure with the organization. I also control for the employee's department. I cluster the standard errors by leader to address unequal variation for each leader's employees.

## **Challenges**

I have chosen to use two different approaches to investigate the relationship between instrumental leadership and burnout. The fixed effects model in general is a good fit with panel data, as time-invariant variables, unobservable and observable alike, are considered. However, I rely on the unique strengths of each specific approach (SEM and OLS) to explore the relationship further. Using the OLS fixed effects model, in

analysis 1, considers the relationship between different coping resources and negative markers of employee well-being in a manner that accounts for changes over time, with straightforward assumptions being made about the relationships. Using the SEM approach, in analysis 2, allows me to test the plausibility of my proposed theoretical framework by estimating the measurement model and specifying different models. While I can leverage the unique panel structure of the dataset in two different analytical techniques, there are some limitations to this research. This section talks about the limitations of this research for the data collection process, the measurement of the variables of interest, and the methodological analysis.

The data collection process provides an opportunity to examine coping resources at both the individual level and at the team level. However, I focus primarily on the individual level of analysis clustered at the leader level. This focus allows me to determine if any strong associations exist between instrumental leadership, burnout, and the other variables of interest. I use my findings to set up future research to examine these relationships at the team level. The survey was purposefully limited to employees whose direct supervisor had more than three reports and the employees were not required to participate in the data collection. While this practice allows for ethical data collection, it does raise concerns of self-selection bias.<sup>9</sup>

Individuals who are highly burnout may not opt into participating in a survey. Additionally, individuals who experienced a large increase in burnout from Time 1 to Time 2 may have left the survey, with the new variants of COVID-19 (Delta and

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<sup>9</sup> Selection bias may also exist for leaders who opted into the training.

Omicron) being identified in this period. In this sense, the high rate of responses from the identified potential sample pool at Time 1 and the high rate of response to the follow-up survey are important. This sample size increases the likelihood of more precise estimates in my findings. Additionally, the use of City A's human resources department as the primary source of communication may have provided more weight to the survey and encouraged greater participation.

Social desirability bias may be present as employees answered questions about their workplace, supervisor, and employee well-being. This distortion may lead to measurement error (Baltagi, 2005). However, employees were assured anonymity in their responses. The human resources department was also the face of the survey, which may limit the tendency toward social desirability bias, due to the traditional role of the HR department in preserving the relationship between employees and the organization. I can also connect employee responses to their leaders' responses. This connection allows me to examine for differences in perceived leadership behavior (instrumental leadership) and control for factors that could influence an employee's coping resources from the leader level.

All variables are collected from the same instrument and rely upon an employee's self-report, which can lead to measurement error (Podsakoff et al., 2003; George & Pandey, 2017). However, as George & Pandey (2017) point out, the study of an employee's psychological mindset can only be accomplished through self-reports. Other reporting methods may not truly represent the employee's mindset and are not necessarily superior to a self-reported survey (Conway & Lance, 2010; George & Pandey, 2017;

Podsakoff, MacKenzie, & Podsakoff, 2012). While some of the variables are not normally distributed (instrumental leadership and social belonging), I address this non-normality by bootstrapping the standard errors and checking for extreme outliers (Winsorize) during analysis (Pek, Wong, & Wong, 2018). All measures used in the analysis have strong internal reliability and validity and are found to be time-invariant in terms of measurement.

## **5: ANALYSIS**

In this chapter, I empirically examine the effects of different types of coping resources on two markers of employee well-being, stress and burnout, using a first difference estimation OLS regression. I also empirically examine the mediating role of coping mechanisms between instrumental leadership and burnout using structural equation modeling. I first present the data, methods, and results for Analysis 1. I then present my data, methods, and results for Analysis 2.

### **Analysis 1: Data and Methods**

I use panel survey data collected in July/August 2021 and November/December 2021 from employees in a large southwest U.S. city. I balance my panel on the burnout variable (n=211). The descriptive statistics for the variable of interests are displayed in tables in Appendix A. On average, employees in the panel are 45 years old, female, with 8 years of experience in their current position. Over 60 percent of employees had a four-year college degree or higher education. I use a first-difference estimation method to estimate the relationship between different coping resources and negative markers of employee well-being. The level of analysis is the individual-level. To compare the effects of each coping resource on employee burnout and stress, I standardize each variable. I report the descriptive statistics for the standardized variables in Table 6. A correlation table for the variables of interest can be found in Appendix A. For all first difference estimation variables, I measure the change in a variable from Time 1 to Time 2.

**Table 6**  
*Descriptive Statistics for First Difference Estimation Variables of Interest*

Variable	N	Mean	SD	Min	Max
Change in Burnout	211	0	1	-4.94	2.72
Change in Stress	210	0	1	-3.24	2.55
Change in Instrumental Leadership	205	0	1	-6.64	2.30
Change in Affective Organizational Commitment	207	0	1	-4.69	2.91
Change in Self-efficacy	205	0	1	-4.75	2.64
Change in Social Belonging	208	0	1	-2.77	3.91
Change in Turnover Intention	183	0	1	-3.49	3.69

*Notes: Panel is balanced on burnout variable. Number of leader clusters (n=60 - 62) varies depending on variables used. Variables are standardized before the first difference was estimated.*

### **Analysis 1: Measurement**

#### **Dependent variables <sup>10</sup>**

I measure negative markers of employee well-being using changes in burnout and stress. I measure an employee's change in burnout from Time 1 to Time 2 using seven items from the Copenhagen Burnout Inventory (CBI) developed by Kristensen et al. (2005), focusing on the sub-measure of work-related burnout. The items are measured on a five-point Likert scale, which has a Cronbach's alpha of .91. I measure stress using four items from the Perceived Stress Scale developed by Cohen & Williamson (1988). The

<sup>10</sup> All survey items can be found in Appendix B.

Perceived Stress Scale is widely used in psychological research to capture the reflection of an individual's perceived feelings of stress from the past three months. The items are measured on a five-point Likert scale, which has a Cronbach's alpha of .73.

### **Independent variables**

I measure four different coping resources: instrumental leadership, affective organizational commitment, self-efficacy, and social belonging. I measure instrumental leadership from Time 1 to Time 2 using eight items developed by Antonakis & House (2014). The items are measured on a five-point Likert scale, which has a Cronbach's alpha of .95. I measure the average change in affective organizational commitment from Time 1 to Time 2 using four items developed by Vandenberghe & Bentein (2009). The items are measured on a seven-point Likert scale, which has a Cronbach's alpha of .86. I measure the average change in self-efficacy from Time 1 to Time 2 using eight items developed by Chen, Gully, and Eden (2001). The items are measured on a seven-point Likert scale, which has a Cronbach's alpha of .92. I measure the average change in social belonging from Time 1 to Time 2 using two items from a scale adapted by Linos, Ruffini, & Wilcoxon (2021). The items are measured on a seven-point Likert scale, which has a Spearman-Brown coefficient of .82. I test the measurement invariance of the instrumental leadership, affective organizational commitment, self-efficacy, and social belonging measures and find that the psychometric properties of these measures are equivalent for both Time 1 and Time 2. I also control for an employee's commitment to their work more generally by capturing the change in their turnover intention ("In the next 12 months,



how likely are you to leave your current organization?") from Time 1 to Time 2.

Turnover intention is measured on a scale of 0-100.

As I rely on a panel data structure with only two time points, the results of the first-estimation method are identical to any results from a fixed effects analysis (Woolridge, 2013). I am able to control for omitted variable bias as the first difference estimation accounts for both observable and unobservable employee time invariant characteristics (Woolridge, 2013). I test the time invariance of all measures. Identifying the measurement invariance ensures the same meaning of the construct is captured at both points in time (Putnick & Bornstein, 2016). All latent variables have measurement invariance, which allows me to analyze the data using a panel dataset. I run an OLS regression with robust standard errors clustered by leader to allow for correlation in errors between employees under the same leader, thereby calculating more precise standard errors.

### **Analysis 1: Results and Discussion**

Tables 7 and 8 report the results for changes in burnout and stress as the dependent variables respectively. I review the results for each hypothesis and then explore the results further to identify the relationship between instrumental leadership and negative markers of employee well-being. When compared to each other, no one coping resource is a better predictor of the relationship with employee burnout or employee stress than the other coping resources in the models run in Tables 7 and 8 (see Appendix A for more details).

## **Instrumental Leadership**

Hypothesis 1a states that instrumental leadership is associated with a decrease in employee burnout. Model 1 (Table 7) examines this bivariate relationship directly. A change in instrumental leadership is statistically significant and associated with a decrease in burnout ( $\beta=-0.24 (.08)$ ,  $p<.10$ ). Model 5 (Table 7) and Model 6 (Table 7) consider the relationship between instrumental leadership and burnout while controlling for other coping resources. Model 6 also controls the employee's turnover intention. A change in instrumental leadership is statistically significant and has a negative relationship with a change in burnout for both models (Model 5:  $\beta=-0.20 (.07)$ ,  $p<.10$ ; Model 6:  $\beta=-0.19 (.08)$ ,  $p<.10$ ). Interpreting the results from Model 6, we see that, controlling for fixed effects, an increase of one standard deviation in instrumental leadership is correlated with a change of  $-.19$  standard deviations in employee burnout. Thus, Hypothesis 1a is supported.

Hypothesis 1b states that instrumental leadership is associated with a decrease in employee stress. Model 1 (Table 8) examines this bivariate relationship directly. A change in instrumental leadership is statistically significant and associated with a decrease in stress ( $\beta=-0.15 (.06)$ ,  $p<.10$ ). Model 5 (Table 8) and Model 6 (Table 8) consider the relationship between instrumental leadership and stress while controlling for other coping resources. Model 6 also controls the employee's turnover intention. A change in instrumental leadership is statistically significant and has a negative relationship with a change in stress for both models (Model 5:  $\beta=-0.13 (.07)$ ,  $p<.10$ ; Model 6:  $\beta=-0.14 (.07)$ ,  $p<.10$ ). Interpreting the results from Model 6, we see that,

controlling for fixed effects, an increase of one standard deviation in instrumental leadership is correlated with a change of  $-.14$  standard deviations in employee stress. Thus, Hypothesis 1b is supported.

### **Affective Organizational Commitment**

Hypothesis 2a states that affective organizational commitment is associated with a decrease in employee burnout. Model 2 (Table 7) examines this bivariate relationship directly. A change in affective organizational commitment is statistically significant and associated with a decrease in burnout ( $\beta=-0.24 (.08)$ ,  $p<.10$ ). Model 5 (Table 7) and Model 6 (Table 7) consider the relationship between affective organizational commitment and burnout while controlling for other coping resources. Model 6 also controls the employee's turnover intention. A change in affective organizational commitment is statistically significant and has a negative relationship with a change in burnout for both models (Model 5:  $\beta=-0.16 (.08)$ ,  $p<.10$ ; Model 6:  $\beta=-0.20 (.10)$ ,  $p<.10$ ). Interpreting the results from Model 6, we see that, controlling for fixed effects, an increase of one standard deviation in affective organizational commitment is correlated with a change of  $-.20$  standard deviations in employee burnout. Thus, Hypothesis 2a is supported.

Hypothesis 2b states that affective organizational commitment is associated with a decrease in employee stress. Model 2 (Table 8) examines this bivariate relationship directly. A change in affective organizational commitment is not statistically significantly related to a decrease in employee stress ( $\beta=-0.11 (.07)$ ,  $p>.10$ ). Model 5 (Table 8) and Model 6 (Table 8) consider the relationship between affective organizational commitment

and stress while controlling for other coping resources. Model 6 also controls the employee's turnover intention. A change in affective organizational commitment is not statistically significantly related to a change in stress for both models (Model 5:  $\beta=-0.04$  (.07),  $p>.10$ ; Model 6:  $\beta=-0.02$  (.09),  $p>.10$ ). Thus, Hypothesis 2b is not supported.

### **Self-efficacy**

Hypothesis 3a states that self-efficacy is associated with a decrease in employee burnout. Model 3 (Table 7) examines this bivariate relationship directly. A change in self-efficacy is not statistically significantly related with a decrease in burnout ( $\beta=-0.06$  (.00),  $p>.10$ ). Model 5 (Table 7) and Model 6 (Table 7) consider the relationship between self-efficacy and burnout while controlling for other coping resources. Model 6 also controls the employee's turnover intention. A change in self-efficacy is not statistically significantly related with a change in burnout for both models (Model 5:  $\beta=0.00$  (.09),  $p>.10$ ; Model 6:  $\beta=0.03$  (.09),  $p>.10$ ). Thus, Hypothesis 3a is not supported. Hypothesis 3b states that self-efficacy is associated with a decrease in employee stress. Model 3 (Table 8) examines this bivariate relationship directly. A change in self-efficacy is statistically significant and associated with a reduction in stress ( $\beta=-0.14$  (.08),  $p<.10$ ). Model 5 (Table 8) and Model 6 (Table 8) consider the relationship between self-efficacy and stress while controlling for other coping resources. Model 6 also controls the employee's turnover intention. A change in self-efficacy is not statistically significantly related to a change in stress for both models (Model 5:  $\beta=0.10$  (.06),  $p>.10$ ; Model 6:  $\beta=-0.11$  (.08),  $p>.10$ ). Thus, Hypothesis 3b is partially supported.

## **Social Belonging**

Hypothesis 4a states that social belonging is associated with a decrease in employee burnout. Model 4 (Table 7) examines this bivariate relationship directly. A change in social belonging is statistically significant and associated with a reduction in burnout ( $\beta=-0.14$  (.06),  $p<.10$ ). Model 5 (Table 7) and Model 6 (Table 7) consider the relationship between social belonging and burnout while controlling for other coping resources. Model 6 also controls the employee's turnover intention. A change in social belonging is not statistically significantly related with a change in burnout for both models (Model 5:  $\beta=-0.09$  (.06),  $p>.10$ ; Model 6:  $\beta=-0.02$  (.07),  $p>.10$ ). Thus, Hypothesis 4a is partially supported. Hypothesis 4b states that social belonging is associated with a decrease in employee stress. Model 4 (Table 8) examines this bivariate relationship directly. A change in social belonging is not statistically significantly correlated with a change in stress ( $\beta=-0.05$  (.07),  $p>.10$ ). Model 5 (Table 8) and Model 6 (Table 8) consider the relationship between social belonging and stress while controlling for other coping resources. Model 6 also controls the employee's turnover intention. A change in social belonging is not statistically significantly related to a change in stress for both models (Model 5:  $\beta=-0.04$  (.07),  $p>.10$ ; Model 6:  $\beta=-0.04$  (.08),  $p>.10$ ). Thus, Hypothesis 4b is not supported.

**Table 7**  
*Regression Results (Burnout as DV)*

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>
Instrumental Leadership	-.24** (.08)				-.20** (.07)	-.19* (.08)
Affective Organizational Commitment		-.24* (.08)			-.16† (.08)	-.20* (.10)
Self-Efficacy			-.06 (.09)		.00 (.09)	.03 (.09)
Social Belonging				-.14* (.06)	-.09 (.06)	-.02 (.07)
Turnover						.00 (.00)
Constant	-.01 (.07)	-.00 (.07)	-.01 (.07)	-.01 (.07)	-.04 (.07)	-.02 (.08)
N	205	207	205	208	196	173
R <sup>2</sup>	0.06	0.06	0.00	0.02	0.10	0.13
F Tests	F (1,61)= 9.54, <i>p</i> <.05	F (1,61)= 8.08, <i>p</i> <.05	F (1,61)= 0.44, <i>p</i> >.05	F (1,61)= 5.51, <i>p</i> <.05	F (4,61)= 6.44, <i>p</i> <.05	F (5,59)= 4.47, <i>p</i> <.05

*Notes: Clustered standard errors by leader (n=62). Robust standard errors reported in parentheses.*

*† p <.10, \* p<.05, \*\*p<.01, \*\*\*p<.001. N varies by model.*

**Table 8**  
*Regression Results (Stress as DV)*

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>
Instrumental Leadership	-.15* (.06)				-.13* (.07)	-.14* (.07)
Affective Organizational Commitment		-.11 (.07)			-.04 (.07)	-.02 (.09)
Self-Efficacy			-.14 <sup>†</sup> (.08)		.10 (.06)	-.11 (.08)
Social Belonging				-.05 (.07)	-.04 (.07)	-.04 (.08)
Turnover						.07 (.10)
Constant	-.01 (.06)	.01 (.06)	-.00 (.07)	-.01 (.06)	-.01 (.06)	.01 (.07)
N	204	207	204	207	196	173
R <sup>2</sup>	0.02	0.01	0.02	0.00	0.04	0.04
F Tests	F (1,61)= 6.08, <i>p</i> <.05	F (1,61)= 2.48, <i>p</i> <.05	F (1,61)= 3.51, <i>p</i> <.05	F (1,61)= 0.39, <i>p</i> >.05	F (4,61)= 2.00, <i>p</i> >.05	F (4,59)= 2.05, <i>p</i> >.05

*Notes: Clustered standard errors by leader (n=62). Robust standard errors reported in parentheses.*

*<sup>†</sup> p <.10, \* p<.05, \*\*p<.01, \*\*\*p<.001. N varies by model.*

### Exploring the results

Due to the smaller number of observations, I cannot examine the interaction between instrumental leadership and other coping resources. Instead, I examine the linear relationship between changes in instrumental leadership, other coping resources, and employee burnout and stress. Table 9 displays the models that re-examine the bivariate relationship between the different coping resources and employee burnout and employee

stress while controlling for a change in instrumental leadership. When compared to each other, no one coping resource is a better predictor of the relationship with employee burnout or employee stress than the other coping resources in the models run in Tables 7-9 (see full results in Appendix A).<sup>11</sup> I specifically examine the effect of a change in instrumental leadership on changes in burnout and stress, looking at the cumulative effect of instrumental leadership in partnership with other coping resources.

Changes in instrumental leadership have a strong, statistically significant, negative relationship with changes in both employee burnout and stress. In this paired analysis, I find that, when controlling for a change in instrumental leadership, a change in affective organizational commitment has a statistically significant, negative relationship with changes in burnout ( $\beta=-0.36 (.09)$ ,  $p>.10$ ) as does a change in self-efficacy ( $\beta=-0.28 (.12)$ ,  $p>.10$ ), and social belonging ( $\beta=-0.39 (.10)$ ,  $p>.10$ ) (see Appendix A for full results). That cumulative effect translates into models where all variables are present (affective organizational commitment ( $\beta=-0.36 (.09)$ ,  $p>.10$ ) and social belonging ( $\beta=-0.29 (.10)$ ,  $p>.10$ ) and where an employee's turnover intention is controlled for (affective organizational commitment ( $\beta=-0.40 (.10)$ ,  $p>.10$ ), self-efficacy ( $\beta=-0.22 (.13)$ ,  $p>.10$ ), and social belonging ( $\beta=-0.21 (.10)$ ,  $p>.10$ ).

I also examine the cumulative effect of a change in instrumental leadership combined with another coping resources as it relates to employee stress (see Table 9).

This relationship between instrumental leadership and stress, along with another coping

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<sup>11</sup> The only model that provides a significant result when comparing the relationship between the change in predictor variables and the change in employee burnout or stress is the instrumental leadership-self-efficacy and burnout model ( $-0.22 (.09)$ ,  $p<.05$ ). This result, combined with the non-statistically significant result for self-efficacy, points to the importance of instrumental leadership as a coping resource.



resource, is negative and statistically significant for affective organizational commitment ( $\beta=-0.19 (.08), p>.10$ ), self-efficacy ( $\beta=-0.26 (.10), p>.10$ ), and social belonging ( $\beta=-0.13 (.05), p>.10$ ). That cumulative effect translates into models where all variables are present (affective organizational commitment ( $\beta=-0.17 (.07), p>.10$ ), self-efficacy ( $\beta=-0.23 (.10), p>.10$ ), and social belonging ( $\beta=-0.17 (.10), p>.10$ )) and where an employee's turnover intention is controlled for (self-efficacy ( $\beta=-0.26 (.10), p>.10$ )).

When specifically examining the effect of a change in affective organizational commitment, the cumulative impact on a change in burnout exists in conjunction with a change in self-efficacy ( $\beta=-0.23 (.13), p>.10$ ) and a change in social belonging ( $\beta=-0.23 (.11), p>.10$ ) in models controlling for turnover intention and where all variables are present. A cumulative effect on a change in burnout for a change in affective organizational commitment and social belonging ( $\beta=-0.25 (.10), p>.10$ ) also exists in a model turnover intention is not controlled for, but where a change in all coping resources is recorded. No cumulative effects are identified when specifically examining a change in social belonging or self-efficacy where instrumental leadership and affective organizational commitment are not present.

**Table 9**  
*Regression Results (Controlling for Instrumental Leadership)*

	<i>Burnout as DV</i>			<i>Stress as DV</i>		
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
Instrumental Leadership	-0.18* (.08)	-0.25*** (.07)	-0.25** (.08)	-.13* (.06)	-.14* (.06)	-.16* (.06)
Affective Organizational Commitment	-0.18* (.09)			-.06 (.08)		
Self-Efficacy		-0.03 (.08)			-.12† (.07)	
Social Belonging			-0.14* (.06)			-.05 (.07)
Constant	-0.01 (.07)	-0.02 (0.07)	-0.02 (0.07)	-0.01 (0.06)	-0.01 (0.06)	-0.02 (0.06)
N	203	200	203	203	199	202
R <sup>2</sup>	0.09	0.06	0.08	0.03	0.03	0.03
F Tests	F (2,61)= 6.78, p<.05	F (2,61)= 6.30, p<.05	F (2,61)= 8.11, p<.05	F (2,61)= 3.14, p<.05	F (2,61)= 3.75, p<.05	F (2,61)= 6.08, p<.05

*Notes: Clustered standard errors by leader (n=62). Robust standard errors reported in parentheses.*

*† p <.10, \* p<.05, \*\*p<.01, \*\*\*p<.001. N varies by model.*

As public employees face overwhelming job demands and a lack of resources, they are at risk of experiencing negative markers of employee well-being, including experiencing burnout and stress (Tummers, 2017; Shim, Park, & Jeong, 2019). Organizations and managers need to find ways to bolster an employee’s ability to cope. One way is to cultivate specific coping resources to help employees deal with workplace stressors. There are different types of coping resources available to public employees

depending on the coping resource source (personal or environmental) and dimension (horizontal or vertical). I find that the source of the coping resource does not seem to matter as much as the dimension of the coping resource. Horizontal coping resources that have been found to be important in an individual's personal coping process were not identified as having a significant relationship with employee burnout or stress. Self-efficacy and social belonging are some of the most common examples of coping resources in psychology (Figley, 1983; Holahan, Moos, & Schaefer, 1996; Schwzer & Tauber, 2002; Braun-Lewensohn, 2014). These horizontal coping resources each represent a different source of coping resources (personal: self-efficacy; environmental: social belonging) and have been validated as important elements in employee well-being (Sloan, 2014; Jacobsen & Bøgh Andersen, 2017; Linos, Ruffini, and Wilcoxon, 2021). Yet, horizontal coping resources do not have a statistically significant relationship with employee burnout or stress. It could be that social belonging, which plays a competing role as both a coping resource and coping mechanism, is less effective singularly as a resource, but may be more useful as a coping mechanism. Such a combination would explain why vertical coping resources like instrumental leadership or affective organizational commitment, which emanate from the top-down, have an increased negative relationship with negative markers of employee well-being, like burnout or stress, when combined with social belonging. Employees are able to tap into the asset of instrumental leadership and combine it with the coping mechanism, or action, of social belonging—turning to their social network for support in solving the problem while relying on their leader to help navigate the pile-up of stressors.

Vertical coping resources have statistically significant negative relationships with employee burnout and stress. A change in instrumental leadership (a vertical, environmental resource) has a statistically significant, negative relationship to changes in burnout and stress. A similar, though less potent effect is found between a change in affective organizational commitment (a vertical, personal resource) and a change in burnout. Both instrumental leadership and affective organizational commitment can be influenced by individuals holding authority within an organization, suggesting the importance of institutions and leaders in the coping process (Mäkiniemi, Oksanen, & Mäkikangas, 2021; Bertelli et al., 2022). Vertical resources are more formal and tend to be initiated from managerial level, leaving employees little control over the resource. Vertical coping resources present opportunities for leaders and organizations to increase their employees' coping resources and, hopefully, the effectiveness of the coping process itself. With the relationship between instrumental leadership and burnout in mind, I now examine the mediating role of coping mechanisms in the coping process.

## **Analysis 2: Data and Methods**

I use survey data collected from employees in a large southwest U.S. city in November/December 2021. As the coping mechanism items are only captured at Time 2, my data is cross-sectional. The dataset includes observations included in the panel data structure from analysis 1 and all other responses at Time 2. The descriptive statistics for the variable of interests are displayed in Table 10. On average, employees are 45 years old, female, with 8 years of experience in their current position. Over 60 percent of

employees had a four-year college degree or higher education and over half of the employees were part of the community services department. I use the *sem* package in STATA version 17 to estimate the measurement and path models. Within my modeling, I use the maximum likelihood missing values (*mlmv*) estimation method as missing observations have been determined to be random (Stata, 2021).

I specify the latent factors described in Chapter 4 within the model along three direct paths (coping mechanism to burnout, instrumental leadership to burnout, and instrumental leadership to coping mechanism) and one indirect path (instrumental leadership to coping mechanism to burnout). I control for employee characteristics (i.e., sex, age, education level, and tenure with the organization) as an individual's identity can influence the choice of and effectiveness of coping mechanisms (Chang & Taylor, 2014). I also control for each employee's department. I use the jackknife estimation to cluster robust standard errors by the employee's leader (n=66). Clustering by leaders allows me to account for intervariance that might occur.

**Table 10.**  
*Descriptive Statistics for Variables of Interest*

Variable	N	Mean	SD	Min	Max
Burnout <sup>1</sup>	283	2.42	0.87	1	5
Instrumental Leadership <sup>2</sup>	280	5.68	1.29	1	7
Coping Mechanism: Self-distraction <sup>3</sup>	240	2.25	0.83	1	4
Coping Mechanism: Planning <sup>3</sup>	240	2.38	0.82	1	4
Age	249	45.62	11.4 3	19	71
Sex <sup>4</sup>	249	0.42	0.49	0	1
Tenure in Position	263	8.24	7.22	1	31
Department <sup>5</sup>	283	0.37	0.48	0	1

*Notes: <sup>1</sup> Range 0 – 5.*

*<sup>2</sup> Range 1 – 7.*

*<sup>3</sup> Range 1 – 4.*

*<sup>4</sup> Dummy variable (0=male and 1=female).*

*<sup>5</sup> Dummy variable (0=tasks could primarily be done in-person and 1=tasks could primarily be done remotely).*

## Analysis 2: Measurement

### Dependent variable

I measure an employee's average burnout at Time 2 using work burnout items from the Copenhagen Burnout Inventory (CBI) developed by Kristensen et al. (2005). I average the seven items, which are measured on a five-point Likert scale. The scale has a Cronbach's alpha of .92.

### **Independent variables**

I measure an employee's perception of their leader's instrumental leadership at Time 2 using items developed by Antonakis & House (2014). I average the eight items, which are measured on a five-point Likert scale. The scale has a Cronbach's alpha of .96. I measure an employee's use of self-distraction in Time 2 using two items from the Brief COPE inventory developed by Carver (1997). I average the items, which are measured on a four-point Likert scale. The scale has a Spearman-Brown coefficient of .44. I measure an employee's use of planning in Time 2 using two items from the Brief COPE inventory developed by Carver (1997). I average the items, which are measured on a four-point Likert scale. The scale has a Spearman-Brown coefficient of .35.

### **Control variables**

I control for several employee characteristics including employee age, sex, tenure in their position, and education. I also created a dummy variable to indicate the location where the department's prototypical work can be conducted (i.e., work typically requires an employee to be on-location, like stocking library shelves, or work could be moved to a remote location, like creating financial reports). I provide a more detailed distribution of employees by department in Appendix A.

## **Analysis 2: Results**

I report the results of the SEM analysis for Models 1 and 2. Tables 11 and 12 report the standardized coefficients and Figures 7 and 8 highlight the path analysis results. I review the results for each model and then explore the results further.

### **Model 1: Self-distraction as a Mediating Variable**

Full estimation results, including control variables, are displayed in Table 11. The conceptual model, hypotheses, and findings are depicted in Figure 7. The test of model fit indicates that this model represents the data well ( $\chi^2(182) = 376.043$ ,  $p < 0.001$ , CFI = 0.949, TFI=0.938, and RMSEA = 0.061). Hypothesis 5 states that self-distraction will be positively related to burnout. A positive and statistically significant relationship between self-distraction and burnout is observed (standardized path coefficient: 0.91 (.21),  $p < .10$ ). Thus, Hypothesis 5 is supported, which suggests that the coping mechanism of self-distraction has a positive, statistically significant relationship with employee burnout. When employees increase their self-distraction coping mechanism by one standard deviation, burnout increases by .91 standard deviations.

Hypothesis 6 states that instrumental leadership will be negatively related to self-distraction. A negative and statistically significant relationship between instrumental leadership and self-distraction is observed (standardized path coefficient: -0.07 (.04),  $p < .10$ ). Thus, Hypothesis 6 is supported, which suggests instrumental leadership has a negative, statistically significant relationship with employees choosing to employ self-distraction techniques as a coping mechanism. When employees experience an increase in



instrumental leadership by one standard deviation, their use of self-distraction as a coping mechanism decreases by .07 standard deviations.

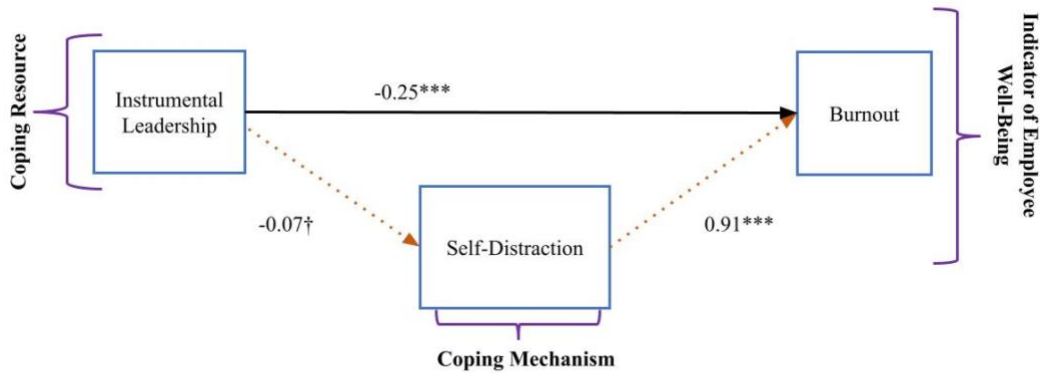
Hypothesis 7 states that the relationship between instrumental leadership and burnout will be mediated by the coping mechanism of self-distraction. I observe a negative and statistically significant relationship between instrumental leadership and burnout, as mediated by self-distraction (standardized path coefficient: -0.06 (.04),  $p < .10$ ). Thus, Hypothesis 7 is supported, which is that the relationship between instrumental leadership, as a coping resource, and employee burnout is mediated by the employee's choice of coping mechanism: self-distraction. The three assumptions of a mediation model are met: (1) there is a statistically significant relationship (negative) between instrumental leadership and self-distraction, (2) there is a statistically significant relationship (positive) between self-distraction and burnout, and (3) accounting for the mediating effect of the self-distraction coping mechanism, the statistically significant, direct (negative) relationship between instrumental leadership and burnout decreases.

**Table 11***Results of Structural Equation Model for Model 1 (Self-distraction)*

<i>Variable Path</i>	<i>Standardized Coefficient</i>
<i>Direct Paths</i>	
Instrumental Leadership → Self-distraction	-0.07 <sup>†</sup> (.04)
Instrumental Leadership → Burnout	-0.25*** (.06)
Self-distraction → Burnout	0.91*** (.21)
<i>Indirect Paths</i>	
Instrumental Leadership → Self-distraction → Burnout	-0.06 <sup>†</sup> (.04)
<i>Controls</i>	
Age → Instrumental Leadership	-0.00 (.01)
Age → Self-distraction	-0.01 (.01)
Age → Burnout	-0.02* (.01)
Sex → Instrumental Leadership	-0.07 (.16)
Sex → Self-distraction	-0.04 (.09)
Sex → Burnout	-0.14 (.10)
Education → Instrumental Leadership	-0.04 (.05)
Education → Self-distraction	-0.00 (.02)
Education → Burnout	0.00 (.04)
Tenure in Position → Instrumental Leadership	-0.01 (.01)
Tenure in Position → Self-distraction	-0.01* (0.00)
Tenure in Position → Burnout	0.02* (0.01)
Department → Instrumental Leadership	-0.33 <sup>†</sup> (.18)
Department → Self-distraction	-0.01 (.10)
Department → Burnout	-0.02 (.13)

*Notes: Standardized path coefficients from structural equation model with cluster-robust t-statistics by organizational department. Standard errors in parentheses. N = 283; 66 clusters. <sup>†</sup> p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.*

**Figure 7**  
*Conceptual Model and Path Analysis Results (Self-distraction as Mediator)*



Notes: Standardized path coefficients from structural equation model with cluster-robust standard errors by leader. N = 283. Controls (not shown) for employee characteristics include: sex, age, education, tenure with organization., and type of department.

Indirect effect for paths |Instrumental Leadership; Avoidance; Burnout| = -.06 (.04),  $p = .084$ . Model fit indices:  $\chi^2(182) = 376.043$ ,  $p < 0.001$ , CFI = 0.949, TFI=0.938, RMSEA =0.061. †  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

## Model 2: Planning as a Mediating Variable

Full estimation results, including control variables, are displayed in Table 12. The conceptual model, hypotheses, and findings are depicted in Figure 8. The test of model fit indicates that this model represents the data well ( $\chi^2(182) = 386.156$ ,  $p < 0.001$ , CFI = 0.951, TFI=0.941, and RMSEA = 0.060). Hypothesis 8 states that planning will be negatively related to burnout. A positive and statistically significant relationship between planning and burnout is observed (standardized path coefficient: 1.17 (.23),  $p < .10$ ). Thus, Hypothesis 8 is not supported, as a positive correlation exists between employees employing planning behaviors and burnout. Hypothesis 9 states that instrumental leadership will be positively related to planning. A negative and statistically significant

relationship between instrumental leadership and planning is observed (standardized path coefficient: -0.14 (.06),  $p < .10$ ). Thus, Hypothesis 9 is not supported, as a positive correlation exists between employees choosing to employ planning behaviors as a coping mechanism.

Hypothesis 10 states that the relationship between instrumental leadership and burnout will be mediated by the coping mechanism of planning. I observe a negative and statistically significant relationship between instrumental leadership and burnout, as mediated by planning (standardized path coefficient: -0.16 (.08),  $p < .10$ ). Thus, Hypothesis 10 is supported, which is that the relationship between instrumental leadership, as a coping resource, and employee burnout is mediated by the employee's choice of coping mechanism: planning. The three assumptions of a mediation model are met: (1) there is a statistically significant relationship (negative) between instrumental leadership and planning, (2) there is a statistically significant relationship (positive) between planning and burnout, and (3) accounting for the mediating effect of the planning coping mechanism, the statistically significant, direct (negative) relationship between instrumental leadership and burnout increases.

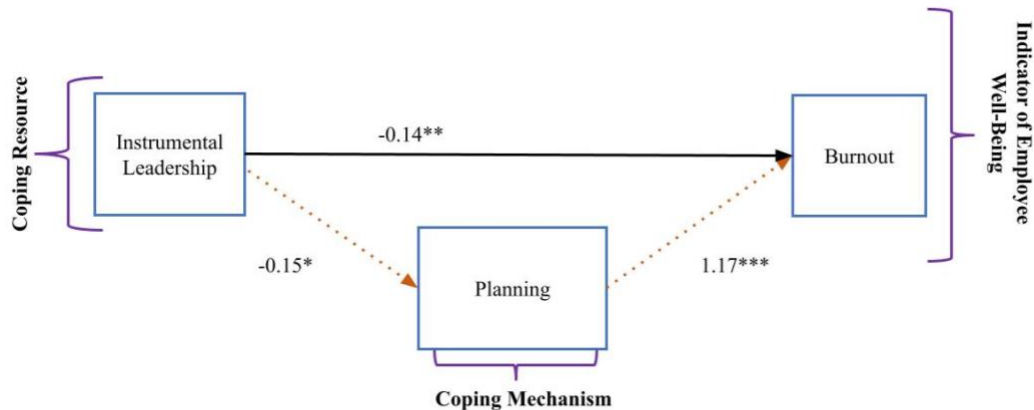
**Table 12**  
*Results of Structural Equation Model 2: Planning*

<i>Variable Path</i>	<i>Standardized Coefficient</i>
<i>Direct Paths</i>	
Instrumental Leadership → Planning	-0.14** (.06)
Instrumental Leadership → Burnout	-0.15* (.07)
Planning → Burnout	1.17*** (.23)
<i>Indirect Paths</i>	
Instrumental Leadership → Planning → Burnout	-0.16* (0.08)
<i>Controls</i>	
Age → Instrumental Leadership	-0.01 (.01)
Age → Planning	-0.02** (.01)
Age → Burnout	-0.00 (.01)
Sex → Instrumental Leadership	-0.07 (.16)
Sex → Planning	-0.31* (.14)
Sex → Burnout	0.20† (.12)
Education → Instrumental Leadership	-0.04 (.06)
Education → Planning	0.01 (0.05)
Education → Burnout	-0.01 (.04)
Tenure in Position → Instrumental Leadership	-0.01 (.01)
Tenure in Position → Planning	-0.01 (.01)
Tenure in Position → Burnout	0.02 (0.01)
Department → Instrumental Leadership	-0.33† (.19)
Department → Planning	-0.18 (.12)
Department → Burnout	0.18 (.14)

*Notes: Standardized path coefficients from structural equation model with cluster-robust t-statistics by organizational department. Standard errors in parentheses. N = 283; 66 clusters. † p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.*

**Figure 8**

*Conceptual Model and Path Analysis Results (Planning as Mediator)*



Notes: Standardized path coefficients from structural equation model with cluster-robust standard errors by leader. N = 283. Controls (not shown) for employee characteristics include: sex, age, education, tenure with organization., and type of department.

Indirect effect for paths [Instrumental Leadership; Planning; Burnout] = -.16 (.08),  $p = .045$ . Model fit indices:  $\chi^2(182) = 386.156$ ,  $p < 0.001$ , CFI = 0.951, TFI = 0.941, RMSEA = 0.060. †  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Coping resources and mechanisms are the tools and actions that make up the coping process. An employee's coping resources can influence their use of coping mechanisms, which, in turn, leads to changes in the employee's well-being. As employees work to cope with their pile-up of stressors, they may rely on a leader's instrumental leadership to help them engage in the coping process effectively. The findings in this chapter point to the relationship between instrumental leadership and two particular coping mechanisms: self-distraction and planning.

Instrumental leadership has a negative relationship with self-distraction, meaning that as the employee's perception of their supervisor's instrumental leadership behaviors increase, their self-distraction behaviors decrease. This finding is important because self-distraction, as an avoidance focused coping mechanism, is linked to increased levels of

burnout and stress (Ng, Shao, & Liu, 2016). Instrumental leadership may help decrease an employee's use of this coping mechanism because instrumental leadership identifies barriers to success and works to help employees overcome barriers. This path-goal facilitation, coupled with the leader's monitoring of the environment and employee outcomes, could help an employee regain a sense of control, learn needed skills to address the pile-up of stressor, or feel safer re-engaging with an emotionally fraught situation (Bittner et al., 2011; Montero-Marin et al., 2014; Friganoviü et al., 2019). When considering the mediating role of self-distraction between instrumental leadership and burnout, the anticipated decrease in burnout is statistically significant, albeit with a small effect size. However, when considering the large, positive relationship between self-distraction and burnout, the impact of instrumental leadership as a coping resource becomes more apparent. This finding suggests that coping resources, in particular instrumental leadership, may find success in offsetting the impact of an employee's use of poor coping mechanisms, which can lead to a decrease in burnout.

On the other hand, planning, as a coping mechanism, is an active problem-focused, cognitive response. While these types of coping mechanisms are typically linked to better employee well-being (Lemonaki et al., 2021), planning has a positive relationship with burnout. This relationship might be explained by the fact that planning is primarily a cognitive response and must be coupled with a behavioral response coping mechanism to succeed in improving employee well-being (Lazarus & Folkman, 1984; Aspinwall, 2010). The planning coping mechanism also requires a feasible plan to be generated, which is not a trait measured in this study. Additionally, the measure fails to

determine if the employee is planning for the near-term or striving to create a “30,000 foot” strategy that may create more strain on their well-being in the short-term (Aspinwall, 2010). The findings suggest that employees who experience instrumental leadership are less likely to engage in the planning mechanism. This finding suggests that instrumental leadership, as a coping resource, has limitations that ought to be studied further. Perhaps, the very nature of instrumental leadership, with its day-to-day focus combined with visionary aspirations, may dissuade an employee to engage in their own proactive planning coping mechanism, instead relying on the leader’s instrumental leadership to create a plan that assuages their feelings of burnout and addresses their pile-up of stressors.



## **6: DISCUSSION AND CONCLUSION**

Public employees face daunting job demands with limited job resources. While public servants may accept a level of imbalance as part of their job (Giaque, Anderfuhren-Biget, & Varone, 2013), upsetting this tolerated job demands and job resources imbalance can negatively affect employee well-being and their ability to serve constituents. An employee's tolerated imbalance depends on the employee's perception of the situation and the stressors causing the job demands. When a crisis occurs, either externally or internally, the tolerated imbalance shifts and the stressors from job demands begin to pile-up (Patterson & McCubbin, 1983). Employees engage in a coping process to respond to the pile-up of stressors from a crisis and reduce future vulnerability (Patterson & McCubbin, 1983).

Employees engage in the coping process, first by appraising the situation, then by engaging coping resources and coping mechanisms. Coping resources are the assets employees use in the coping process to address the pile-up of stressors (Lazarus & Folkman, 1984; Patterson & McCubbin, 1983). The more coping resources available to an employee to draw upon during the act of coping, the less vulnerable the employee is to work stressors in general (Greenglass, 2002). At the end of the coping process, employees should experience changes to their well-being, changes to their coping resources, and an altered perception of what job demands-job resources imbalance is tolerable.

My research focuses on how public servants in their jobs utilize coping resources as part of this process. Studying the impact of coping resources provides insight into how

leaders can better support and empower public employees and support public employees' coping process. This focus on coping resources is especially true when examining one particular coping resource: instrumental leadership. Instrumental leadership behaviors are focused engaging with the day-to-day of their employees' work life by providing strategic feedback and visionary leadership to overcome work-related obstacles and improve employee well-being. Understanding the relationship between instrumental leadership and employee well-being, and some of the caveats around that relationship, can help employees and organizations thrive. In this chapter, I review the findings from Chapter 5, discuss the limitations of this dissertation, and suggest paths forward in the research.

## **Findings**

Because instrumental leadership interplays with coping mechanisms and other coping resources, I examine both the direct relationship between coping resources and employee well-being and how coping mechanisms mediate the relationship between instrumental leadership and burnout. I focus specifically on instrumental leadership because leadership is an asset to employees, especially when they are experiencing uncertainty and stressors in the workplace (Tavares, Sobral, & Wright, 2021); trusted leaders can even increase employee well-being (Kelloway et al., 2012).

Leader behavior can significantly impact an employee's well-being and performance (Inceoglu et al., 2018). Leaders create a healthy work environment (Kara, Uysal, Sirgy, & Lee, 2013) and provide resources, support, and vision to employees navigating uncertainty (Sung Min & Rainey, 2008). Organizations, through their leaders,

influence an employee's belief they can resolve problems (Harland et al., 2005). The practices of instrumental leadership, like path-goal facilitation and constructive feedback, amplify an employee's confidence in their own capabilities and highlights their own strengths. My analysis highlights the impact the change in instrumental leadership has on both employee burnout and stress, regardless of the other coping resources at play.

Many studies focus on employee well-being as a secondary outcome, rather than a primary outcome of interest, or rely on the relationship between leadership and employee job satisfaction, rather than considering other markers of employee well-being (Inceoglu et al., 2018). Additionally, these studies focus on traditionally emphasized leadership behaviors, like transformational and transactional leadership (Inceoglu et al., 2018; Skakon et al., 2010). My findings indicate a negative, statistically significant relationship between the coping resources of instrumental leadership (environmental, vertical) and affective organizational commitment (personal, vertical) and burnout; a negative, statistically significant relationship also exists between instrumental leadership and stress. The moderate correlation between a change in instrumental leadership and employee burnout and stress point to the importance of conducting further research both into the relationship between leadership and employee well-being while focusing on instrumental leadership behavior. Further research might focus on identifying what specific elements of instrumental leadership (i.e., environmental monitoring, strategy formulation, path-goal facilitation, outcome monitoring) have the strongest relationship with decreasing negative markers of employee well-being. Future research should also examine whether environmental coping resources, like instrumental leadership, may support personal

coping resources, like affective organizational commitment, by strengthening an employee's ability to draw upon different coping resources (Holahan, Moos, & Schaefer, 1996).

My findings do not indicate a statistically significant relationship for horizontal coping resources, like social belonging and self-efficacy, which traditionally are considered important coping resources in psychology (Greenglass, 2002). These findings could be due, in part, to the type of stressors employees were coping with. Many stressors arising from a job demands-job resource imbalance are normative, meaning the employees and organizations have time to prepare, can anticipate, or have previous experience with the situation (McCubbin & Figley, 1983). On the other hand, stressors in a catastrophe are often accompanied with a level of dangerousness and a loss of control that leads to helplessness. One of the challenges of catastrophic stressors is that very few, if any, organizations have experience successfully navigating the stressor (McCubbin & Figley, 1983). This research examines the relationship between coping resources and employee well-being through the lens of the COVID-19 pandemic, which is a catastrophic stressor. This scenario may explain the stronger relationship between vertical coping resources, like instrumental leadership and affective organizational commitment, and lower levels of employee burnout, as employees sought out structural support during a time of uncertainty (Lin et al., 2021; Daniels et al., 2022). Future research should examine these relationships again while considering the role of more normative or chronic crises, like budgetary strains or new politically appointed supervisors, in the efficacy of different types of coping resources.

In Chapter 5, I examined the meditating role of two different coping mechanisms: self-distraction and planning. While most individuals employ more than one coping mechanism to address their pile-up of stressors, individuals tend to use particular coping mechanisms more frequently (Lazarus & Folkman, 1984). Instrumental leadership is associated with a reduction in the coping mechanism of self-distraction, but negatively correlated with the coping mechanism of planning. This relationship suggests that the type of coping resource an employee chooses matters as it can impact the effectiveness of a coping mechanism. Instrumental leadership has the ability to offset the impact of self-distraction as a coping mechanism, but reduces planning behavior, even though planning, as a mediating variable, leads to a negative relationship instrumental leadership and burnout. This finding also suggests that there are limitations of instrumental leadership as a coping resource and that, as a coping resource, instrumental leadership may be best suited for employees who tend to participate in avoidance-focused coping mechanisms, rather than emotion or problem-focused coping mechanisms.

### **Limitations**

The data used in this dissertation was collected from city employees in a large southwest US city from July/August 2021 to November/December 2021. Surveys were sent by City A's human resources department to leaders and employees leading to moderate sample sizes (77.08% (454) completed the survey in Time 1; 52.80% (311) completed the survey in Time 2). The primary variables of interest are measurement invariant over time and have strong indicators of internal validity and reliability, increasing the veracity of the empirical analyses.

There are some limitations. The coping process and the act of coping itself have a convoluted relationship with time. Each stage relies on actions taken in previous stages (i.e., the act of coping relies on a cognitive appraisal occurring), but there are elements of endogeneity and temporal precedence. Individuals may move between each stage as exogenous factors shift the context of the coping process (Troop, 1998). Moreover, real-life measurement of these constructs is difficult as these steps are not concretely separate, but blend, repeat, and intertwine based on context and an individual's motivation (Troop 1998). Measuring the entire coping process requires extensive analysis of the situation, behavioral responses, resources available, and stressors in the workplace (Davis et al. 2020; Mowday & Sutton, 1993). A person's choice to cope is also something that is interrelated, but dependent on the environment as the coping process may shift to meet the need of the situation (Losiak, 2011; Lazarus & Folkman, 1984). Things like emotional intelligence, political skill, social exclusion, and marginalization are all factors that can extend or impede the ability of an employee to cope (Meisler, Vigoda-Gadot, & Drory, 2017; Cigler, 2007). As most coping research requires self-reflection and disclosure by the individual, it can be hard to determine which element precedes the other and if a causal relationship does exist. While causality may be hard to prove theoretically, it does not preclude the importance of studying the relationship between these elements of the coping process and how coping resources and coping mechanisms work together to reduce burnout and otherwise impact employee well-being. Therefore, certain assumptions must be made in an empirical evaluation of the coping process including the

fact that a crisis has occurred (in this case, the COVID-19 pandemic) to trigger a pile-up of stressors and that employees have decided to cope with said pile-up.

When considering the connection between coping resources and employee well-being, a linear flow is apparent: the application of coping resources leads to reduced stressors and improved employee well-being. However, when considering the relationship between other elements in this process, like the addition of one or more coping resources and coping mechanisms, the presence of ambiguous temporal precedence is evident (Lazarus & Folkman, 1984). Just like the chicken and the egg, it is hard to determine what comes first: instrumental leadership that creates an environment where a person acts to engage their social network or a social network within an environment creates the space for an employee to respond to instrumental leadership behaviors. There is no real way to determine the temporal order with the variables of coping resources or the implementation of these resources in conjunction with multiple coping mechanisms. The ambiguousness around temporal precedence is one of the reasons my research findings are correlational and not causally based.

Theoretically, endogeneity is a concern as well. There are always variables that are omitted when researching coping and stress-related questions, like the initial appraisal of a stressor by an employee (Lazarus & Folkman, 1984). Additionally, there is an element of simultaneity involved in the coping process itself. When an individual successfully combines a coping resource and coping mechanism to address a pile-up of stressors, their well-being increases. However, any successful attempt in coping trains the brain to favor certain approaches and individuals gain a learned response (Lazarus &

Folkman, 1984). As the double ABCX model demonstrates, these learned responses shape employee perspectives around job demands and job resources and can be altered during the coping process. The framework of the adapted double ABCX model recognizes these limitations and carries forward with those assumptions when empirically measuring the coping process.

There are also several questions around common method bias, social desirability bias, and the representativeness of the data. All variables are collected from the same instrument and rely upon an employee's self-report, which can lead to measurement error (Podsakoff et al., 2003; George & Pandey, 2017). However, as George & Pandey (2017) point out, the study of an employee's psychological mindset can only be accomplished through self-reports. This limitation is something that should be acknowledged, and accepted, as employees are the primary source available in this type of research. Other reporting methods may not truly represent the employee's mindset and are not necessarily superior to a self-reported survey (Conway & Lance, 2010; George & Pandey, 2017; Podsakoff, MacKenzie, & Podsakoff, 2012). Social desirability bias may be present as employees answered questions about their workplace and supervisor. While employees were assured anonymity in their responses, it is a reasonable assumption that responses may change to make the employee look better or even make their leader look bad. This distortion may lead to measurement error (Baltagi, 2005). Future research can utilize a mixture of self-reported data and observation data to assess the relationship between coping resources, employee well-being and the overall effectiveness of an employee's coping process.



For example, we can use turnover data from City A collected in August 2022 to assess the relationship between instrumental leadership, burnout, and employee turnover. Organizations that have a high level of burnout in employees see higher levels of turnover (Lee & Ashforth, 1990; Campbell et al., 2013; Kelly, Gee, & Butler, 2021). If burnout can be reduced using coping resources, then turnover should fall as employee well-being is maintained or improved. While this data analysis is limited and exploratory, due to the nature of the turnover data,<sup>12</sup> a negative relationship exists between instrumental leadership, as a coping resource (see Table 7). When examining the relationship between burnout at Time 2 and actual turnover one year later for respondents in the panel data set, no statistically significant relationship is found, although the  $t$  statistics is larger than zero and trends in the right direction ( $\beta=0.04 (.03)$ ,  $p>.10$ ;  $t=1.60$ ). One reason for this finding could be the overall turnover in local government organizations tends to be lower compared to other industries (US Bureau of Labor Statistics, 2022) or the reduced number of observations in the panel data sample (about 10% of the sample turned over in the year following the survey). With a bigger sample size, the preliminary findings suggest that we may find the value in instrumental leadership, as a coping resource, reducing burnout is not only beneficial in the short-term for employee well-being and coping, but could help organizations in the long run retain employees.

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<sup>12</sup> Limitations on the turnover data include the (a) lack of distinction between someone leaving the organization due to turnover (i.e., retirement, death, disagreement with COVID-19 protocols, downsizing, etc.) and (b) low number of employees who turned over.

**Table 13**  
*Regression Results for Turnover Data One Year Out*

	Model 1
Burnout at Time 2	0.04 (.03)
Employee Gender <sup>1</sup>	-0.09 (.05)
Employee Age <sup>2</sup>	0.00 (.00)
Employee Education: Some college	-0.05 (.12)
Employee Education: 2-year degree	-0.03 (.14)
Employee Education: 4-year degree	-0.14 (.12)
Employee Education: Professional degree	-0.21 † (.11)
Employee Education: Doctorate degree	0.11 (.27)
Employee Tenure <sup>3</sup>	-0.00 (.00)
Constant	0.04 (.16)
N	192
R <sup>2</sup>	0.08
F Tests	F (9,60)= 1.42, <i>p</i> > .05

*Notes: Clustered standard errors by leader (n=61). Robust standard errors reported in parentheses. Referent group is individuals who left the organization. † *p* < .10, \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001.*

<sup>1</sup> *Dummy variable (0=male and 1=female).*

<sup>2</sup> *Range: 19 – 73.*

<sup>3</sup> *Range: 1 – 36.*

Looking at the empirical models specifically, several limitations and challenges are present. In analysis 1, I use a first difference estimation OLS regression with panel

data that mirrors a fixed effect approach. As fixed effects analyses tend towards attenuation bias, the correlation between instrumental leadership, other coping resources, and burnout may be understated and trend towards zero. These more conservative estimates demonstrate the directionality of the relationship, but may not reflect true magnitude. However, this approach allows me to account for any individual-level characteristics (through the fixed effects). I also account for team and leader characteristics that may impact the relationship between coping resources and employee well-being through the clustering of standard errors at the leader level. I assume that the variables I am interested in do vary within a short time frame, which is probable due to the pileup of stressors from the changes in the COVID-19 pandemic during this time frame (i.e., the Delta and Omicron waves). The restricted number of time periods ( $n=2$ ) creates a conservative bias in the coefficients (Hill et al., 2020). I use panel data for more robust insights into the relationship between variables. However, I lose cases where data points for the variables of interest are not included, which reduces the power of the analysis leading to the potential for Type II errors (Hill et al., 2020).

In my second analysis, I use SEM to estimate the relationship between instrumental leadership and burnout and highlight the role of coping mechanisms as mediating variables. Using SEM provides an opportunity to understand the relationship between the observed latent variables and capture the measurement model. I use the maximum likelihood missing value estimation method to limit the number of observations dropped due to non-response (Stata, 2021). I assume that all missing values are missing at random and that my data is normally distributed. Again, I account for team

and leader characteristics clustering standard errors at the leader level. The small sample size does not allow me to control for all potential variables, leading to the risk of omitted variable bias (Tomarken & Walker, 2005). The sample size also restricts my ability to compare variables from Time 1 and Time 2, leading to a cross-sectional examination of the relationships. This limitation allows for the possibility that an alternative model may fit the data equally well (Tomarken & Walker, 2005). Future research should re-examine this model with a larger dataset to ensure any omitted variables do not alter the specification and ultimate findings of the model.

Data around employee's race, disability status, family circumstances, income, etc., all of which could impact an employee's sense of well-being and coping resources, are not collected leading to questions about representativeness. While the panel structure of the data allows for control around these time-invariant characteristics, research shows that race, disability, and income, along with other characteristics, can impact how individuals perceive and access certain coping resources as well as the impact these resources have on an employee's well-being (Miller Smedema, Catalano, & Ebener, 2010; Van Deurzen, Van Ingen, & Van Oorschot, 2015; Louie et al., 2021). The dataset shows strong variation in participant age, gender, and education and City A has a higher socioeconomic power than other nearby locations. This information about the context where employees are working indicates that while environmental crises, like the COVID-19 pandemic, can impact employees and their workplace, the impact may not be as pronounced as in other contexts where the socioeconomic situation is less stable (i.e., for populations who fall into solidly middle or lower income distribution) (Agberotimi et al.,

2020; Little et al., 2021; Wanberg et al., 2020). While the results may not be generalizable based on individual characteristics, I am able to provide broad insights into the relationship between coping resources and employee well-being; these insights can be used in the future to generate more generalizable research designs.

### **Next Steps**

My findings point to the important role coping resources play in the coping process. Public administration research that omits this important variable by focusing only a single coping mechanism may be missing the entire picture. Future research should consider how other types of coping resources impact common employee coping mechanisms leading to changes in employee well-being, especially when the crisis is not a catastrophic event, like the COVID-19 pandemic. Future research also should consider limitations of coping resources and what pairings, like instrumental leadership with avoidance-focused coping mechanisms, are a good combination for managers to understand. Most coping mechanism-related research relies on a means strategy, like this analysis, which does not account for the frequency of use for a particular coping mechanism (Heffer & Willoughby, 2017). These challenges have led researchers to focus mostly on singular interactions or coping mechanisms, rather than delve into the coping process engaging multiple mechanisms and resources (also known as coping strategies). While the measures used here are widely verified over multiple cultures, languages, and settings (see Yusoff, Low, & Yip, 2009; Garcia et al. 2009; and Nawel & Elisabeth, 2015 for examples), the challenge remains that the scale only measures general behavioral and cognitive responses.

Additional qualitative research may shed some light on the minutiae of an employee's coping process, particularly their use of coping resources and coping mechanisms. Questions about how employees perceive their coping resources and the relationship between coping resources and coping mechanisms is one that should be further explored using different methods. Future research can also improve upon the challenges of common source bias and self-reporting. One suggestion is to employ a mixed methods approach to assess how employees perceive their leaders in different scenarios or by using additional indirect questions around more sensitive questions (Fisher, 1993). Another option is to use separate markers of employee well-being, like turnover (as demonstrated in Chapter 6), to identify the relationship between coping resources and employee well-being.

Due to the fixed effects nature of the model and the time frame the data is collected within, I choose not to investigate the relationship between coping resources, employee well-being, and time-invariant variables from the organization, like a variation in job demands by department or employee characteristics. Researchers should consider qualitative and quantitative methods to further explore how personal and workplace identities influence coping resources and the coping process in the workplace. Future research should attempt to examine how coping resources in preceding time periods influence the use of ensuing coping mechanisms and how coping mechanisms mediate the relationship between coping resources and employee well-being over time. Studies with a longer time frame and more time periods of observation, like a mixed methods

diary study to examine daily or weekly coping practices, can address challenges related to time and context.

### **Conclusion**

Identifying the relationship of coping resources with markers of employee well-being creates new information for public employees and leaders to use when faced with overwhelming job demands. This information can help employees design their work to meet overwhelming job demands in a more functional and healthy way. If we better understand the role coping resources play in employee well-being, we may be able to gain deeper insight into the role these resources play in employee discretion and accountability. Clients and citizens also benefit when public employees cope better, as employees are less likely to discriminate against community members, are more efficient in their work, and provide better services (Cohen, 2018; Levitats, Vigoda-Gadot, & Vashdi, 2019; Dramani Kipo-Sunyehzi, Attuquayefio, & Sunyehzi, 2019). Finally, understanding coping resources can benefit public leaders and organizations that desire healthy workplaces with low rates of turnover and burnout. Psychologically healthy workplaces save organizations money and other intangible assets by reducing turnover, retaining institutional knowledge, and increasing employee engagement (Sun & Bunchapattanasakda, 2019; Decuyper & Schaufeli, 2020; Warrick, 2017). Organizations thrive when employees have good workplace well-being, even if a disparity continues to exist between available job resources and job demands (Kim & Beehr, 2020). Identifying if leaders can serve as a coping resource and influence the efficacy of employee coping is a practical tool for future managers to draw upon.

Ultimately, public employees' coping resources represent an understudied area of research in public administration. I provide broad insights into the relationship between coping resources and employee well-being and specific insights around the relationship between the coping resource of instrumental leadership and employee burnout. These insights can be used in the future to generate more generalizable research designs. As we expand our knowledge around the efficacy of specific coping resources, we gain a better understanding of the role that the sources and dimensions of resources play in the coping process for public employees. Understanding the relationship between coping resources and employee well-being provides insights that public leaders can leverage to better support employee coping processes. As specific coping resources, like instrumental leadership, are connected with lower levels of burnout and stress, public leaders who cultivate and promote these resources within their own employees may find more success in maintaining and increasing workplace well-being. Helping public employees engage in a more effective coping process leads to increased employee well-being, a recognition of the role of coping resources, and an increased ability to manage a job demands-job resources imbalance.



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## APPENDIX A

### TABLES

**Appendix Table 1**  
*Wording and Factor Loadings for Items*

Variable	$\lambda$ (Time 1)	$\lambda$ (Time 2)
<b>Burnout (Kristensen et al., 2005)</b>		
1. Do you feel worn out at the end of the working day?	0.76	0.78
2. Are you exhausted in the morning at the thought of another day at work?	0.84	0.81
3. Do you feel that every working hour is tiring for you?	0.78	0.83
4. Do you have enough energy for family and friends during leisure time? (reversed)	0.58	0.66
5. Is your work emotionally exhausting?	0.71	0.77
6. Does your work frustrate you?	0.75	0.75
7. Do you feel burnt out because of your work?	0.85	0.87
<b>Coping Mechanism: Self-distraction <sup>1</sup></b>		
1. I've been turning to work or other activities to take my mind off things.	N/A	0.55
2. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	N/A	0.55
<b>Coping Mechanism: Problem Solving <sup>1</sup></b>		
1. I've been trying to come up with a strategy about what to do.	N/A	0.49
2. I've been thinking hard about what steps to take.	N/A	0.49
<b>Instrumental Leadership (Antonakis and House, 2014)</b>		
1. Has an understanding of what we as an organization need to achieve	0.77	0.83
2. Understand what needs to change in our organization	0.85	0.85
3. Ensures that his / her vision is understandable to employees	0.83	0.84
4. Translates his vision into specific objectives	0.85	0.86
5. Removes barriers that prevent me from achieving my goals	0.87	0.85
6. Ensures that I have good opportunities to achieve my goals	0.83	0.87
7. Helps me learn from my mistakes	0.90	0.91
8. Gives me constructive feedback based on my mistakes	0.90	0.88

**Appendix Table 1**  
*Wording and Factor Loadings for Items*

Variable	$\lambda$ (Time 1)	$\lambda$ (Time 2)
<b>Affective Organizational Commitment (Vandenberghe &amp; Bentein, 2009)</b>		
1. I feel a strong sense of belonging to my organization	0.77	0.84
2. I really feel as if my organization's problems are my own	0.60	0.58
3. My organization has a great deal of personal meaning for me	0.89	0.84
4. I feel emotionally attached to my organization	0.89	0.84
<b>Perceived Stress Scale (Cohen &amp; Williamson, 1988)</b>		
1. Unable to control the important things in your life	0.70	0.70
2. That things were going your way? (reversed)	0.51	0.56
3. You could not cope with all the things that you had to do?	0.62	0.67
4. You were on top of things? (reversed)	0.60	0.67
<b>Self-efficacy (Chen, Gully, and Eden, 2001)</b>		
1. I will be able to achieve most of the goals I have set for myself	0.77	0.83
2. When facing difficult tasks, I am certain that I will accomplish them	0.82	0.85
3. In general, I think that I can obtain outcomes that are important to me	0.73	0.80
4. I believe I can succeed at most any endeavor to which I set my mind	0.82	0.81
5. I will be able to successfully overcome many challenges	0.75	0.83
6. I am confident that I can perform effectively on many different tasks	0.68	0.82
7. Compared to other people, I can do most tasks very well	0.59	0.69
8. Even when things are tough, I can perform quite well	0.76	0.74
<b>Social Belonging (Linos, Ruffini, Wilcoxon, 2021)</b>		
1. There is someone at work I can talk to about my day-to-day problems if I need to.	0.30	0.46
2. When something bad happens at work, I feel that maybe I don't belong.	0.30	0.46

*Note: <sup>1</sup> Factor analysis conducted using all of the observations in Time 2. For all other latent variables, only observations part of the panel dataset are used.*

## Appendix Table 2

*Test for Group Mean Differences Across Sample Population and Final Respondents*

Variables of Interest	T-Test for Group Mean Differences	
	Time 1 (Sample Population versus All Respondents)	Time 2 (Sample Population versus All Respondents)
Burnout <sup>1</sup>	F (1, 274)= 0.26, NS	(dropped)
Instrumental Leadership <sup>2</sup>	F (1, 267)= 9.85, <i>p</i> <.05	F (1, 278)= 0.56, NS
Affective Organizational Commitment <sup>2</sup>	F (1, 268)= 0.48, NS	F (1, 281)= 1.20, NS
Self-efficacy <sup>2</sup>	F (1, 268)=0.43, NS	F (1, 278)= 0.01, NS
Social Belonging <sup>2</sup>	F (1, 271)= 2.06, NS	F (1, 287)= 0.47, NS
Employee Perceived Stress Over Past 3 Months <sup>1</sup>	F (1, 273)= 0.00, NS	F (1, 277)= 0.17, NS
Coping Mechanism (Self- distraction) <sup>3</sup>	N/A	F (1, 237)= 2.90, NS
Coping Mechanism (Problem Solving) <sup>3</sup>	N/A	F (1, 237)= 0.35, NS
	Time 1 (Sample Population versus all Respondents)	Time 2 (Sample Population versus All Respondents)
Employee Characteristics		
Employee Gender <sup>4</sup>	F (1, 261)= 0.67, NS	F (1, 247)= 3.53, NS
Employee Age <sup>5</sup>	F (1, 261)= 0.53, NS	F (1, 247)= 0.14, NS
Employee Education Level <sup>6</sup>	F (1, 271)= 2.42, NS	F (1, 264)= 0.00, NS
Employee Tenure in Position <sup>7</sup>	F (1, 270)= 0.58, NS	F (1, 261)= 2.21, NS
Employee Department	F (1, 257)= 0.05, NS	F (1, 280)= 2.76, NS
Turnover Intention <sup>8</sup>	F (1, 254)= 10.20, <i>p</i> <.05	F (1, 258)= 0.40, NS
Observations	F (12, 203)= 1.69, NS	F (13, 184)= 1.89, <i>p</i> <.05

*Notes:*

<sup>1</sup> Range: 0 – 5.

<sup>2</sup> Range: 1 – 7.

<sup>3</sup> Range: 0 – 4.

<sup>4</sup> Dummy variable (0=male and 1=female).

<sup>5</sup> Range: 19 – 73.

<sup>6</sup> Education levels (1= Less than high school; 2= High school graduate; 3= Some college; 4= 2-year degree; 5= 4-year degree; 6= Professional degree; 7=Doctorate).

<sup>7</sup> Range: 1 - 36;

<sup>8</sup> Range: 0-100.

**Appendix Table 3***Correlation of Variables of Interest (Panel)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Instrumental Leadership	-						
(2) Burnout	-0.26	-					
(3) Stress	-0.15	0.63	-				
(4) Affective Organizational Commitment	0.36	-0.24	-0.15	-			
(5) Self-efficacy	0.18	-0.18	-0.37	0.22	-		
(6) Social belonging	0.39	-0.39	-0.30	0.34	0.27	-	
(7) Turnover	-0.18	0.26	0.18	-0.35	-0.02	-0.17	-

*Notes: Number of observations is 243.***Appendix Table 4***Correlation of Variables of Interest and Turnover Data*

	(1)	(2)
(1) Turnover Intention	-	
(2) Turnover (one year out)	0.35	-

*Notes: Actual turnover grow about .05% as turnover intention increases by one point on a 100-point scale.*

**Appendix Table 5***Correlation of Variables of Interest (Time 2, not panel)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Instrumental Leadership	-								
(2) Burnout	0.26	-							
(3) Stress	0.12	0.58	-						
(4) Affective Organizational Commitment	0.42	0.29	-0.25	-					
(5) Self-efficacy	0.15	0.07	-0.28	0.26	-				
(6) Social belonging	0.40	0.39	-0.35	0.35	0.28	-			
(7) Turnover	-0.21	0.32	0.30	-0.39	-0.02	-0.23	-		
(8) Self-distraction	0.02	0.42	0.34	0.01	0.04	-0.16	0.19	-	
(9) Problem Solving	0.07	0.50	0.37	0.02	0.06	-0.19	0.21	0.56	-

*Notes: Number of observations is 214.*

**Variable: Burnout**

**Appendix Table 6.1**  
*Measurement Invariance Results for Burnout*

	$\chi^2$	(df)	$p > \chi^2$	Result
Test 1: Configural (Item 1)	0.12	1	0.72	Invariant
Test 1: Configural (Item 2)	0.33	1	0.56	Invariant
Test 1: Configural (Item 3)	0.25	1	0.62	Invariant
Test 1: Configural (Item 4)	0.96	1	0.33	Invariant
Test 1: Configural (Item 5)	1.88	1	0.17	Invariant
Test 1: Configural (Item 6)	0.30	1	0.58	Invariant
Test 1: Configural (Item 7)	1.10	1	0.30	Invariant
Test 2: Metric	0.02	7	1.00	Invariant
Test 3: Scalar	0.06	7	1.00	Invariant
Test 4: Strict	0.00	1	0.98	Invariant

**Appendix Table 6.2***Correlation of Burnout Items (Time 1)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Do you feel worn out at the end of the working day?	-						
(2) Are you exhausted in the morning at the thought of another day at work?	0.68	-					
(3) Do you feel that every working hour is tiring for you?	0.63	0.73	-				
(4) Do you have enough energy for family and friends during leisure time? (reversed)	0.49	0.53	0.45	-			
(5) Is your work emotionally exhausting?	0.53	0.51	0.50	0.34	-		
(6) Does your work frustrate you?	0.50	0.60	0.55	0.40	0.64	-	
(7) Do you feel burnt out because of your work?	0.64	0.72	0.63	0.50	0.66	0.69	-

*Notes: Number of observations is 211. Average inter-item covariance: .65. Cronbach's alpha is .90.*



**Appendix Table 6.3***Correlation of Burnout Items (Time 2)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Do you feel worn out at the end of the working day?	-						
(2) Are you exhausted in the morning at the thought of another day at work?	0.63	-					
(3) Do you feel that every working hour is tiring for you?	0.72	0.73	-				
(4) Do you have enough energy for family and friends during leisure time? (reversed)	0.55	0.50	0.65	-			
(5) Is your work emotionally exhausting?	0.60	0.59	0.55	0.47	-		
(6) Does your work frustrate you?	0.52	0.62	0.54	0.40	0.69	-	
(7) Do you feel burnt out because of your work?	0.67	0.72	0.69	0.57	0.69	0.70	-

*Notes: Number of observations is 211. Average inter-item covariance: .72. Cronbach's alpha is .92.*

**Appendix Table 6.4**  
*Correlation of Burnout Items (All)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Do you feel worn out at the end of the working day?	-						
(2) Are you exhausted in the morning at the thought of another day at work?	0.65	-					
(3) Do you feel that every working hour is tiring for you?	0.67	0.73	-				
(4) Do you have enough energy for family and friends during leisure time? (reversed)	0.52	0.52	0.55	-			
(5) Is your work emotionally exhausting?	0.57	0.55	0.53	0.41	-		
(6) Does your work frustrate you?	0.51	0.61	0.54	0.40	0.67	-	
(7) Do you feel burnt out because of your work?	0.66	0.72	0.66	0.53	0.67	0.70	-

*Notes: Number of observations is 422. Average inter-item covariance: .68. Cronbach's alpha is .91.*

**Variable: Perceived Stress**

**Appendix Table 7.1**  
*Measurement Invariance Results for Perceived Stress*

	$\chi^2$	(df)	$p > \chi^2$	Result
Test 1: Configural (Item 1)	0.00	1	0.96	Invariant
Test 1: Configural (Item 2)	0.00	1	1.00	Invariant
Test 1: Configural (Item 3)	0.27	1	0.61	Invariant
Test 1: Configural (Item 4)	0.41	1	0.52	Invariant
Test 2: Metric	0.00	4	1.00	Invariant
Test 3: Scalar	0.01	4	1.00	Invariant
Test 4: Strict	0.00	1	0.99	Invariant

**Appendix 7.2***Correlation of Perceived Stress Items (Time 1)*

	(1)	(2)	(3)	(4)
(1) Unable to control the important things in your life	-			
(2) That things were going your way? (reversed)	0.32	-		
(3) You could not cope with all the things that you had to do?	0.60	0.15	-	
(4) You were on top of things? (reversed)	0.37	0.50	0.32	-

*Notes: Number of observations is 209. Average inter-item covariance: 0.32. Cronbach's alpha is .71.*

**Appendix 7.3***Correlation of Perceived Stress Items (Time 2)*

	(1)	(2)	(3)	(4)
(1) Unable to control the important things in your life	-			
(2) That things were going your way? (reversed)	0.36	-		
(3) You could not cope with all the things that you had to do?	0.61	0.23	-	
(4) You were on top of things? (reversed)	0.40	0.54	0.44	-

*Notes: Number of observations is 211. Average inter-item covariance: 0.39. Cronbach's alpha is .75.*

#### **Appendix 7.4**

##### *Correlation of Perceived Stress Items (All)*

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	(1)	(2)	(3)	(4)
(1) Unable to control the important things in your life	-			
(2) That things were going your way? (reversed)	0.34	-		
(3) You could not cope with all the things that you had to do?	0.61	0.19	-	
(4) You were on top of things? (reversed)	0.39	0.52	0.38	-

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*Notes: Number of observations is 420. Average inter-item covariance: 0.35. Cronbach's alpha is .73.*

**Variable: Instrumental Leadership**

**Appendix Table 8.1**  
*Measurement Invariance Results for Instrumental Leadership*

	$\chi^2$	(df)	$p > \chi^2$	Result
Test 1: Configural (Item 1)	1.94	1	0.16	Invariant
Test 1: Configural (Item 2)	2.52	1	0.11	Invariant
Test 1: Configural (Item 3)	0.12	1	0.72	Invariant
Test 1: Configural (Item 4)	0.01	1	0.94	Invariant
Test 1: Configural (Item 5)	0.09	1	0.76	Invariant
Test 1: Configural (Item 6)	1.80	1	0.18	Invariant
Test 1: Configural (Item 7)	1.69	1	0.19	Invariant
Test 1: Configural (Item 8)	5.07	1	0.02	Invariant
Test 2: Metric	0.04	8	1.00	Invariant
Test 3: Scalar	0.09	8	1.00	Invariant
Test 4: Strict	0.00	1	0.96	Invariant

**Appendix Table 8.2***Correlation of Instrumental Leadership Items (Time 1)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Has an understanding of what we as an organization need to achieve	-							
(2) Understand what needs to change in our organization	0.74	-						
(3) Ensures that his / her vision is understandable to employees	0.58	0.70	-					
(4) Translates his vision into specific objectives	0.62	0.75	0.83	-				
(5) Removes barriers that prevent me from achieving my goals	0.67	0.71	0.68	0.67	-			
(6) Ensures that I have good opportunities to achieve my goals	0.70	0.67	0.63	0.63	0.83	-		
(7) Helps me learn from my mistakes	0.63	0.75	0.74	0.76	0.77	0.69	-	
(8) Gives me constructive feedback based on my mistakes	0.66	0.70	0.73	0.73	0.80	0.73	0.89	-

*Notes: Number of observations is 207. Average inter-item covariance: 1.44. Cronbach's alpha is .95.*

**Appendix Table 8.3***Correlation of Instrumental Leadership Items (Time 2)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Has an understanding of what we as an organization need to achieve	-							
(2) Understand what needs to change in our organization	0.80	-						
(3) Ensures that his / her vision is understandable to employees	0.72	0.77	-					
(4) Translates his vision into specific objectives	0.72	0.75	0.79	-				
(5) Removes barriers that prevent me from achieving my goals	0.66	0.71	0.67	0.71	-			
(6) Ensures that I have good opportunities to achieve my goals	0.69	0.69	0.66	0.73	0.84	-		
(7) Helps me learn from my mistakes	0.71	0.73	0.75	0.76	0.76	0.80	-	
(8) Gives me constructive feedback based on my mistakes	0.70	0.69	0.71	0.73	0.72	0.77	0.89	-

*Notes: Number of observations is 209. Average inter-item covariance: 1.58. Cronbach's alpha is .96.*



**Appendix Table 8.4***Correlation of Instrumental Leadership Items (All)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Has an understanding of what we as an organization need to achieve	-							
(2) Understand what needs to change in our organization	0.77	-						
(3) Ensures that his / her vision is understandable to employees	0.65	0.73	-					
(4) Translates his vision into specific objectives	0.67	0.75	0.81	-				
(5) Removes barriers that prevent me from achieving my goals	0.67	0.71	0.68	0.69	-			
(6) Ensures that I have good opportunities to achieve my goals	0.70	0.68	0.65	0.69	0.83	-		
(7) Helps me learn from my mistakes	0.67	0.74	0.75	0.76	0.77	0.75	-	
(8) Gives me constructive feedback based on my mistakes	0.68	0.70	0.72	0.73	0.76	0.75	0.89	-

*Notes: Number of observations is 416. Average inter-item covariance: 1.51. Cronbach's alpha is .95.*

**Variable: Affective Organizational Commitment**

**Appendix Table 9.1**  
*Measurement Invariance Results for Affective Organizational Commitment*

	$\chi^2$	(df)	$p > \chi^2$	Result
Test 1: Configural (Item 1)	0.30	1	0.58	Invariant
Test 1: Configural (Item 2)	0.21	1	0.89	Invariant
Test 1: Configural (Item 3)	0.85	1	0.17	Invariant
Test 1: Configural (Item 4)	0.76	1	0.38	Invariant
Test 2: Metric	0.02	1	1.00	Invariant
Test 3: Scalar	0.02	1	1.00	Invariant
Test 4: Strict	0.01	1	0.93	Invariant

**Appendix Table 9.2***Correlation of Affective Organizational Commitment Items (Time 1)*

	(1)	(2)	(3)	(4)
(1) I feel a strong sense of belonging to my organization	-			
(2) I really feel as if my organization's problems are my own	0.36	-		
(3) My organization has a great deal of personal meaning for me	0.74	0.55	-	
(4) I feel emotionally attached to my organization.	0.70	0.60	0.81	

*Notes: Number of observations is 207. Average inter-item covariance: 1.38. Cronbach's alpha is .86.*

**Appendix Table 9.3***Correlation of Affective Organizational Commitment Items (Time 2)*

	(1)	(2)	(3)	(4)
(1) I feel a strong sense of belonging to my organization	-			
(2) I really feel as if my organization's problems are my own	0.48	-		
(3) My organization has a great deal of personal meaning for me	0.75	0.48	-	
(4) I feel emotionally attached to my organization.	0.73	0.52	0.74	

*Notes: Number of observations is 211. Average inter-item covariance: 1.24. Cronbach's alpha is .86.*

**Appendix Table 9.4***Correlation of Affective Organizational Commitment Items (All)*

	(1)	(2)	(3)	(4)
(1) I feel a strong sense of belonging to my organization	-			
(2) I really feel as if my organization's problems are my own	0.42	-		
(3) My organization has a great deal of personal meaning for me	0.74	0.51	-	
(4) I feel emotionally attached to my organization.	0.72	0.56	0.77	-

*Notes: Number of observations is 418. Average inter-item covariance: 1.31. Cronbach's alpha is .86.*

**Variable: Self-efficacy**

**Appendix Table 10.1**  
*Measurement Invariance Results for Self-efficacy*

	$\chi^2$	(df)	$p > \chi^2$	Result
Test 1: Configural (Item 1)	1.27	1	0.26	Invariant
Test 1: Configural (Item 2)	1.06	1	0.30	Invariant
Test 1: Configural (Item 3)	0.03	1	0.86	Invariant
Test 1: Configural (Item 4)	1.34	1	0.25	Invariant
Test 1: Configural (Item 5)	0.40	1	0.53	Invariant
Test 1: Configural (Item 6)	4.62	1	0.03	Invariant
Test 1: Configural (Item 7)	0.00	1	0.98	Invariant
Test 1: Configural (Item 8)	3.79	1	0.05	Invariant
Test 2: Metric	07	8	1.00	Invariant
Test 3: Scalar	0.09	11	1.00	Invariant
Test 4: Strict	0.01	1	0.90	Invariant

**Appendix Table 10.2***Correlation of Self-efficacy Items (Time 1)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) I will be able to achieve most of the goals I have set for myself	-							
(2) When facing difficult tasks, I am certain that I will accomplish them	0.67	-						
(3) In general, I think that I can obtain outcomes that are important to me	0.58	0.56	-					
(4) I believe I can succeed at most any endeavor to which I set my mind	0.66	0.76	0.59	-				
(5) I will be able to successfully overcome many challenges	0.57	0.57	0.64	0.62	-			
(6) I am confident that I can perform effectively on many different tasks	0.53	0.56	0.44	0.52	0.47	-		
(7) Compared to other people, I can do most tasks very well	0.47	0.50	0.41	0.48	0.41	0.45	-	
(8) Even when things are tough, I can perform quite well	0.54	0.59	0.58	0.57	0.61	0.61	0.47	-

*Notes: Number of observations is 206. Average inter-item covariance: 0.33 Cronbach's alpha is .90.*

**Appendix Table 10.3***Correlation of Self-efficacy Items (Time 2)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) I will be able to achieve most of the goals I have set for myself	-							
(2) When facing difficult tasks, I am certain that I will accomplish them	0.71	-						
(3) In general, I think that I can obtain outcomes that are important to me	0.68	0.67	-					
(4) I believe I can succeed at most any endeavor to which I set my mind	0.69	0.74	0.65	-				
(5) I will be able to successfully overcome many challenges	0.72	0.64	0.75	0.66	-			
(6) I am confident that I can perform effectively on many different tasks	0.67	0.71	0.66	0.68	0.61	-		
(7) Compared to other people, I can do most tasks very well	0.59	0.55	0.52	0.53	0.59	0.61	-	
(8) Even when things are tough, I can perform quite well	0.61	0.70	0.53	0.56	0.62	0.64	0.52	-

*Notes: Number of observations is 210. Average inter-item covariance: 0.48 Cronbach's alpha is .93.*

**Appendix Table 10.4***Correlation of Self-efficacy Items (all)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) I will be able to achieve most of the goals I have set for myself	-							
(2) When facing difficult tasks, I am certain that I will accomplish them	0.69	-						
(3) In general, I think that I can obtain outcomes that are important to me	0.63	0.62	-					
(4) I believe I can succeed at most any endeavor to which I set my mind	0.68	0.75	0.36	-				
(5) I will be able to successfully overcome many challenges	0.65	0.61	0.70	0.65	-			
(6) I am confident that I can perform effectively on many different tasks	0.61	0.65	0.56	0.62	0.55	-		
(7) Compared to other people, I can do most tasks very well	0.53	0.53	0.47	0.51	0.51	0.55	-	
(8) Even when things are tough, I can perform quite well	0.59	0.65	0.55	0.57	0.62	0.63	0.50	-

*Notes: Number of observations is 416. Average inter-item covariance: 0.41. Cronbach's alpha is .92.*



**Variable: Social Belonging**

**Appendix Table 11.1**

*Measurement Invariance Results for Social Belonging*

	$\chi^2$	(df)	$p > \chi^2$	Result
Test 1: Configural (Item 1)	3.70	1	0.05	Invariant
Test 1: Configural (Item 2)	2.50	1	0.11	Invariant
Test 2: Metric	0.30	4	0.59	Invariant
Test 3: Scalar	-	-	-	-
Test 4: Strict	-	-	-	-

**Appendix Table 11.2**

*Correlation of Social Belonging Items (Time 1)*

	(1)	(2)
(1) Unable to control the important things in your life	-	
(2) That things were going your way? (reversed)	-0.15	-

*Notes: Number of observations is 273. Average inter-item covariance: 0.35. Cronbach's alpha is .26.*

**Appendix Table 11.3***Correlation of Social Belonging Items (Time 2)*

	(1)	(2)
(1) Unable to control the important things in your life	-	
(2) That things were going your way? (reversed)	-0.32	-

*Notes: Number of observations is 280. Average inter-item covariance: 0.79. Cronbach's alpha is .48.*

**Appendix Table 11.4***Correlation of Social Belonging Items (all)*

	(1)	(2)
(1) Unable to control the important things in your life	-	
(2) That things were going your way? (reversed)	-0.24	-

*Notes: Number of observations is 553. Average inter-item covariance: 0.39. Cronbach's alpha is .57.*

**Variable: Coping Mechanisms (Self-distraction & Problem Solving)**

**Appendix Table 12.1**

*Correlation of Self-distraction Items (Time 2)*

	(1)	(2)
(1) I've been turning to work or other activities to take my mind off things.	-	-
(2) I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	0.42	-

*Notes: Number of observations is 240. Average inter-item covariance: 0.39. Spearman coefficient alpha is .44.*

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**Appendix Table 12.2**

*Correlation of Planning Items (Time 2)*

	(1)	(2)
(1) I've been trying to come up with a strategy about what to do.	-	-
(2) I've been thinking hard about what steps to take.	0.36	-

*Notes: Number of observations is 240. Average inter-item covariance: 0.39. Spearman coefficient alpha is .44.*

**Appendix Table 13**  
*City-wide Departments*

<b>Department</b>	<b>Number of Subdepartments</b>	<b>Percent of Subdepartments in City</b>
Communications	3	3.85%
Community Engagement	6	7.69%
Constituent and Intergovernmental Relations <sup>1</sup>	3	3.85%
Citizen Resources	3	3.85%
Downtown Business Bureau <sup>1</sup>	4	5.13%
Economic Development <sup>1</sup>	3	3.85%
Financial Services	6	7.69%
Fire <sup>1</sup>	4	5.13%
Human Resources	4	5.13%
Information Systems	6	7.69%
Legal/Judicial Charter Offices <sup>2</sup>	5	6.41%
Municipal Services	6	7.69%
Planning and Development Services	5	6.41%
Police	6	7.69%
Preservation <sup>1</sup>	3	3.85%
Special Facility Management <sup>1</sup>	2	2.56%
Transportation	5	6.41%
Water Resources	4	5.13%

*Notes: <sup>1</sup> Not included in dataset.*

*<sup>2</sup> City charter created sub departments. Some department names generalized to preserve City A anonymity.*

**Appendix Table 14***Summary Statistics on Variables of Interest for Panel Dataset*

Variable	N	Mean	SD	Min	Max
Employee Gender <sup>1</sup>	201	0.39	0.49	0	1
Employee Age	201	45.49	11.75	9	71
Employee Tenure in Position	208	7.90	7.07	1	31

*Notes: <sup>1</sup> Dummy variable (0=male and 1=female)***Appendix Table 15***Summary Statistics on Variables of Interest for Panel Dataset*

	N	
Employee Education Level	Less than high school	0
	High school graduate	9
	Some college	40
	2-year degree	22
	4-year degree	77
	Professional degree	58
	Doctorate	3
	Total	209
Employee Department	Community Service	120
	Communications and Public Affairs	8
	Financial Services	4
	Human Resources	5
	Information Systems	4
	Legal/Judicial Charter Offices	15
	Planning and Development Services	16
	Police	22
	Transportation	12
	Water Resources	4
Total	210	

**Appendix Table 16**  
*Correlation of Variables of Interest (panel)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Burnout	-						
(2) Stress	0.63	-					
(3) Instrumental Leadership	-0.29	-0.15	-				
(4) Affective Organizational Commitment	-0.24	-0.15	0.36	-			
(5) Self-efficacy	-0.18	-0.37	0.17	0.22	-		
(6) Social belonging	-0.39	-0.30	0.39	0.34	0.27	-	
(7) Turnover	0.26	0.18	-0.18	-0.35	-0.02	-0.17	-

*Notes: Number of observations is 190.*

**Appendix Table 18**

*Variable Examination: Cumulative Effect of Predictor Variables*

	On Burnout (Table 7)	On Stress (Table 8)
Instrumental Leadership and Affective Organizational Commitment (Model 5)	-0.36*** (0.09)	-0.17* (0.07)
Instrumental Leadership and Self-efficacy (Model 5)	-0.19 (0.13), NS	-0.23* (0.10)
Instrumental Leadership and Social Belonging (Model 5)	-0.29** (0.09)	-0.17 † (0.10)
Affective Organizational Commitment and Self-efficacy (Model 5)	-0.16 (0.12), NS	-0.14 (0.11), NS
Affective Organizational Commitment and Social Belonging (Model 5)	-0.25** (0.10)	-0.08 (0.09), NS
Social Belonging and Self-efficacy (Model 5)	-0.09 (0.12), NS	-0.14 (0.11), NS
Instrumental Leadership and Affective Organizational Commitment (Model 6)	-0.40*** (0.10)	-0.12 (0.10), NS
Instrumental Leadership and Self-efficacy (Model 6)	-0.22 † (0.13)	-0.26* (0.10)
Instrumental Leadership and Social Belonging (Model 6)	-0.21* (0.10)	-0.18 (0.11), NS
Affective Organizational Commitment and Self-efficacy (Model 6)	-0.23 † (0.13)	-0.10 (0.12), NS
Affective Organizational Commitment and Social Belonging (Model 6)	-0.23* (0.11)	-0.02 (0.10), NS
Social Belonging and Self-efficacy (Model 6)	-0.05 (0.13), NS	-0.15 (0.10), NS

*Notes: Robust standard errors reported in parentheses. N varies by model.*

*† p < .10, \* p < .05, \*\* p < .01, \*\*\* p < .001.*

**Appendix Table 19***Correlation of Variables of Interest (Time 2)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Burnout	-								
(2) Instrumental Leadership	0.26	-							
(3) Coping Mechanism: Self-distraction	0.42	-0.06	-						
(4) Coping Mechanism: Planning	0.54	-0.07	0.79	-					
(5) Employee Age	-0.19	-0.14	-0.18	-0.21	-				
(6) Employee Gender	-0.09	-0.03	-0.04	-0.20	-0.07	-			
(7) Employee Tenure in Position	-0.08	-0.10	-0.13	-0.17	0.45	-0.03	-		
(8) Employee Education	-0.01	0.03	0.05	0.08	0.04	-0.24	0.11	-	
(9) Employee Department	0.03	-0.18	-0.02	-0.10	0.07	0.05	0.07	-0.13	-

*Notes: Number of observations is 205.*



**Appendix Table 20***Model Estimates of Loadings for Self-Distraction Mediation Model (Measurement Model)***A. Loading Estimates**

<i>Variable</i>	<i>Measurement Variable</i>	<i>Loading</i>	<i>Std. Error</i>	<i>p-value</i>
<i>Burnout</i>	1. Do you feel worn out at the end of the working day?	1	-	-
	2. Are you exhausted in the morning at the thought of another day at work?	1.06	0.06	0.00
	3. Do you feel that every working hour is tiring for you?	0.97	0.05	0.00
	4. Do you have enough energy for family and friends during leisure time? (reversed)	-0.69	0.07	0.00
	5. Is your work emotionally exhausting?	0.99	0.06	0.00
	6. Does your work frustrate you?	0.93	0.07	0.00
	7. Do you feel burnt out because of your work?	1.17	0.07	0.00
<i>Coping Mechanism: Self-distraction</i>	1. I've been turning to work or other activities to take my mind off things.	1	-	-
	2. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	2.13	0.75	0.01
<i>Instrumental Leadership</i>	1. Has an understanding of what we as an organization need to achieve	1	-	-
	2. Understand what needs to change in our organization	1.26	0.09	0.00
	3. Ensures that his / her vision is understandable to employees	1.21	0.07	0.00
	4. Translates his vision into specific objectives	1.17	0.08	0.00
	5. Removes barriers that prevent me from achieving my goals	1.26	0.13	0.00

**Appendix Table 20***Model Estimates of Loadings for Self-Distraction Mediation Model (Measurement Model)*

6. Ensures that I have good opportunities to achieve my goals	1.26	0.11	0.00
7. Helps me learn from my mistakes	1.34	0.12	0.00
8. Gives me constructive feedback based on my mistakes	1.25	0.12	0.00

**B. Covariances of Measurement Errors**

<i>Measurement Items</i>	<i>Loading</i>	<i>Std. Error</i>	<i>p-value</i>
Instrumental Leadership Item 1 & Instrumental Leadership Item 2	0.18	0.07	0.01
Instrumental Leadership Item 3 & Instrumental Leadership Item 4	0.10	0.07	0.16
Instrumental Leadership Item 5 & Instrumental Leadership Item 6	0.28	0.11	0.01
Instrumental Leadership Item 7 & Instrumental Leadership Item 8	0.29	0.08	0.00

**Appendix Table 22***Model Estimates of Loadings for Planning Mediation Model (Measurement Model)***A. Loading Estimates**

<i>Variable</i>	<i>Measurement Variable</i>	<i>Loading</i>	<i>Std. Error</i>	<i>p-value</i>
<i>Burnout</i>	1. Do you feel worn out at the end of the working day?	1	-	-
	2. Are you exhausted in the morning at the thought of another day at work?	1.06	0.06	0.00
	3. Do you feel that every working hour is tiring for you?	0.97	0.05	0.00
	4. Do you have enough energy for family and friends during leisure time? (reversed)	-0.70	0.07	0.00
	5. Is your work emotionally exhausting?	0.99	0.06	0.00
	6. Does your work frustrate you?	0.93	0.07	0.00
	7. Do you feel burnt out because of your work?	1.17	0.07	0.00
<i>Coping Mechanism: Planning</i>	1. I've been trying to come up with a strategy about what to do.	1	-	-
	2. I've been thinking hard about what steps to take.	10.02	0.13	0.00
<i>Instrumental Leadership</i>	1. Has an understanding of what we as an organization need to achieve	1	-	-
	2. Understand what needs to change in our organization	1.26	0.09	0.00
	3. Ensures that his / her vision is understandable to employees	1.21	0.07	0.00
	4. Translates his vision into specific objectives	1.17	0.08	0.00
	5. Removes barriers that prevent me from achieving my goals	1.26	0.13	0.00
	6. Ensures that I have good opportunities to achieve my goals	1.26	0.12	0.00

**Appendix Table 22***Model Estimates of Loadings for Planning Mediation Model (Measurement Model)*

7. Helps me learn from my mistakes	1.34	0.12	0.00
8. Gives me constructive feedback based on my mistakes	1.25	0.12	0.00

**B. Covariances of Measurement Errors**

<i>Measurement Items</i>	<i>Loading</i>	<i>Std. Error</i>	<i>p-value</i>
Instrumental Leadership Item 1 & Instrumental Leadership Item 2	0.18	0.07	0.01
Instrumental Leadership Item 3 & Instrumental Leadership Item 4	0.10	0.07	0.17
Instrumental Leadership Item 5 & Instrumental Leadership Item 6	0.28	0.11	0.01
Instrumental Leadership Item 7 & Instrumental Leadership Item 8	0.29	0.08	0.00

**Appendix Table 23***Model Estimates of Loadings for Self-Distraction Mediation Model (Structural Model)***A. Regression Weights**

<i>Dependent Variable</i>	<i>Independent and Control Variables</i>	<i>Coefficient</i>	<i>Std. error</i>	<i>p-value</i>
Burnout	Instrumental Leadership	-0.25	0.06	0.00
	Coping Mechanism: Self-distraction	0.91	0.21	0.00
	Employee Age	-0.02	0.01	0.03
	Employee Gender	-0.14	0.10	0.19
	Employee Education	0.00	0.04	0.98
	Employee Tenure in Position	0.12	0.01	0.02
	Employee Department	-0.02	0.13	0.86

**B. Covariances of exogenous variables**

<i>Independent variables</i>	<i>Coefficient</i>	<i>Std. error</i>	<i>p-value</i>
Instrumental Leadership			
Coping Mechanism: Self-distraction	-0.07	0.04	0.06
Employee Age	-0.01	0.01	0.20
Employee Gender	-0.07	0.16	0.65
Employee Education	-0.04	0.05	0.44
Employee Tenure in Position	-0.01	0.01	0.41

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**Appendix Table 23***Model Estimates of Loadings for Self-Distraction Mediation Model (Structural Model)*

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	Employee Department	-0.33	0.18	0.07
Coping Mechanism: Self-distraction	Employee Age	-0.00	0.01	0.39
	Employee Gender	-0.04	0.09	0.69
	Employee Education	-0.00	0.02	0.97
	Employee Tenure in Position	-0.10	0.00	0.03
	Employee Department	-0.01	0.10	0.91

**Appendix Table 24***Model Estimates of Loadings for Planning Mediation Model (Structural Model)***A. Regression Weights**

<i>Dependent Variable</i>	<i>Independent and Control Variables</i>	<i>Coefficient</i>	<i>Std. error</i>	<i>p-value</i>
Burnout	Instrumental Leadership	-0.15	0.07	0.02
	Coping Mechanism: Planning	1.17	0.23	0.00
	Employee Age	-0.00	0.01	0.72
	Employee Gender	0.20	0.12	0.09
	Employee Education	-0.01	0.04	0.75
	Employee Tenure in Position	0.02	0.01	0.12
	Employee Department	0.18	0.14	0.20

**B. Covariances of exogenous variables**

<i>Independent variables</i>		<i>Coefficient</i>	<i>Std. error</i>	<i>p-value</i>
Instrumental Leadership	Coping Mechanism: Planning	-0.14	0.06	0.01
	Employee Age	-0.01	0.01	0.21
	Employee Gender	-0.07	0.16	0.65
	Employee Education	-0.03	0.06	0.44
	Employee Tenure in Position	-0.01	0.01	0.41

**Appendix Table 24**

*Model Estimates of Loadings for Planning Mediation Model (Structural Model)*

		-0.33	0.19	0.09
	Employee Department			
Coping Mechanism: Planning	Employee Age	-0.02	0.01	0.01
	Employee Gender	-0.31	0.14	0.03
	Employee Education	0.01	0.05	0.78
	Employee Tenure in Position	-0.01	0.01	0.40
	Employee Department	-0.18	0.12	0.14



APPENDIX B:  
ITEM WORDINGS

### **Affective Organizational Commitment (Vandenberghe & Bentein, 2009)**

The person I am rating... (*Strongly disagree, Disagree, Somewhat Disagree, Neither agree nor disagree, Somewhat Agree, Agree, Strongly agree*)

1. I feel a strong sense of belonging to my organization
2. I really feel as if my organization's problems are my own
3. My organization has a great deal of personal meaning for me
4. I feel emotionally attached to my organization

### **Burnout (Kristensen et al., 2005)**

The person I am rating... (*To a very low degree, To a low degree, Somewhat, To a high degree, To a very high degree*)

1. Do you feel worn out at the end of the working day?
2. Are you exhausted in the morning at the thought of another day at work?
3. Do you feel that every working hour is tiring for you?
4. Do you have enough energy for family and friends during leisure time? (reversed)
5. Is your work emotionally exhausting?
6. Does your work frustrate you?
7. Do you feel burnt out because of your work?

### **Brief COPE Inventory (Carver, 1997)**

*1 = I haven't been doing this at all; 2 = I've been doing this a little bit; 3 = I've been doing this a medium amount; 4 = I've been doing this a lot*

1. I've been turning to other activities to take my mind off things. (Self-distraction)
2. I've been trying to come up with a strategy about what to do. (Planning)
3. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping. (Self-distraction)
4. I've been thinking hard about what steps to take. (Planning)

### **Instrumental Leadership (Antonakis and House, 2014)**

The person I am rating... (*Strongly disagree, Disagree, Somewhat Disagree, Neither agree nor disagree, Somewhat Agree, Agree, Strongly agree*)

1. Has an understanding of what we as an organization need to achieve
2. Understand what needs to change in our organization
3. Ensures that his / her vision is understandable to employees
4. Translates his vision into specific objectives
5. Removes barriers that prevent me from achieving my goals
6. Ensures that I have good opportunities to achieve my goals
7. Helps me learn from my mistakes
8. Gives me constructive feedback based on my mistakes

### **Perceived Stress Scale (Cohen & Williamson, 1988)**

Over the past three months, have you felt...? (*Never, Almost never, Sometimes, Fairly Often, Very Often*)

1. Unable to control the important things in your life

2. That things were going your way? (reversed)
3. You could not cope with all the things that you had to do?
4. You were on top of things? (reversed)

**Self-efficacy (Chen, Gully, & Eden, 2001)**

The person I am rating... (*Strongly disagree, Disagree, Somewhat Disagree, Neither agree nor disagree, Somewhat Agree, Agree, Strongly agree*)

1. I will be able to achieve most of the goals I have set for myself
2. When facing difficult tasks, I am certain that I will accomplish them
3. In general, I think that I can obtain outcomes that are important to me
4. I believe I can succeed at most any endeavor to which I set my mind
5. I will be able to successfully overcome many challenges
6. I am confident that I can perform effectively on many different tasks
7. Compared to other people, I can do most tasks very well
8. Even when things are tough, I can perform quite well

**Social Belonging (Linos, Ruffini, & Wilcoxon, 2021)**

(*Strongly disagree, Disagree, Somewhat Disagree, Neither agree nor disagree, Somewhat Agree, Agree, Strongly agree*)

1. When something bad happens at work, I feel that maybe I don't belong
2. There is someone at work I can talk to about my day-to-day problems if I need

APPENDIX  
IRB APPROVAL



APPROVAL: EXPEDITED REVIEW

[Ulrich Jensen](#)  
[WATTS: Public Affairs, School of](#)  
 602/496-0447  
[Ulrich.Jensen@asu.edu](mailto:Ulrich.Jensen@asu.edu)

Dear [Ulrich Jensen](#):

On 2/26/2021 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Charisma in the Public Sector: A Large-Scale Field Experiment
Investigator:	<a href="#">Ulrich Jensen</a>
IRB ID:	STUDY00013514
Category of review:	
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> <li>• 1.Protocol.docx, Category: IRB Protocol;</li> <li>• 10.Local_Gov_Charisma_Post-Training_Speech_Survey_2021_Participant.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• 11.Local_Gov_Charisma_Pre-Training_Survey_2021_Employee.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• 12.Local_Gov_Charisma_Pre-Training_Survey_2021_Peer.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• 13.Local_Gov_Charisma_Pre-Training_Survey_2021_Supervisor.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• 2.Recruitment_Script.pdf, Category: Recruitment</li> </ul>

	<p>Materials;</p> <ul style="list-style-type: none"> <li>• 3.Outline of Training Workshop A.pdf, Category: Other;</li> <li>• 4.Outline of Training Workshop B.pdf, Category: Other;</li> <li>• 5.Consent_Workshop_Template_Participants.pdf, Category: Consent Form;</li> <li>• 6.Consent_Survey_Template_Participants.pdf, Category: Consent Form;</li> <li>• 7.Consent_Survey_Template_Employees.pdf, Category: Consent Form;</li> <li>• 8.Consent_Survey_Template_Peers_Non-Subject Supervisors.pdf, Category: Consent Form;</li> <li>• 9.Local_Gov_Charisma_Pre-Training_Survey_2021_Participant.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• Letter of Cooperation, Category: Other;</li> <li>• Suppl_WPT-R for IRB.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> </ul>
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The IRB approved the protocol from 2/26/2021 to 2/25/2023 inclusive. Three weeks before 2/25/2023 you are to submit a completed Continuing Review application and required attachments to request continuing approval or closure.

If continuing review approval is not granted before the expiration date of 2/25/2023 approval of this protocol expires on that date. When consent is appropriate, you must use final, watermarked versions available under the "Documents" tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: