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An Examination of the Relationships Between Stressors, Correctional Burnout, and Job Outcomes

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AN EXAMINATION OF THE RELATIONSHIPS BETWEEN STRESSORS, CORRECTIONAL
BURNOUT, AND JOB OUTCOMES

by

ERIN K. ROGERS

A dissertation submitted to the Graduate Faculty in Criminal Justice in partial fulfillment of
the requirements for the degree of Doctor of Philosophy, The City University of New York

2018

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Erin K. Rogers

This manuscript has been read and accepted for the Graduate Faculty in
Criminal Justice in satisfaction of the dissertation requirement for the degree of
Doctor of Philosophy.

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ABSTRACT

An Examination of the Relationships between Stressors, Correctional
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by

Erin K. Rogers

Advisor: Jeff Mellow

While most jobs can cause work related stress, correctional workers experience exposure to stressors that often result in a more serious condition known as burnout. The effects of burnout are far more detrimental than average work related stress yet, there is a dearth of knowledge and research on correctional burnout. This study examines how work characteristics relate to correctional burnout (e.g. emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment) and job outcomes (e.g. job satisfaction, organizational commitment, and turnover). It also assesses the relationship between the three aspects of burnout and the three types of job outcomes listed above. Data from the Federal Bureau of Prisons *Prison Social Climate Survey (PSCS)* is used to address questions of how stressors contribute to the three dimensions of burnout and how the dimensions of burnout relate to job outcomes. . The PSCS is issued annually to a stratified random sample of all Federal Bureau of Prisons employees to solicit employee views of organizational and institutional practices. The survey consists of approximately 50 Likert scale questionnaire items measuring employee perceptions of organizational operations, supervision, organizational commitment, burnout, turnover, and job satisfaction. Bivariate and multivariate analysis results support the seven research hypotheses and indicated significant statistical relationships between work characteristics, burnout, and job

outcomes. Job demands such as dangerousness and high workload increase burnout and turnover rates while decreasing job satisfaction and organizational commitment. Job resources such as supervisory quality and fairness, staff camaraderie, and high decisional authority reduce the rates of burnout and turnover while increasing job satisfaction and organizational commitment. ,

Keywords: correctional officers, correction, burnout, fatigue, organizational stressors, job outcomes

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An Examination of the Relationships between Stressors, Correctional Burnout, and Job Outcomes

Introduction

Society has come to realize that the incarceration of approximately 1.7 million people in the United States (Bureau of Justice Statistics, 2016) has negative effects not only for those who are incarcerated but, also on society at large. However, unlike the plethora of research focusing on the effects of stress in other criminal justice occupations such as police officers, little to no attention is paid to the effects of the correctional environment on the nearly quarter of a million individuals working in correctional settings (Bureau of Justice Statistics, 2015). This is surprising considering the rapid growth of the number of incarcerated with an unmatched growth of correctional staff. The imbalanced ratio of inmates to staff has some researchers stating that the increasing frequency and duration of exposure to stressors are related to correctional burnout. The American Federation of Government Employees estimates that the inmate population in the federal prison system has increased by 41 percent since 2000 while the number of correctional employees has increased by only 19 percent (Fifield, 2016), causing correctional agencies to supervise larger inmate populations with fewer employees and management resources. While the federal prison system was formed to ensure more humane conditions for both correctional workers and employees, even federal correctional staff experience high rates of burnout (Keve, 1995).

A report evaluating jobs based on income, environmental factors, work related stress, and physical demands determined that correctional positions are among the 10 least desirable jobs (Smith, 2014). The mandatory retirement age for federal correctional

employees is 57 years old and a U.S. Department of Justice Programs Diagnostic Center Study (Brower, 2013) estimates that the average lifespan of correctional officers is less than 59 years old; compared to the average American lifespan of 78 years old. Correctional workers experience higher rates of stress, anxiety, depression, Post-Traumatic Stress Disorder (PTSD), substance abuse, and divorce than the general population (Bourbonnais, Jauvin, Dussault, & Vezina, 2007; Ghaddar, Ronda, Nolasco, Alvares, & Mateo, 2011; Harvey, 2014; Spinaris, Denhof, & Kellaway, 2012; Weir, Stewart, & Morris, 2012). Additionally, correctional employees experience health issues such as ulcers, headaches, and cardiovascular disease at higher rates than the general public (Rogers, 2001; Denhof & Spinaris, 2014).

The consequences of burnout can have negative effects on job outcomes such as low job satisfaction, a lack of organizational commitment and higher rates of employee turnover (Lambert, Hogan, Griffin, & Kelley, 2015; Schaufeli & Peeters, 2000). High turnover in correctional institutions also creates more dangerous environments by widening the inmate to staff ratio, increasing mandatory overtime, and resulting in unfilled posts (Finney, Stergiopoulos, Hensel, Bonato, & Dewa, 2013; Higgins, Tewksbury, & Denney, 2012). In the United States the average job turnover rate has fluctuated between three and four percent since 2006 (Bureau of Labor Statistics, 2016). However, correctional turnover rates average between 20 and 40 percent (Fifield, 2016), with some state facilities reaching as high as a 62 percent turnover rate (Grissom, 2014). Since 2010, correctional turnover rates have increased from 21 to 30 percent in Kansas and 19 to 31 percent in Nebraska (Fifield, 2016).

Statement of the Problem

Many of the negative effects of working in a correctional environment are collectively referred to as burnout; most commonly defined by Maslach and Jackson (1981) in the Maslach Burnout Inventory (MBI) as emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment. The aspects of burnout are largely influenced by three types of work characteristic stressors: 1. organizational, 2. operational, and 3. traumatic. Organizational stressors are primarily administrative and include role conflict, demanding social interactions, agency support and fairness, and adequate education or training regarding coping strategies. Operational stressors refer to day-to-day dynamics and include workload, mandatory overtime, decision authority, physical conditions, and availability of physical resources. Traumatic stressors refer to the experience or witnessing of death and violence through direct or indirect means (American Psychiatric Association, 2013). Direct traumatic stressors include being assaulted and witnessing deaths while indirect exposure refers to reviewing case files, reports, and after action reviews that contain graphically violent material.

It is estimated that 37 percent of correctional workers experience occupational burnout (Finney et al., 2013). Levels of burnout can fluctuate depending on the frequency and duration of exposure to organizational, operational, and traumatic stressors. The most common stressors are an unclear understanding of one's job, the authority to complete job duties, work overload, and camaraderie or support from colleagues. The most frequently reported aspect of burnout is emotional exhaustion (Lambert, Hogan, Cheeseman, Jiang, & Khondaker, 2012) and prior studies typically focus on the assessment of the impact of several different types of stressors on occupational burnout. However, very few studies

focus on the possible consequences or outcomes of correctional burnout (Lambert, Hogan, Griffin, & Kelley, 2015) such as job satisfaction, organizational commitment, and employee turnover intent. The differences in how burnout is measured, how correctional staff is defined, and the type of institutions used in the studies lead to varied outcomes and an inability to generalize the findings across other correctional settings (Garland, 2004; Gerstein, Topp, & Correll, 1987; Lambert & Hogan, 2010; Shamir & Drory, 1982; Whitehead & Lindquist, 1986; Wright & Saylor, 1991). Furthermore, little of the current research addresses the outcomes of burnout such as organizational commitment, job satisfaction, and turnover (Camp, 1994; Lambert, 2007; Lambert & Hogan, 2007).

Importance of the Study

With a dearth of research on correctional burnout, the current research study aims to build on prior research by using the most recent federal PSCS dataset from 2015, which is less frequently tested than state correctional datasets. Additionally, the current study assesses the relationships between different variables than tested in previous research and by using the aspects of burnout as independent variables to predict job outcomes. The purpose of this study is to assess the three dimensions of burnout (i.e., 1. emotional exhaustion, 2. depersonalization, and 3. a decreased sense of personal accomplishment) from Maslach's Burnout Inventory using the Job Demands-Resource Model (JD-R). This will allow for the identification of the relationship between specific stressors and correctional burnout while also focusing on the relationship between burnout and job outcomes. Unlike previous organizational models, the JD-R accounts for different types of resources such as physical, psychological, and social aspects. Additionally, the JD-R allows for consideration of positive and negative effects of social and organizational support.

There are three main research questions that are addressed in this study:

RQ1: How do specific organizational, operational, and traumatic demands and resources relate to correctional burnout?

H1: Job demands of increased dangerousness (IV) increased workload (IV), and decreased decisional authority (IV) will positively relate to burnout (DV).

H2: Increases in organizational and supervisory fairness (IV), supervisory support and quality (IV), and coworker support (IV) will have a negative relationship burnout (DV).

RQ2: How do specific organizational, operational, and traumatic stressors relate to job outcomes such as job satisfaction, organizational commitment, and turnover?

H3: Increased dangerousness (IV) and workload (IV) will negatively relate to job satisfaction (DV) and organizational commitment (DV) and positively relate to turnover (DV) while increased decisional authority (IV) will relate negatively to turnover (DV) and positively to job satisfaction (DV) and organizational commitment (DV).

H4: Organizational and supervisory fairness (IV), supervisory support and quality (IV), and coworker support (IV) will relate positively with job satisfaction (DV) and organizational commitment (DV) while negatively relating to turnover (DV).

RQ3: How does burnout relate to job satisfaction, organizational commitment, and turnover?

H5: Burnout (IV) will negatively relate to job satisfaction (DV).

H6: Burnout (IV) will negatively relate to organizational commitment (DV).

H7: Burnout (IV) will positively relate to turnover (DV).

Existing correctional burnout research indicates personal characteristics (e.g. age, gender, race, ethnicity, and education) do not typically have a significant relationship with burnout or job outcomes (Lambert, Hogan, & Cheeseman, 2011; Lambert & Kim et al., 2015; Paoline, 2015). Therefore, the focus of the current study is the relationship between work characteristics, burnout, and job outcomes. However, bivariate analysis will be conducted to confirm that there are no significant relationships between personal characteristics, burnout, and job outcomes. More importantly, this study will analyze the relationship between burnout and job outcomes by using the three aspects of burnout as independent variables and job outcomes as dependent variables. The majority of correctional burnout research has used job outcomes as the independent variable and aspects of burnout as the dependent variables. The findings of significant relationships between organizational commitment and the three dimensions of burnout by Garland et al. (2014) and Lambert and Kelley et al. (2013) and the fact that little research has been conducted testing the relationship between job outcomes and burnout indicates that additional research regarding this relationship is warranted. Furthermore, the dearth of research examining these relationships demonstrates a need for continued assessment. Lastly, the current study will use secondary data from the Federal Bureau of Prisons (FBOP) PSCS, which will expand on the currently published studies that predominantly use state and private correctional facilities (Lambert, Hogan, & Griffin et al., 2015).

This study include four main sections: literature review, methodology, statistical analysis, and policy implications. The literature review begins with a thorough definition and details of the origins of burnout, including rates of burnout across different professions, and the different categories of stressors related to burnout. The development

of the Maslach Burnout Inventory is discussed as well as a justification for the use of the MBI as a means to situate the current study rather than other assessment tools. The three dimensions of burnout are defined and discussed in relation to the correctional environment. Next, the history, development, structure, and staffing of the Federal Bureau of Prisons is presented. Then, job outcomes such as job satisfaction, organizational commitment, and turnover intentions are discussed. Lastly, the theoretical framework of the Job Demands-Resource Model (JD-R) and conservation of resources (COR) theory are presented.

The methodology section includes the overall approach to the study, research questions, hypotheses, a detailed discussion of the PSCS and the data, a brief overview and history of the Federal Bureau of Prisons, how the data analysis is conducted, and limitations of the current study. The statistical analysis section presents the descriptive, bivariate, and multivariate data results. The final section discusses the methodological, substantive, and theoretical contributions as well as the practical importance of the current study. Ideally, this study contributes to the current research on correctional burnout by assessing not only burnout but, the consequences associated with burnout (i.e., job satisfaction, organizational commitment, and turnover).

Literature Review

Burnout

The term burnout has been part of our lexicon since 1974 when Freudenberger defined job burnout as a state of exhaustion resulting from one's occupation that manifests into physical and behavioral symptoms. While the concept of burnout has been expanded over the years with research and new developments, Freudenberger's (1974) description of burnout is the onset of psychosomatic symptoms such as headaches, gastrointestinal issues, and sleeplessness when an individual has exhausted their resources and energies due to job stress. Maslach (1976) simultaneously coined the term burnout while conducting research with workers in the helping professions. In addition to the psychosomatic symptoms, the burnt out employees will often isolate themselves, verbally express negative attitudes, become cynical, and oppose change (Cherniss, 1980; Freudenberger, 1974; Maslach, 1976). The original concept and definition of burnout developed by Freudenberger (1974) and Maslach (1976) still serves as the foundation for current research, theories, and assessment tools relating to burnout. While the construction of the term burnout originated as a stress model from observations of individuals involved in healthcare and human services (Maslach & Jackson, 1981; Maslach, Schaufeli, & Leiter, 2001), the concept of burnout has adapted over the years and is now applicable to a wide variety of occupations including correctional environments.

Maslach and Jackson (1981) expanded on Freudenberger's definition and provide a more detailed description of job burnout by constructing three distinct aspects of burnout manifestation: emotional exhaustion, depersonalization, and perceived occupational ineffectiveness. Maslach and Jackson (1981) developed 47 statements related to burnout

that included dimensions of frequency and intensity. They then tested her instrument on a sample of 605 individuals in the helping professions. After the administration of the first instrument, the number of items was reduced from 47 to 25 based on the application of selection criteria. The second version of the instrument was then administered to 420 individuals in the helping professions. Using factor analysis, Maslach and Jackson (1981) found the second version of her instrument to be reliable and valid in testing the three dimensions of burnout.

Emotional exhaustion refers to a state of fatigue when an individual has depleted their physical and emotional resources to the point where they become ineffective in the performance of their job duties (Maslach & Jackson, 1981; Maslach et al., 2001).

Depersonalization is characterized by a sense of detachment from the work and increasingly negative attitudes towards the recipients of services or the clients to which care is provided (Maslach & Jackson, 1981; Maslach et al., 2011). Lastly, perceived occupational ineffectiveness refers to an employee perception that they are not achieving their work goals or they no longer have a positive impact through their work (Maslach & Jackson, 1981; Maslach et al., 2011). Of the three dimensions of burnout, emotional exhaustion is the central tenant of burnout and it is the most commonly reported aspect in research regarding correctional burnout (Gould, Watson, Price, & Valliant, 2013; Maslach et al., 2001).

Empirics on Burnout in Corrections. While many occupations can be described as stressful, the job stress experienced in most occupations does not lead to burnout. Stress is common but, burnout is a disorder that alters an individual to the extent that they display the traits described by Maslach and Jackson (1981): emotional exhaustion,

depersonalization, and a decreased sense of personal accomplishment. The fields that experience higher rates of burnout include the helping professions such as nurses, doctors, social workers, teachers, police officers, correctional officers, and firefighters (Freudenberger, 1974; Maslach & Jackson, 1981; Maslach et al., 2001).

Although it is difficult to find precise rates of burnout across multiple professions, Finney et al. (2013) used Maslach's (1976) definition of burnout in their systematic review of research on burnout in correctional employees. They found that an estimated 37 percent of correctional workers experience occupational burnout (Finney et al., 2013).

Approximately 48 percent of social workers experience elevated levels of personal distress resulting from their work (Wharton, 2008), however, personal distress does not meet the threshold of the disorder known as burnout. In Steiner and Wooldredge's (2015) study, work related stress is experienced by 50 percent of correctional officers, while the general public work related stress ranges from 26 to 40 percent. Rates of burnout among doctors and nurses are estimated at 40 and 50 percent respectively due to long hours, administrative burdens, and the stress of caring for others (Alexander, 2009; White, n.d). McCarty and Skogan (2013) found that approximately 20 percent of police officers experience symptoms of burnout. One should use caution when interpreting burnout rate percentages however, since many of the sources of these rates do not precisely describe how burnout is measured and if it is differentiated from work related stress as opposed to burnout.

Burnout is a concern in correctional environments that can lead to personal health issues such as anxiety, depression, and insomnia, as well as poor performance outcomes at work such as low organizational commitment, low job satisfaction, turnover, and

absenteeism (Schaufeli & Salanova, 2014). Lambert, Barton-Bellessa, and Hogan (2015) estimate that 70 to 80 percent of the costs of correctional institutions relate to staff. The increasing awareness of the effects of burnout both on the individual and on the employer has led to more research that attempts to pinpoint the specific antecedents and their relationship to the three dimensions of burnout. Occupational burnout may develop as exhibited by any or all of the three aspects as defined by Maslach; however, emotional exhaustion is the most frequently reported aspect of burnout (Lambert, Hogan, Cheeseman, Jiang, & Khondaker, 2012). While it is necessary to empirically study the relationship between all three types of stressors as they relate to the aspects of burnout, the majority of research focuses on organizational and operational stressors rather than traumatic stressors (Lambert, Hogan, & Griffin et al., 2015).

The current research on burnout in correctional settings typically focuses on United States government facilities that house adult offenders. Of the 53 correctional burnout studies published between 1981 and 2014, 45 of the studies used participants from adult state correctional facilities and nine of the studies assessed federal correctional staff (Lambert, Hogan, Griffin et al., 2015). While the body of research on correctional burnout is slowly growing, there are still difficulties and gaps in current research and limitations for future research which require more research in the field of correctional burnout. While the MBI is the most consistently used burnout assessment, not all studies utilize the MBI, which leads to different measurements of burnout. As Lambert, Hogan, & Griffin et al. (2015) note, there is no single definition of correctional staff across the current literature. Some studies assess burnout only in correctional officers while other studies include either a select number of other positions or a wider variety of other positions.

Maslach Burnout Inventory. Several assessment tools have been developed to measure burnout such as the Oldenburg Burnout Inventory (OLBI), the Copenhagen Burnout Inventory (CBI), and the Maslach Burnout Inventory (MBI). However, the MBI is the original and most widely and consistently used measurement tool of burnout. Furthermore, the MBI is most appropriate assessment to use as a framework for which to situate the current study since the survey used to collect the data (Prison Social Climate Survey) in the current study contains several items modeled after the MBI. Furthermore, Maslach's definition of burnout in the construction of the MBI is the best suited definition for the purpose of the current study and the most widely accepted and utilized definition in burnout research.

The original MBI was intended for use in human service professions, to include law enforcement personnel, and is now referred to as the MBI-Human Service Survey (MBI-HSS). Other versions of the MBI include the MBI-Educators' Survey (MBI-ED) used for educators and the MBI-General Survey (MBI-GS) used for general professionals outside the human services professions.

The MBI-HSS is the original version and is used to assess the three scales of burnout (i.e., emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment) in the human service professions. The assessment tool consists of 22 Likert scale statements regarding attitudes and beliefs and each statement is measured on two dimensions: frequency and intensity. Each item response ranges from one to six where one indicates 'a few times a year' and six indicates 'everyday'. There are nine items on the emotional exhaustion subscale, five on the depersonalization subscale, and eight items on the personal accomplishment scale. Research utilizing the MBI-HSS confirmed Maslach's

(1976) prior hypotheses that individuals who are burnt out are not satisfied with growth and development opportunities at work, burnout is related to job turnover, individuals experiencing burnout prefer to work less with people, burnout interferes with relationships in general, and burnout is linked to stress related outcomes such as insomnia (Maslach & Jackson, 1981).

The most recent version of the Maslach Burnout Inventory, the MBI-GS, was published in 1996. This version was modified to accommodate occupations outside the human services. The three scales on the MBI-GS are exhaustion, cynicism, and professional efficacy. The exhaustion and efficacy scales measure the same items as the original two scales; however, the cynicism scale diverges from the original depersonalization scale. Depersonalization in the MBI-HSS refers the process of emotionally detaching from clients as a means of handling emotional stressors of work (Maslach et al., 2001). Cynicism, as measured in the MBI-GS, refers to distancing oneself from the work more so than from human clients (Maslach et al., 2001). While the MBI-GS can be applied to any type of occupation, the MBI-HSS is the most appropriate version to situate the current study in due to the human interaction in corrections and the definition of depersonalization as a detachment from clients rather than the work itself.

Demerouti, Bakker, Nachreiner, and Schaufeli (2001) argue that Maslach's definition of burnout restricts the application of burnout to the human services. However, the modified versions of the MBI allow for the application to occupational fields outside of the human services. Furthermore, much of the research on burnout in correctional environments uses the MBI as the preferred measurement tool (Lambert, Hogan, & Griffin et al., 2015).

Types of Stressors

Much of the research on correctional burnout focuses on the environmental stressors, or demands, that employees must cope with and the relationship between those stressors and the dimensions of burnout. While some researchers divide environmental stressors into two categories (organizational and traumatic) (Finney et al., 2013), Denhof, Spinaris, and Morton (2014) offer a more specific division of environmental stressors by identifying three categories: organizational, operational, and traumatic stressors. Additionally, much of the research on correctional burnout includes an assessment of personal characteristics such as age, race, gender, marital status, and education.

Correctional staff routinely experience organizational, operational, and traumatic stressors which contribute to occupational burnout as manifested by emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment (Demerouti et al., 2001; Denhof et al., 2014; Maslach et al., 2001; Maslach & Jackson, 1981). However, the level of burnout fluctuates and is influenced by the level of exposure to stressors. The division of stressors allows researchers to assess the effects of certain stressors and then develop interventions that may help correctional employees cope with the effects of burnout (Brough & Biggs, 2013). Of the three categories of work stressors, organizational and operational stressors are more influential in the onset of occupational burnout than traumatic stressors and demographic characteristics of correctional staff (Finney et al., 2013; Griffin, Hogan, & Lambert, 2012; Higgins et al., 2012; Hsu, 2011). The three categories of stressors are each defined below followed by a discussion of how specific stressors relate to the outcomes of burnout (i.e., job satisfaction, organizational commitment, and turnover).

Personal Characteristics. Personal characteristics refer to individual level factors inherent to each specific employee rather than the work environment. Commonly tested personal characteristics are age, race, gender, and education level. The consensus among past research is that personal demographic characteristics of employees are not good predictors of burnout and job outcomes compared to workplace variables such as fair treatment, decisional authority, role conflict, organizational support, job stress, and role ambiguity (Hogan et al., 2013; Lambert, 2004; Lambert & Barton-Bellessa et al., 2014; Lambert, Hogan & Cheeseman, 2011). Additionally, Schaufeli and Peeters (2000) review of 43 studies on job stress and burnout found no significant relationships between personal characteristics and burnout. While personal characteristics are not the focus of the current research study, basic statistical analysis is used in this study to determine if there are any significant relationships that may need to be explored further.

Work Characteristics. Work characteristics are divided into three categories of environmental stressors (i.e., organizational, operational, and traumatic). For a brief overview of the types of stressors in each category refer to Table 1.

Organizational. Organizational stressors, as defined by Finney et al. (2013), include any stressor that influences the structure and climate of the correctional institution. Finney et al. (2013) also favor Cooper and Marshall's (1976) five categories of organizational stressors: intrinsic to the job, role within the organization, career development, relationships at work, and organizational structure and climate. However, the prior definition and division of organizational stressors is general and the more specified categorization of stressors provided by Denhof et al., (2014) is more appropriate for the current review and study. Denhof et al. (2014) distinguish organizational stressors from

operational stressors as those that relate to aspects of the job that involve people; such as supervisory support, agency support, coworker support, interpersonal conflict, role conflict, coping skills training and education, and quality of supervision.

Organizational stressors are shown as the antecedents with the most positive correlation to the burnout dimension of emotional exhaustion, which is the most frequently reported dimension, depersonalization, and perceived occupational ineffectiveness (Griffin et al., 2012; Lambert, Hogan, Cheeseman, & Jiang et al., 2012). Lambert, Hogan, Barton-Bellessa et al. (2012) report that the organizational stressors of supervisor trust and management trust negatively correlate to emotional exhaustion indicating that employees who trust the supervisors and administrators will experience less emotional exhaustion. Bourbonnais et al. (2007) found that 18 percent of correctional officers reported being intimidated by their supervisors. The significant consequences of the emotional exhaustion component of burnout are the positive correlations with correctional employee life satisfaction, absenteeism, and turnover intent (Lambert and Barton-Bellessa et al., 2015).

Stressful social interactions or interpersonal conflicts are often experienced by correctional workers who interact more frequently with inmates. Correctional workers are the first to confront inmate frustrations and this interaction contributes to emotional exhaustion (Boudoukha, Altintas, Rusinek, Fantini-Hauwel, & Hautekeete, 2012). In order to minimize the emotional exhaustion from stressful social interactions, correctional workers learn to depersonalize, allowing them to distance themselves from inmates who become emotionally draining (Boudoukha et al., 2012).

Operational. Operational stressors are those demands in correctional institutions that are more logistical in nature (Denhof et al., 2014). Examples of operational stressors

include the closed work environment, work overload, mandatory overtime, overcrowding, limited resources, low decision authority, hyper-vigilance, understaffing, low salary, budget cuts, reduction in force (layoffs), and employee benefits such as pension options, health coverage, and employee programs (Bierie, 2012; Brower, 2013; Denhof et al., 2014; Finney et al., 2013; Higgins et al., 2012).

Higgins et al. (2012) conducted a study to validate a work stress measurement in two Kentucky correctional facilities. Based on a nonrandom sample of 228 staff surveys, they found that operational stressors such as understaffing have significant negative effects on correctional employees' work stress. Understaffing can result in unfilled posts, mandatory overtime, higher inmate-to-staff ratios, and lower levels of staff vigilance (Higgins et al., 2012). Similar to understaffing, overcrowding results in less officer safety, increased levels of violence, decreased job performance, and physical health problems (Martin, Lichtenstein, Jenkot, & Forde, 2012). The operational stressors of job autonomy and job variety negatively relate to emotional exhaustion, indicating that when staff feel valued and are able to utilize more skills they are less likely to experience burnout (Griffin et al., 2012; Lambert, Hogan, Cheeseman, & Jiang et al., 2012; Schaufeli & Peeters, 2000). Bierie (2012) found that physical structures of prisons and the physical conditions such as noise levels, lack of privacy, and small or cluttered environments can significantly impair hearing, increase risk for hypertension, and increase sleep disturbances. Furthermore, correctional staff who perceived their physical work environment as harsh reported higher rates of psychological and physical problems such as poor concentration, depression, headaches, sleep disturbances, and gastrointestinal issues (Bierie, 2012).

Traumatic. Traumatic stressors refer to employee exposure to violent incidents, threats of violence, or death and they can include both direct (primary) and indirect (secondary) exposure (Denhof et al., 2014). While statistics on traumatic incidents are not widely available, Keinan and Malach-Pines (2007) found that 38 percent of a sample of 496 Israeli correctional employees had experienced physically traumatic stressors involving inmates. The traumatic stressors included being assaulted, witnessing a colleague being assaulted, and witnessing an inmate being assaulted.

Direct exposure refers to the first-hand experience of being threatened or assaulted or the direct witnessing of another person being threatened with violence, assaulted, or killed (APA, 2013; Denhof et al., 2014; Spinaris & Denhof, 2012). Secondary traumatic stressors include the same types of violent incidents but, they are not experienced first-hand; rather, they are experienced through second-hand means such as the reading of incident reports and after action reports, reviewing offender files, or reviewing surveillance footage of violent incidents (APA, 2013; Denhof et al., 2014; Spinaris et al., 2012).

Between 1999 and 2008, 38 percent of nonfatal injuries sustained by correctional staff were the result of assaults and violent acts and correctional officers sustained the highest rate of work related injuries in 2008 and 2009 (Higgins et al., 2012; Konda, Reichard, & Tiesman, 2012). In 2009, there were 1,902 inmate assaults on federal correctional employees (Konda et al., 2012) and Gordon, Proulx, and Grant (2013) found that 73 percent of their sample of correctional staff reported a fear of being assaulted by an inmate while 83 percent believed it was likely that they would be assaulted. Bourbonnais et

al. (2007) found that 78 percent of correctional officers reported that inmates were the main source of intimidation.

Table 1: Categories of burnout stressors: personal & work characteristics

PERSONAL CHARACTERISTICS	WORK CHARACTERISTICS		
Demographics	Organizational Stressors	Operational Stressors	Traumatic Stressors
Age	Role conflict	High workload	Witness staff assault/death
Race	Demanding social interaction	Mandatory overtime	Witness inmate assault/death
Ethnicity	Organizational support	Low decision authority	Personally assaulted (minor)
Gender	Coping strategies training	Harsh physical conditions	Personally assaulted (major)
Relationship status	Supervisor trust & support	Physical resources available	Number of medical assessments received
Number of children	Management trust & support		Number of OWCP days used
Education level	Organizational fairness		Perception of inmate dangerousness
Veteran status	Coworker trust & support		Secondary exposure: files, email, video, notifications
Tenure	Promotion potential		

The Federal Bureau of Prisons

The FBOP was created in reaction to a growing federal inmate population that was scattered across different state and local jails which provided no consistency in the management of that population (Roberts, 1997). The establishment of the FBOP specifically aimed to supervise federal inmates more efficiently by centralizing the administration, to

hire and train staff that specialized in corrections, and delegate the institutional oversight to management (Roberts, 1997).

History. In 1790, Congress enacted the first federal criminal statute (Keve, 1995). Prior to the passing of legislation and the creation of facilities designated strictly for federal inmates in 1891, the Judiciary Act of 1789 had allowed for federal inmates to be housed in local jails and state prisons through contracts (Roberts, 1997). The federal prison system was created when the Three Prisons Act of 1891 was passed and provided funding for the construction of three United States Penitentiaries (USP): USP Leavenworth, USP Atlanta, and USP McNeil Island (Bond, 2016; Roberts, 1997). In the early 1900's the federal inmate population began to significantly increase due to the federalization of "sinful" acts in the Harrison Narcotics Tax Act (1914), Mann Act (1910), Dyer Act (1919), and Volstead Act (1919). The new federal laws taxed opioid and coca products (Harrison Act), criminalized the transportation of women across state lines for prostitution purposes (Mann Act) and the transportation of stolen vehicles across state lines (Dyer Act), and the criminalization of alcohol (Volstead Act).

Due to the federal inmate population increase resulting from legislation that identified new federal crimes, Congress passed Public Law 71-218, 46 Stat. 325 (1930) which established the Federal Bureau of Prisons on May 14, 1930. The establishment of the FBOP also allowed for centralized oversight to ensure consistency of administration across the federal prisons institutions and implementation of the most current correctional philosophies such as the inmate classification system (Roberts, 1997). In an effort to continue providing inmates with improved conditions and opportunities, Congress established the Federal Prison Industries (UNICOR) in June of 1934.

The FBOP began with 14 institutions and just under 15,000 inmates in 1930 but, nearly doubled by 1940 with 24 institutions and approximately 25,000 inmates (“A Storied Past,” n.d.). Between 1940 and 1980, the FBOP did not expand and the inmate population remained stable between 17,000 to 25,000 inmates (Roberts, 1997). During this stable period, the FBOP implemented an inmate classification system, developed security levels, decentralized housing units, influenced the passing of legislation to treat juvenile delinquents, established work release programs, adopted a balanced model of corrections (i.e., punishment, deterrence, incapacitation, and rehabilitation), developed the first regional office in 1973, and established the National Institute of Corrections (NIC) in 1974 (“Timeline,” n.d.). The development of these systems and programs helped to centralize the agency, provide safer housing conditions for inmates, and, by proxy, safer working conditions for employees. While all correctional agencies experience high rates of burnout, it is the existence of these systems and programs that may reduce correctional burnout rates when compared to state correctional agencies.

The Comprehensive Crime Control Act of 1984 is largely responsible for the massive growth of the inmate population from 24,252 in 1980 to the current population of 189,333 (“Statistics,” n.d.). This Act, signed by President Ronald Reagan, created an array of new federal crimes, abolished parole, reinstated the federal death penalty, limited sentence reductions for good behavior, established mandatory minimums, and created sentencing guidelines (“A Storied Past,” n.d.; Roberts, 1997; Rowland, 2013). By 1990, the inmate population drastically increased to 65,347 and the number of FBOP institutions reached 66 (Rowland, 2013).

Today, the FBOP consists of 122 correctional institutions across the United States, six regional offices, one central office, two staff training facilities, 25 residential reentry management offices, and 12 private correctional institutions under contract with the FBOP ("About Our Facilities," n.d.). Institutional security levels range from the United States Penitentiary (USP) ADMAX in Florence, Colorado where the architectural design qualifies it as one of the most secure prisons in the United States (Sanchez & Field, 2015), to minimum security level facilities such as Federal Prison Camps (FPC) where there are no perimeter fences ("About Our Facilities," n.d.).

Organizational Structure. The original structure of the FBOP exhibits glimpses of classical organizational theories (scientific management theory, bureaucratic theory, administrative management theory) that began to emerge early in the 20th century. Frederick Taylor (1911) introduced the scientific management theory which posits that the primary objective of management should be to obtain the maximum prosperity for both the employer and the employee. Taylor's (1911) theory rests on four main principles: 1) find the most efficient method by which to complete a task 2) match employees to the task that best suits them 3) workers must be supervised and motivated through a system of rewards and punishments and 4) management is responsible for planning and control. Taylor's principles are still seen today in the FBOP as evidenced by leadership training programs that aim to identify line staff that are well suited for supervisory positions within the agency, monetary awards, and a tiered supervision structure that keeps the number of employees per supervisor at a manageable level.

Bureaucratic theory, developed by Max Weber (1964), is an expansion of scientific management and contains two main principles 1) there is a need for management to be

structured hierarchically and 2) there must be a clear delineation of power between the supervisors and supervisees. The hierarchical management structure still exists today in correctional settings and is exhibited by the para-military division of labor into smaller components: warden → associate warden's → department supervisor → line workers. The structure of bureaucracy was intended to ensure efficiency and effectiveness in the governing of large organizations (Weber, 1964). Similar to bureaucracy, the administrative management theory focuses on a formal administrative structure, division of labor, and delegation of authority to managers (Reiley & Mooney, 1947). The main purpose of administrative management is to provide a system by which to communicate and transfer information through middle management supervisors. Bureaucracy and administrative management are still seen in the pyramidal organization and informational flow in the FBOP, see Appendix A. The director and deputy director of the FBOP oversee eight divisions and six regional offices; each of which has a divisional or regional director. Each regional office oversees institutions in their geographic region; each of which is run by an administration consisting of wardens, associate wardens, and departmental supervisors ("About Our Agency," n.d.).

These theories worked well in the industrial period of the early 20th century. However, the problems with classical organizational theory became apparent quickly. The downside to these theories revolves around the depersonalization of the individual worker and the belief that employees are motivated solely by economic reward. For instance, FBOP employees may receive monetary awards for performance and special acts ("Life at the BOP," n.d.) but, current research indicates that work characteristics such as supervisor and coworker support are more effective in minimizing burnout than monetary awards alone

(Griffin et al., 2012; Lambert, Hogan, Cheeseman, & Jiang et al., 2012). While several principles derived from classical organizational theory continue to be used today (e.g. hierarchical structure, motivation incentives), the negative effects can be seen in a decrease in productivity, a lack of pride in ones work, and a reduction in organizational commitment (Weber, 1964). A solution to the rigid and organization-centered, rather than person-centered, classical organizational theory can be found in theories that recognized the value of individual employees and the influence of job environments on employee satisfaction and organizational commitment. While the FBOP still utilizes some of the aspects of classical organizational theory, the agency attempts to increase productivity, organizational commitment, and job satisfaction by implementing programs and benefits that invest in employee value (James, 2016). Furthermore, six of the ten aspects of the FBOP vision refer to the well-being of the employees (“Agency Pillars,” n.d.).

Training. In the infancy stage of correctional institutions, employee training consisted of providing a new officer with a uniform and a club, which were removed in 1938 (Keve, 1995). In contrast to the lack of training provided at the state level, FBOP implemented training programs in 1930, soon after the development of the federal system (Bosworth, 2002). An important step towards the advancement of staff training was success of W.T. Hammack in having all FBOP employees placed under the Federal Civil Service in 1937; this de-politicized the hiring process and allowed for improved hiring practices and training programs (Keve, 1995). By the end of the 1930’s there were six federal institutions providing regional training for officers. Those institutions expanded to specialty training (i.e., food services, facilities, and administrative) by 1940 and by 1949 El Reno offered an *Advanced Training for Experienced Employees* course (Keve, 1995).

Greater attention focused on correctional training with the establishment of the Law Enforcement Assistance Administration in the late 1960's, which funded prison programs and trainings, and the American Correctional Association issuance of correctional training standards in the late 1970's (Bosworth, 2005). In an effort to standardize training for all staff, the FBOP began using the law enforcement training center in Glynco, Georgia starting in 1982 (Keve, 1995). This training center is attended by all FBOP staff, not just officers, and provides training such as self-defense, firearms, interpersonal communication, and stress management (Bosworth, 2005).

In accordance with the American Correctional Association training standards, the FBOP provides a minimum of 120 hours of training in the first year and a minimum of 40 hours of training during each of the following years of employment (Bosworth, 2005). The FBOP initial job training consists of two phases of *Introduction to Correctional Techniques* that combine for a total of 200 hours of training ("Education Requirements," n.d.). Phase I takes place at the institution in which the individual will be working and consists of institutional familiarization, policies, procedures, and supervisory and communication techniques for dealing with inmates ("Our Hiring Process," n.d.). Phase II occurs at the Federal Law Enforcement Training Center (FLETC) in Glynco, Georgia. The second phase consists of firearms qualification, self-defense training, a physical abilities test, and a written exam ("Our Hiring Process," n.d.). Additionally, each employee serves a one year probationary period from the time of appointment. The probationary period allows the supervisor the opportunity to assess the qualifications of the employee and it provides an opportunity for the probationary staff member to determine their own suitability in the position and with the agency ("Our Hiring Process," n.d.).

Correctional Employees across the United States. The U.S. Bureau of Labor Statistics (2016) estimates that 422,596 individuals are employed as bailiffs, correctional officers, or jailers in the U.S. The average wage of a correctional officer is \$46,678 with a job growth rate of 3.8 percent, compared to the national average salary of \$48,539 and a job growth rate of 6.5 percent (U.S. Bureau of Labor Statistics, 2016). According to the Census Bureau (2011) data, the highest paying states for correctional workers are New Jersey, California, and Rhode Island.

The demographics of correctional workers in the U.S. indicate a predominantly White male dominated workforce where males earn an average of \$7,500 more per year than their female counterparts (“Bailiffs, Correctional Officers,” n.d.). According to the Census Bureau (2011), the average age of correctional workers is 40 years old and the majority of the racial composition is White (70%); followed by African American (24%), Asian (1%), and Other (3%). Many state correctional agencies only require a high school diploma or GED for new recruits, however, the FBOP requires a minimum of a four year college degree for correctional officers and higher levels of education for specialized positions (“Correctional Officer,” n.d.).

FBOP Employees. The Federal Bureau of Prisons employs 40,058 individuals to carry out the mission of protecting society by safely housing and rehabilitating offenders in a safe, secure, humane, and cost-effective environment (“About Our Agency, “ n.d.). The majority of employees (67%) are White, with an additional 22 percent African American, 12 percent Hispanic, two percent Asian, and one percent Native American (BOP, 2017). According to the most recent Bureau of Prisons gender statistics (“Staff Statistics,” n.d.) males account for 73 percent of employees. Staff members are between the ages of 21

(minimum hiring age) and 57 (mandatory retirement age) years old. As law enforcement officers, FBOP employees are eligible to retire after 20 years of service if they have reached the age of 50; otherwise they may retire after 25 years of service or at any time after the age of 50 with at least 20 years of service. Additionally, the maximum age of entry into the FBOP is 36 years of age. This age restriction is in place due to the mandatory retirement age of 57 years old and the minimum requirement of 20 years of service (“Life at the BOP,” n.d.).

At the federal level, all employees are considered law enforcement and are responsible for performing the fundamental tasks of correctional workers. Position descriptions, regardless of the job title, for the FBOP all state that the employee is responsible for institutional security and that correctional duties take precedent over all other duties (“Clinical Nurse,” n.d.). The FBOP has a variety of professional employment positions in addition to the typical custody positions of correctional officer. The non-custody employees include lawyers, doctors, teachers, psychologists, counselors, information technology specialists, food service supervisors, secretaries, counselors, chaplains, case managers, social workers, safety compliance specialists, and trade specific positions such as carpenters, electricians, plumbers, HVAC mechanics, and automotive mechanics (“Find Your Fit,” n.d.).

Individuals seeking employment with the FBOP must complete an application on USAJOBS.gov. If identified as a qualified applicant, the individual will undergo a panel interview prior to selection for the position. If selected, the candidate will go through an extensive background check that includes criminal records, credit records, personal references, and information from previous employers, in addition to age verification,

citizenship verification, drug testing, and medical and physical examinations (“Our Hiring Process,” n.d.).

With the majority of financial expenditures in corrections directed towards employees (Lambert & Barton-Bellessa et al., 2015), correctional employees are considered valuable resources that must be invested in and properly trained in order for correctional agencies to minimize turnover. The Federal Bureau of Prisons has heavily invested in training, education, and benefit programs in an effort to develop and retain agency employees (“Employee Resources,” n.d.).

Benefits and employee development. FBOP employees receive benefits such as competitive pay, additional compensation for overtime, night shifts, and Sunday work, a commuter subsidy of up to \$230 for those utilizing public transportation, and performance based monetary awards (“Employee Resources,” n.d.).

A competitive salary and compensatory financial incentives are important in reducing burnout and negative job outcomes such as employee turnover. Keinan and Malach-Pines (2007) studied a sample of 496 Israeli correctional employees and found that two of the three most stressful factors were a low salary and having to work overtime without additional compensation. In a review of 43 studies on correctional officer stress and burnout, Schaufeli and Peeters (2000) found that low pay, poor upward mobility, and a lack of additional benefits contributed to job stress. While low pay has a significant negative relationship with job stress, Warr (1987) found that employees were more concerned with the fairness of pay rather than the pay itself.

The FBOP salary pay scale is updated and issued by the Office of Personnel Management (OPM) annually. It is broken down into a grid system consisting of grades (1-

15) and steps within each grade (1-10), see Appendix B. Each employee is hired at a specific grade which is listed in the job position announcement (ex. GS-5) and may then receive step increases within that grade based on experience, performance, and time in grade (“Salary Table,” n.d.). Positions that list a range of grades are typically filled at the lower grade and the employee will receive grade increases annually until the highest grade in that position announcement is reached. For instance, a current position announcement on Usajobs.gov (“Clinical Nurse,” n.d.) for a registered nurse is posted as grade 4/10 which means an individual with basic qualifications may be hired at a grade four and will receive a one grade increase annually until they reach grade 10. Correctional officers, one of the most common positions within the FBOP, are typically grades five through seven with a salary range in New York of \$37, 457 (grade 5, step 1) to \$60,322 (grade 7, step 10) (“Salary Table,” n.d.), see Appendix B.

The General Schedule (GS) pay tables are categorized by location within the United States. Aside from specified high cost of living cities that receive higher percentages of salary increases based on the location, there is a GS base scale table listed for those areas of the U.S. that receive a standard 15 percent salary cost of living increase. However, employees in most major cities receive a locality pay increase that exceeds the base increase of 15.06 percent and can reach as high as 38.17 percent in San Francisco, California (“Salary Table,” n.d.).

Employees may choose from a variety of health, dental, vision, life insurance plans, and flexible spending accounts for health care expenses that suit their individual needs. To reduce out of pocket expenses for employees, the government pays between 60 and 72 percent of the cost of health insurance premiums and approximately 33 percent of life

insurance plan premiums (“Employee Resources,” n.d.). All FBOP employees receive an annual allotment of 15 vacation days (increases to 20 days after 3 years of service and 26 days after 15 years), 13 sick days, 10 paid federal holidays, and they may receive additional days (i.e., one day to five days) off in the form of an award for an outstanding performance (“Employee Resources,” n.d.). Lastly, the Thrift Savings Plan (TSP), an investment tool for retirement, allows employees to contribute pre-tax portions of their salary and invest in a variety of financial investment options with the FBOP matching employee contributions up to five percent (“Employee Resources,” n.d.). In comparison, after five and a half years New York City Department of Correction (NYCDOC) employees receive a minimum total salary of \$94,321, unlimited paid sick days, 27 paid vacation days, 11 paid holidays, and the option of choosing from several health insurance programs that are at no cost to the employee (“Salary Benefits,” n.d.). However, NYCDOC provides a higher salary and better benefits than most state correctional systems. For instance, Arizona correctional officers with eight years of tenure only make \$39,664 with 12 vacation days, 12 sick days, and 10 paid holidays per year (“CO Benefits, n.d.).

The Federal Bureau of Prisons has developed and implemented many programs and training initiatives intended to assist employees in both their personal and professional lives. Three programs to assist employees in their personal lives are the Co-Worker Emergency Fund, the Voluntary Leave Transfer Program, and the Employee Assistance Program. The Co-Worker Emergency Fund allows employees to financially assist colleagues who are experiencing tragedies that have significantly impacted them financially (“Employee Resources,” n.d.). The Voluntary Leave Transfer Program allows employees to donate their vacation time to a colleague who is in need due to a serious medical condition

("Employee Resources," n.d.). The Employee Assistance Program (EAP) provides employees and their dependents an anonymous and independent manner through which they may seek assistance from a licensed counselor for up to six sessions per year for each problem ("Employee Resources," n.d.). Problems that the EAP can assist with include financial difficulties, legal issues, relationship or interpersonal problems, stress, substance use, and other issues impacting job performance (Brower, 2013; "Employee Resources," n.d.). Additionally, EAP services are provided to employees and their dependents at no cost.

In addition to the programs for personal assistance, the FBOP has a wide array of professional development programs. The FBOP recognizes the importance of physical health and recognizes the positive impact on staff retention, minimizing absenteeism, and improving staff productivity; therefore, the agency implemented a fitness center policy in 1993 that provides employees with the opportunity to maintain their physical well-being ("Employee Resources," n.d.). In 2011, the FBOP established the position of Equal Employment Opportunity (EEO) counselors to assist staff in resolving discrimination and retaliation complaints and an Ombudsman to provide a confidential and neutral avenue for employees to resolve work-related problems ("Employee Resources," n.d.). There are several employee development and training programs, such as the staff mentoring program developed in 2002 that help employees advance their skills and potentially qualify for additional opportunities and promotions within the agency ("Employee Resources," n.d.).

Job Outcomes

Job Satisfaction. Job satisfaction is typically defined as an affective response to the totality of positive and negative emotions that one feels in association with the level of enjoyment one receives from their work, or how much they like or dislike their job

(Lambert, Barton, & Hogan, 1999; Locke, 1976; Spector, 1996; Weiss, 2002). Few recent studies focus on the effects of personal characteristics and work characteristics on job satisfaction in the field of correctional work (Armstrong et al., 2015; Hsu, 2011; Lambert & Kim et al., 2015). The majority of job satisfaction research focuses solely on the relationship between specific work and personal characteristics as they relate to job satisfaction and do not explore the relationship between burnout and job satisfaction. Only two published articles studying the relationship between correctional burnout and job satisfaction could be found and both studies were conducted by the same researcher while using the same dataset from three state correctional facilities in Indiana (Avdija & Sudipto, 2013; Roy & Avdija, 2012). Therefore, it is important to further study not only the relationship between work characteristics, personal characteristics, and job satisfaction, but to also expand the research on the relationship between the three dimensions of occupational burnout and job satisfaction.

The purpose of continued job satisfaction research is that job satisfaction is linked to positive work behaviors such as organizational citizenship behaviors, (Lambert, Barton-Bellessa, & Hogan, 2014) support for rehabilitation (Kerce, Magnusson, & Rudolph, 1994), increases in work performance (Lambert, Hogan, & Barton, 2002), and reduced turnover (Leip & Stinchcomb, 2013). Negative behaviors associated with job dissatisfaction include turnover (Leip & Stinchcomb, 2013), absenteeism and poor interpersonal relationships at work (Hulin, Roznowski, & Hachiya, 1985), poor performance (Cornelius, 1994) and psychological withdrawal from work (Lambert & Hogan et al., 2002). The implications are that correctional administrators can use this research to develop effective interventions that are likely to increase job satisfaction among employees.

Lambert et al., (2002) explain that job satisfaction research follows either a faceted or global approach. Both approaches view job satisfaction as a multidimensional concept, however, the faceted approach measures job satisfaction by focusing on specific questions regarding satisfaction with pay, benefits, work performance, promotion potential, supervision, and professional interpersonal relationships. The global approach discards specific questions for broader questions that allow the individual participant to determine the aspects of job satisfaction that they consider most relevant. The faceted approach allows researchers to isolate problem areas, however, proponents of the global approach argue that the faceted scales may not include all relevant measures of job satisfaction and may thereby result in biased results (Lambert & Hogan et al., 2002). Therefore, most correctional job satisfaction studies have used a global approach when measuring job satisfaction.

There is consensus among prior studies that personal characteristics such as age, gender, tenure, and race have little to no significance in relation to job satisfaction (Castle, 2008; Lambert & Hogan et al., 2002; Lambert, Kim, Keena, & Chesseman, 2015; Leip & Stinchcomb, 2013; Paoline, Lambert, & Hogan, 2015). The only personal characteristic shown to have a significant negative relationship with job satisfaction is education level, whereby increased education results in decreased job satisfaction (Lambert & Hogan et al., 2002). While personal characteristics are not the focus of the current study, they will be statistically analyzed to determine if there any significant relationship to burnout or job outcomes.

Work characteristics have consistently been proven to have a significant relationship with job satisfaction. Work characteristics include supervisory support,

administrative support, co-worker support, role conflict, decision authority, role clarity, procedural fairness, job stress, promotion potential, security level, and financial incentives. Prior research found negative relationships between several work characteristics and job satisfaction; job stress (Grossi, Keil, & Vito, 1996; Robinson, Porporino, & Simourd, 1997), role conflict and role ambiguity (Hepburn & Albonetti, 1980), perceived dangerousness of the job (Cheeseman, Kim, Lambert, & Hogan, 2011), and a lack of decision authority (Leip & Stinchcomb, 2013; Whitehead & Lindquist, 1986). Other work characteristics have positive relationships with job satisfaction; financial incentives (Hepburn & Knepper, 1993), supervisory support (Armstrong, Atkin-Plunk, & Wells, 2015; Castle, 2008; Hsu, 2011; Lambert & Kim et al., 2015; Lambert & Minor et al., 2015), administrative and co-worker support (Lambert & Minor et al., 2015; Stinchcomb & Leip, 2013). While perceived dangerousness negatively relates to job satisfaction, Roy and Avdija (2012) found no significant relationship between the actual security levels of institutions and employee job satisfaction.

Avdija and Roy (2013) conducted one of the few studies that used a dimension of burnout (emotional exhaustion) as a predictor for job satisfaction. They stated that since emotional exhaustion is an independent construct, it may be used as a predictor variable or outcome variable. Based on their results, emotional exhaustion was shown to have a negative relationship with job satisfaction, however, additional studies testing the relationship between these two constructs is needed (Avdija & Roy, 2013). Therefore, the current research study tests the relationship between the dimensions of burnout and job satisfaction.

The purpose of further job satisfaction research is to identify specific factors related to job satisfaction so that correctional administrators may develop targeted interventions to remedy low levels of satisfaction. Paoline et al. (2015) indicate that providing staff with more job variety and input into the decision making process may be effective in increasing job satisfaction. As much of the current research indicates a strong positive correlation between supervisory support and job satisfaction, Cheeseman et al. (2012) suggest that administrators may improve job satisfaction by providing meaningful feedback, positive praise, and constructive criticism.

Organizational Commitment. In the field of correctional work, it is important for employees to feel a sense of engagement in their work. With personnel accounting for approximately 75 percent of budget expenditures (Camp & Lambert, 2005), correctional organizations could reduce expenditures by increasing employee commitment to the organization and reduce the turnover rates that result in expenses to replace those who leave and thereby promoting additional prosocial work behaviors such as organizational citizenship behaviors (Lambert & Hogan, 2013; Lambert, Hogan, & Griffin, 2007, 2008).

Organizational commitment refers to the employee feeling a psychological attachment, a sense of loyalty towards the agency, and the employees' embodiment of the organizational mission and values (Allen & Meyer, 1990; Morrow & McElroy, 1986). Mowday, Porter, and Steers (1982) describe three forms (continuance, affective, and normative) of organizational commitment that rest on a continuum. Continuance commitment represents one end while affective commitment represents the opposite end and normative commitment falls between the continuance and affective ends of the continuum but, more towards the affective end (Allen & Meyer, 1990).

Allen and Meyer (1990) specify continuance commitment as an evaluation by the employee of their investment in the organization. The investments include salary, health care benefits, retirement pension, and skills. An employee experiences continuance commitment when they determine that they will remain with the organization because the loss of their investments would be too great to justify leaving the organization (Garland, Lambert, Hogan, Kim, & Kelley, 2014; Hogan, Lambert, & Griffin, 2013; Lambert, Griffin, Hogan, & Kelley, 2014; Lambert, Kelley, & Hogan, 2013). Garland et al. (2014) note that employees who experience increases in continuance commitment rather than affective commitment may also be more susceptible to burnout since they are remaining with the organization to avoid loss rather than staying due to an ideological congruence with the organizational values.

Normative commitment is defined by Weiner (1982) as an internalized pressure to comply with behavioral expectations. Allen & Meyer (1990) add that normative commitment refers to a moral obligation as an employee to take on the duties of the agency and properly represent the organization; similar to that of military personnel (Lambert, Hogan, & Jiang, 2008). Most organizational commitment research studies exclude normative commitment and focus instead on the other two dimensions of commitment (continuance and affective). However, Lambert and Hogan (2011) and Lambert and Griffin et al. (2014) found that decision authority and organizational fairness were significant predictors of normative commitment.

Affective commitment is attitudinal in nature and refers to a positive psychological or emotional connection of the employee to the organization (Allen & Meyer, 1990; Mowday et al., 1982). It can be observed as a sense of pride in, and belonging to, the

employing organization (Mowday et al., 1982). The development of affective commitment is a conscious choice of the employee based on the employees' desire to remain with the organization (Hogan et al., 2013; Lambert & Griffin et al., 2015; Lambert & Kelley et al., 2013). Garland et al. (2014) posit that employees who experience increased levels of affective commitment will often tolerate greater work demands due to their belief in the larger goals and mission of the organization.

Job involvement and job stress and their relationship to organizational commitment are commonly studied. Job involvement is different from organizational commitment in that it refers to employees' psychological attachment to, and identification with, a specific job rather than the organization itself (Brown & Leigh, 1996). Job stress results from the buildup of job demands placed on employees (Lambert, Hogan, Cheeseman, & Barton-Bellessa, 2013). Lambert, Hogan, and Cheeseman et al. (2013) found that job stress, specifically the variables of role conflict and dangerousness, has a negative effect on job involvement. Additionally, job involvement and job stress are significantly related to organizational commitment in that high rates of job involvement positively relate to affective commitment and negatively relate to continuance commitment while higher rates of job stress positively relate to continuance commitment (Hogan et al., 2013; Lambert, Hogan, & Cheeseman Dial, 2011; Lambert, Hogan, & Cheeseman et al., 2013; Lambert, Hogan, & Keena, 2015). Further studies have found positive relationships between organizational commitment and increased rates of organizational citizenship behaviors and support for rehabilitation (Lambert, & Barton-Bellessa et al., 2014), life satisfaction (Lambert, Kim, Kelley, & Hogan, 2013), organizational support (Lambert, Minor, Wells, &

Hogan, 2015), organizational justice (Taxman & Gordon, 2009), supervisory status (Vickovic & Griffin, 2014), and job satisfaction (Lambert, 2004).

While the research on the relationships between work characteristics and organizational commitment is expanding, there is very little research exploring the relationship between the three dimensions of occupational burnout (emotional exhaustion, depersonalization, and decreased sense of personal accomplishment) in corrections and organizational commitment.

Only two published studies directly testing the relationship between occupational burnout and organizational commitment in correctional environments were found, which emphasizes the need for the current study. The first published study focused solely on the burnout dimension of emotional exhaustion with a sample from a state correctional facility (Lambert, Kelley, & Hogan, 2013), while the second study assessed all three dimensions of burnout in relation to organizational commitment with a sample from a private correctional facility (Garland et al., 2014). Lambert and Kelley et al. (2013) found that emotional exhaustion has a negative relationship with affective commitment and a positive relationship with continuance commitment; there was no significant relationship with normative commitment. Garland et al. (2014) found that all three dimensions had a negative relationship with affective commitment and a positive relationship with continuance commitment. The difficulties with these studies are that Garland et al. (2014) used questions adapted from the MBI in the PSCS rather than the MBI itself which makes it difficult to compare the result to studies using the actual MBI. The major limitations associated with the Lambert and Kelley et al. (2013) study are that it only focuses on one

dimension of burnout, emotional exhaustion and the study is conducted at a single prison location.

Turnover. The generally accepted definition of turnover is the separation of an employee from their employing agency, which includes voluntary and involuntary separation (Minor, Dawson-Edwards, Wells, Griffith, & Angel, 2009). Involuntary turnover refers to situations in which the employee does not choose to separate from the agency, such as cases of termination, mandatory retirement, medical retirement, and death (Minor et al, 2009; Wilson, Dalton, Scheer, & Grammich, 2010). Voluntary turnover refers to the decision of an employee to separate from the agency (Minor et al., 2009) and it accounts for more than 60 percent of all correctional turnover (Griffin, Hogan, & Lambert, 2013). Research that examines correctional turnover typically focuses on voluntary turnover and often measures turnover intent, which is a significant predictor of voluntary turnover (Lambert & Hogan, 2009).

Turnover intention refers to an employee who wishes to separate and plans to separate from the employing agency (Lambert, 2001). Research on turnover identifies turnover intent as the most significant predictor of voluntary turnover and it immediately precedes the actual act of separation from an employer (Lambert & Hogan, 2009). It is important to study turnover intention because it allows correctional administrators to identify issues that precipitate turnover and develop strategies to address the issues thereby minimizing turnover (Wilson et al., 2010). By reducing turnover, correctional administrators can also minimize the financial burden it imposes through direct and indirect costs associated with turnover (Wilson et al., 2010).

Turnover is a widespread problem in the field of correctional work. High rates of employee turnover have significant financial implications for correctional administrators and negative effects on the moral of personnel still employed by the agency. Rates of correctional turnover typically range between 12-25 percent (Lambert, 2001), however, Tewksbury and Higgins (2006) suggest that over 50 percent of correctional employees will separate from their agency within 13 months of their start date and Finney et al. (2013) estimates that 37 percent of correctional workers experience occupational burnout. Some specific correctional facilities experience significantly higher turnover rates such as 77 percent of part-time officers in Vermont separating after a year of service (Ferdik, Smith, & Applegate, 2014). The high turnover rates in corrections are often attributed to the excessively stressful environment (Schaufeli & Peters, 2000). Kovner, Brewer, Fatehi, and Jun (2014) explain the variation in turnover rates as a lack of consistency in the definition and measurement of turnover.

Wilson et al., (2010) estimates a cost of \$58,000 per new hire and Minor et al., (2011) estimates that correctional organizations spend \$31,000 per separated employee. The financial estimates are considered direct costs, which can include expenses related to recruitment, background investigations, credit checks, physical and mental assessments, and specialized training (Griffin et al., 2013; Lambert, 2001; Wilson et al., 2010). Indirect costs are more difficult to measure as they are related to overtime costs to fill posts created by turnover and the time and effort of administrators to recruit, hire, and train new employees (Griffin et al., 2013; Lambert, Hogan, & Cheeseman-Dial, 2011). In addition to the financial impact, turnover may also result in a reduction of inmate programs, increased safety concerns, and decreased staff morale (Griffin et al., 2013; Lambert & Barton-Bellessa

et al., 2015). Furthermore, Lambert and Barton-Bellessa et al. (2015) found a significant positive relationship between emotional burnout and turnover intent. Therefore, the organizational and operational stressors caused by high turnover rates may positively relate to the development of emotional exhaustion in staff that remain with the agency and thereby creating a circular process of turnover. However, further studies examining this relationship are necessary since most research concentrates on how specific stressors relate to turnover.

Prior research on turnover and turnover intent in correctional staff has tested the relationship between personal characteristics, work characteristics, and turnover. The findings on the relationship between personal characteristics and turnover are inconsistent (Griffin et al., 2013), however, workplace characteristics appear to have significant relationships with turnover and turnover intention. For example, job satisfaction (Lambert & Paoline, 2010), organizational commitment (Garland, Hogan, Kelley, Kim, & Lambert, 2013; Griffin et al., 2013; Lambert & Griffin et al., 2014; Lambert & Hogan, 2009), supervisory support (Minor et al., 2009), and supervisory status (Garland et al., 2014) have a negative relationship with turnover. The perception of dangerousness and higher levels of education have a positive relationship with turnover (Griffin et al., 2013).

While additional research on the predictors is still necessary, it is also important to examine the relationship between the three dimensions of burnout and turnover, since very little research focuses on this relationship. Further research will likely show similar relationships between the work characteristics which predict burnout and those that predict turnover. The purpose of further examining relationships between burnout and turnover is to provide information which allows correctional administrators to develop

and implement strategies to reduce the risk of both. Based on existing research, Wilson et al. (2010) make several recommendations that correctional administrators can follow such as assess employee needs, implement pre-hire screening tools, increase compensation, supplement financial compensation with additional benefits, improve training opportunities, provide employee performance feedback, acknowledge employee efforts, select and retain quality supervisors who are fair and transparent, and increase employee decision authority.

Theoretical Framework

The theoretical framework for this study primarily relies on the Job Demands-Resource model (JD-R) (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) and the conservation of resources theory (Hobfoll, 1989) as a supplemental conceptual framework. Due to the lack of theoretical explanation in the JD-R regarding the selection and use of particular variables in the model, the Conservation of Resources (COR) theory by Hobfoll (1989) is used to support the application of the JD-R and the selection of specific variables for the current study.

Job Demands – Resource Theory and Model. The JD-R model is the most appropriate theory/model to assess the relationship between work characteristics and the three dimensions of correctional burnout in the current study as it allows for the assessment of both demands and resources related to the development of burnout. The JD-R model is an adaptation from the Job Demand–Control model (JD-C), also known as the Job Strain model, which posits that high job demands and low decision making authority result in psychological job strain (Demerouti et al., 2001; Dollard & Winefield, 1998; Karasek, 1979; Lambert, Hogan, Cheeseman, Altheimer, & Barton-Bellessa, 2012; Roy & Avdija,

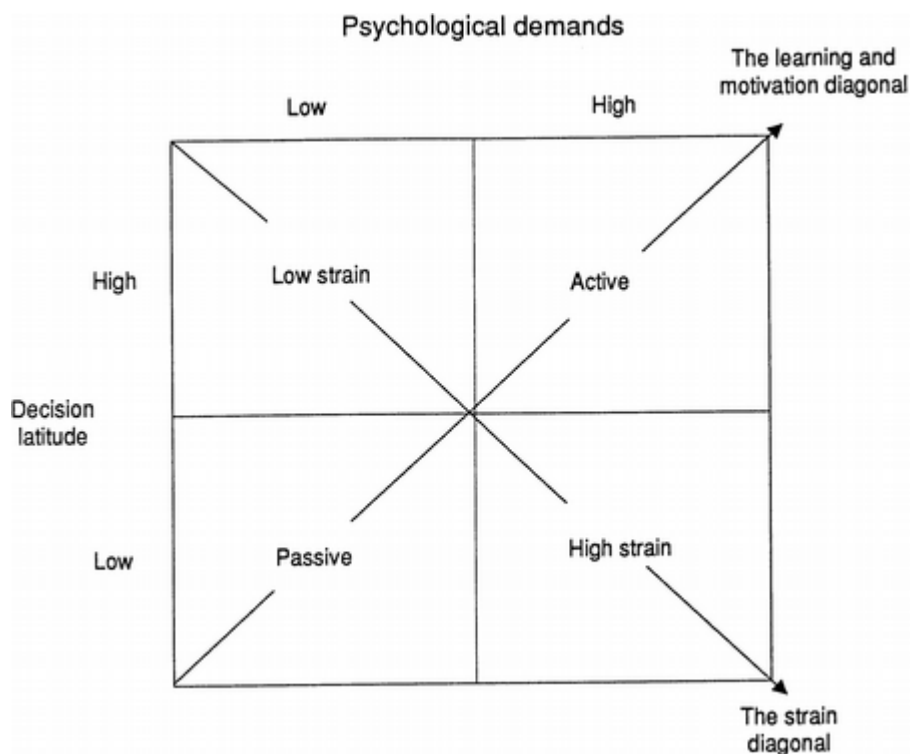
2012; Steiner & Wooldredge, 2015; Stinchcomb & Leip, 2013;). Prior to the development of the JD-C, literature had focused on either job demands (Caplan, Cobb, French, Van Harrison, & Pineau, 1976) or decision latitude (Kornhauser, 1965) and the two concepts were rarely if ever discussed as interrelated (Karasek, 1979). The Job Demand-Control model had previously been the standard model to implement when assessing burnout in corrections due to its ability to account for job stressors and decision latitude in the same model. Dollard and Winefield (1998) used the JD-C to test strain among correctional officers and found evidence to suggest that job characteristics vary extensively both within and across jobs.

Originally developed by Karasek (1979) the Job Demand-Control model asserts that high demand jobs in combination with low decision latitude result in higher levels of psychological strain and physical illnesses, see Figure 1. However, high demand jobs with high decision latitude result in active learning, high levels of engagement, and positive motivation (de Jonge & Kompier, 1979; Dollard & Winefield, 1998; Karasek, 1979; Schaufeli & Bakker, 2004). Whereas, psychologically demanding jobs with low decision authority will result in high levels of strain.

The concept of demands from the Karasek (1979) model carries over to the Job Demands-Resources Model; the JD-R simply allows for additional resources beyond decision latitude. The expansion of resources allows for the application of the model to a variety of job positions that the Job Demands-Control Model is not capable of accounting for (Bakker & Demerouti, 2007). The flexibility of the JD-R model to incorporate any type of demand and resource rather than a specific predetermined set allows for the application to

different types of jobs and thus explains the popularity of this model (Schaufeli & Taris, 2014).

Figure 1. Karasek's Job Strain Model



De Jonge and Kompier (1997) critique the JD-C for its simplicity, concept and operationalization of job characteristics, and presupposed interactive effects. The development of the JD-R addresses many of the critiques of the JD-C by clearly defining job demands, incorporating job resources, including work engagement, and by allowing for the inclusion of personal resources. Rather than assessing only the decision authority of the individual employee, as the Job Demand–Control model asserts, the Job Demands-Resources model expands on the original model by accounting for different types of resources such as physical, psychological, and social aspects (Demerouti et al., 2001; Schaufeli & Bakker, 2004; Schaufeli & Taris, 2014). Furthermore, the JD-R model explains

the interactions between job demands and job resources as a trajectory towards burnout, or the reverse causal effect leading to more engaged and knowledgeable employees with higher levels of efficiency (Bakker & Demerouti, 2014). While the original version of the JD-R allows for consideration of positive and negative effects of demands and resources, Schaufeli and Bakker (2004) revised the model to include work engagement in addition to burnout. The presumption of the revised JD-R is that burnout is a mediator in the relationship between job demands and health problems while work engagement is a mediator between job resources and turnover intention (Schaufeli & Bakker, 2004; Schaufeli & Taris, 2014).

JD-R model structure. There are three main propositions of the JD-R. First, there is flexibility within the model by organizing job characteristics into one of two general categories: demands and resources. Second, the model relies on a dual process: health impairment (job strain) and motivation. Third, there is an interaction effect between demands and resources that can either buffer the impact of demands on health impairment, or amplify the impact of resources on motivation.

Flexibility allows the application of the JD-R to a variety of occupations by allowing job stress related factors to be categorized into one of two general categories: job demands and job resources (Bakker & Demerouti, 2007, 2014; Demerouti et al., 2001). Job demands refer to the effort and skill requirements of employees in order to deal with the physical, psychological, social, and organizational demands of the job on a daily basis (Bakker & Demerouti, 2007, 2014). Some job related demands include role clarity, opportunities for advancement, organizational fairness, proper training, availability of physical tools, decision authority, work schedule, and mandatory overtime (Bakker & Demerouti, 2007,

2014; Demerouti et al., 2001; Denhof, Spinaris, & Morton, 2014; Finney, Stergiopoulos, Hensel, Bonato, & Dewa, 2013; Griffin, Hogan, & Lambert, 2012). The definitions and categories of job demands are discussed at length in the section of this paper related to burnout and the specific types of stressors.

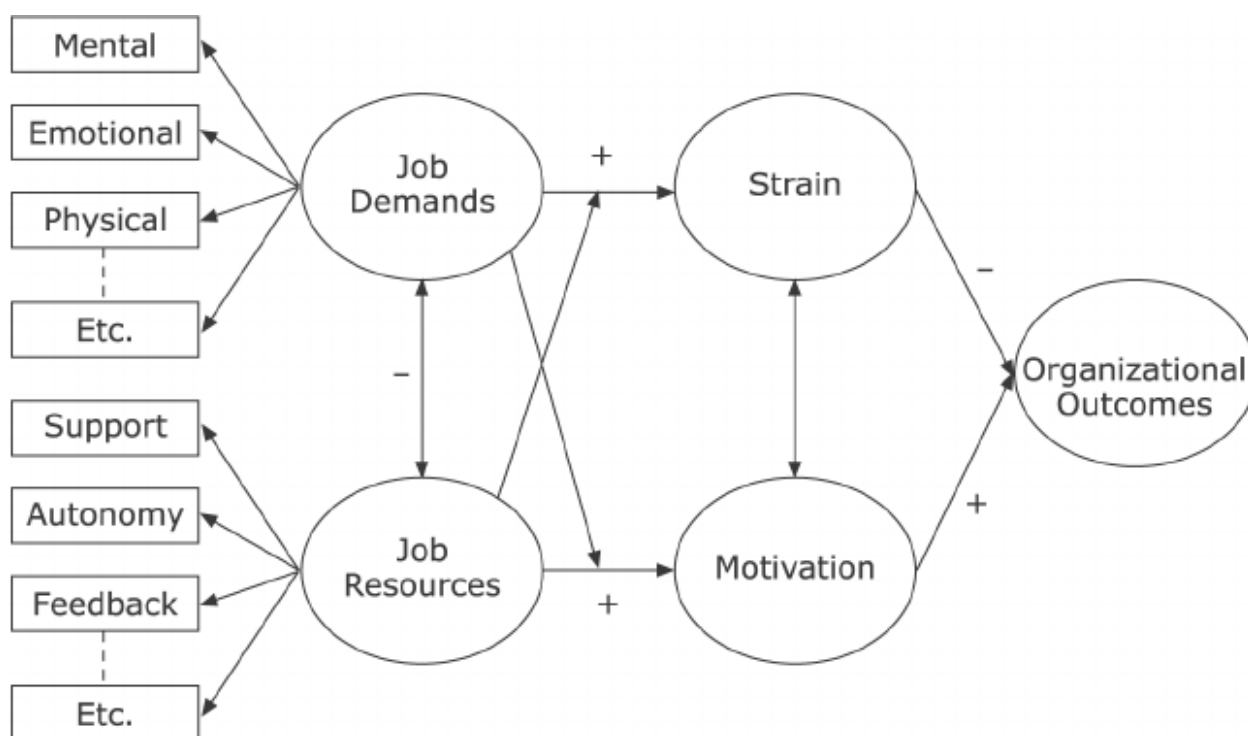
Job resources may be found on a variety of levels that include the organization, the individual, the work, and the task (Bakker & Demerouti, 2007). Similar to job demands, job resources relate to the physical, psychological, organizational, and social aspects of the job that allow employees to accomplish work goals, reduce the impact of job demands, and induce active learning, higher levels of engagement, personal development, and motivation (Bakker & Demerouti, 2007, 2014; Demerouti et al., 2001). One of the advantages of the JD-R is that no single model exists and researchers may incorporate any job resource, or demand, that is relevant to the study (Schaufeli & Taris, 2014).

The JD-R is based on a dual process(see Figure 2) by which job strain, also referred to as the health impairment process, and motivation are advanced through underlying psychological processes that operate simultaneously and independently of each other (Bakker & Demerouti, 2007, 2014). The health impairment process refers to the use of job demands as predictors for health related outcomes such as frequent injuries, exhaustion, and psychosomatic symptoms that may lead to such results as more frequent absenteeism (Bakker & Demerouti, 2007, 2014; Bakker, Demerouti, & Verbeke, 2004; Demerouti et al., 2001). The second process of motivation posits that job resources have the ability to increase work engagement and performance efficiency while also decreasing depersonalization, also referred to as cynicism (Bakker & Demerouti, 2007, 2014).

Depersonalization is instrumental to the assessment of burnout and was discussed in detail

in the section of this paper related to burnout. Based on the definition of job resources, Bakker and Demerouti (2007) note that resources may play both intrinsic and extrinsic roles by stimulating personal growth and development while also playing a key role in accomplishing prescribed work goals such as increased efficiency and better performance.

Figure 2. Job Demands-Resources Model

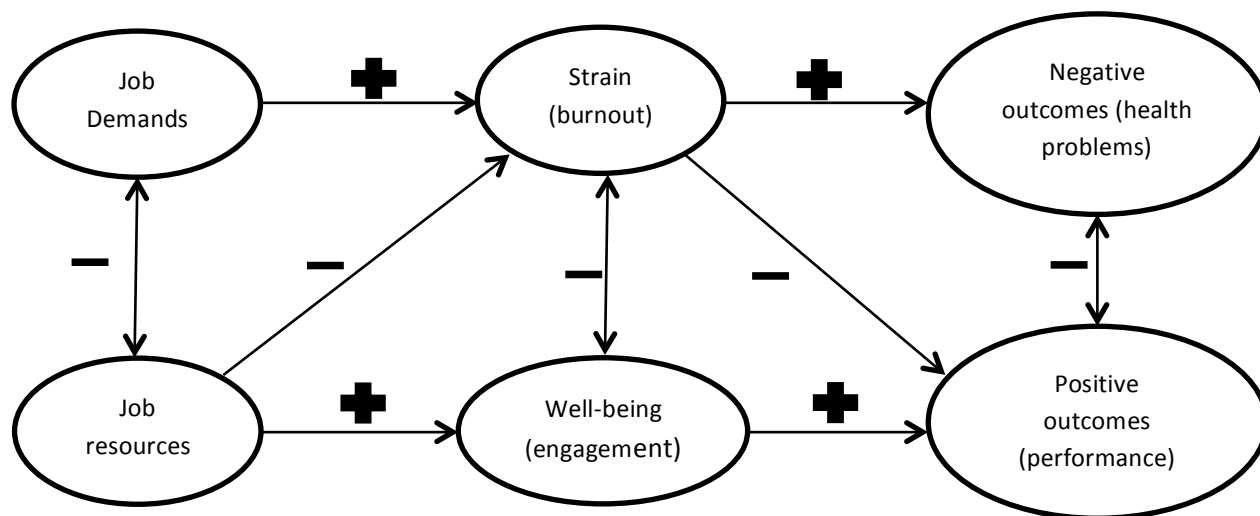


The third proposition of the JD-R relates to the interaction effects between job demands and job resources. Bakker and Demerouti (2007, 2014) note that job resources buffer the impact of demands on the health impairment process thereby reducing strain. They also note that when job demands are high, the positive effects of resources are higher and will thereby increase motivation and engagement (Bakker and Demerouti, 2007, 2014). The interaction of high demands and high resources leading to motivation and

engagement is similar to Karasek's (1979) Job Strain model, whereby high psychological demands and high decision latitude result in active employees who engage in active learning and have higher levels of motivation. Schaufeli and Taris' (2014) list of job demands, job resources, personal resources, negative outcomes, and positive outcomes can be found in Appendix C.

Schaufeli and Bakker (2004) revised the JD-R to incorporate work engagement with the assumption that work engagement serves as a mediator between job resources and turnover intention (see Figure 3). One of the main purposes of the current study is to assess turnover intent as an outcome of burnout. Therefore, the revised JD-R model's inclusion of work engagement is crucial.

Figure 3. The revised Job Demands-Resources model



An additional benefit of the JD-R model over the job demand control model is that the JD-R allows for the inclusion of personal resources. Personal resources are attitudes and beliefs that an individual may hold regarding their ability to control and impact their

own environment (Bakker & Demerouti, 2007, 2014). Examples of personal resources include resiliency (Bakker & Demerouti, 2014), a generally optimistic outlook, social support (Hobfoll, 1989), and self-esteem (Airila et al., 2014). There has not been a great deal of research regarding the impact of personal resources. However, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007, 2009) found evidence to support the fact that job resources may foster the development of personal resources and that there is a reciprocal relationship between job resources, personal resources, and work engagement. A more recent study by Airila et al. (2014) concluded a 10 year longitudinal study that examined the interaction between job resources, personal resources, and engagement. The results indicate that there may be long-term effects of personal resources on engagement and work ability (Airila et al., 2014), which both relate to burnout.

Application of the JD-R in research. The assumptions of the JD-R model have been tested and retested by researchers in several different settings and the results of these studies provide evidence that strongly supports the assumptions of the JD-R (Schaufeli & Taris, 2014). The JD-R has been used in studies in different countries such as the Netherlands, Finland, Australia, Austrian, Belgium, and China as well as different occupations such as industrial, health care, education, and volunteers (e.g., Bakker, Demerouti, & Schaufeli, 2003; Bakker, Demerouti, de Boer, & Schaufeli, 2003; Bakker, A.B., Jakanen, J.J., Demerouti, E., Xanthopoulou, D., 2007; Hakanen, Bakker, & Schaufeli, 2006; Hansez & Chmiel, 2010; Hu, Schaufeli, & Taris, 2011; Korunka, Kubicek, Schaufeli, & Hoonakker, 2009; Lewig, Xanthopoulou, Bakker, Dollard, & Metzger, 2007). While the previous studies have been cross sectional, they support the assumptions of the JD-R across multiple occupations and cultural groups by indicating that there was either partial or full

mediation for burnout or engagement (Schaufeli & Taris, 2014). Furthermore, the few longitudinal studies that have used the JD-R have found no reversed causality (e.g., Boyd et al., 2011; Hakanen et al., 2008; Schaufeli, Bakker, & van Rhenen, 2009)

Limitations of the JD-R. Schaufeli and Taris (2014) discuss a few critical issues with the JD-R model: generalizability, job demand and job resource definitions, integration of personal resources, and reciprocal causation. While the JD-R provides flexibility for researchers to determine which job demands and job resources to include in their model, this also limits the ability to generalize the findings since relationships may not exist between the demands and resources included in one particular model versus another. Next, Schaufeli and Taris (2014) argue that the definition of job demands and job resources require a redefinition that specifies that job demands are negatively valued and associated with costs while job resources are positively valued and associated with benefits. The third critique of the JD-R regards the inclusion of personal resources in the model. There is no set structure by which to incorporate personal resources; allowing them to be used as mediators, moderators, or antecedents (Schaufeli & Taris, 2014). Researchers may also argue that since personal resources may be used in the JD-R, personal vulnerabilities should also be incorporated into the model. Lastly, Schaufeli and Taris (2014) note that resources and work engagement may interact in reciprocal causation and more research is needed to determine the relationship between these concepts in the JD-R model.

Conservation of Resources. Without a theoretical justification for the inclusion of specific variables, the theoretical framework for the current study is incomplete. The Conservation of Resources (COR) theory by Hobfoll (1989) is used to justify the inclusion of certain variables as job demands and resources for the current study.

The COR theory was originally developed to address major loss issues such as divorce, death of a loved one, and financial hardship. However, the COR has recently been applied to research on burnout with specific burnout stressors fitting into the four categories of resources (i.e., objects, personal characteristics, conditions, and energies) as defined by Hobfoll (1989). Burnout then occurs when environmental conditions create stress thereby depleting or exhausting resources (Lapointe, & Vandenberghe, 2016; van Woerkom, Bakker, & Nishii, 2016). The use of the JD-R in conjunction with the COR allows for the assessment of correctional burnout by justifying the use of variables that are consistent with demands and resources as defined by the JD-R and selection of such variables is supported by the COR theory.

The Conservation of Resources theory is a stress model which posits that individuals seek to keep and protect current resources while attempting to obtain new resources and stress occurs when the individual experiences the potential or actual loss of resources (Hobfoll, 1989). However, the loss of resources is considered more impactful than resource gains and resource gains become more important during periods of resource losses (Hobfoll, Johnson, Ennis, & Jackson, 2003). Hobfoll (2001) proposes that when resources are threatened or depleted, individuals will engage in defensive measures to protect the remaining resources or mobilize remaining resources in an effort to combat stressful circumstances (Hobfoll et al., 2003).

There are two main principles of COR: (1.) Resource loss is more impactful than resource gains and (2.) Individuals protect against resource loss by investing resources (Hobfoll, 2012). COR theory focuses on resources as the crucial role in the stress process and the resulting development of burnout (Hobfoll, 1989). Meaning, individuals utilize

resources to self-regulate, engage in interpersonal relationships, and to acclimate to organizations (Hobfoll, 2012) and when resources used to facilitate these functions are lost, burnout is likely to ensue (Hobfoll, 2003). Additionally, Hobfoll (2012) created the term resource caravans and caravan passageways to describe specific aspects of his theory. Resource caravans refer to the clustered development and depletion of resources as opposed to the development and depletion of a single resource at a time (Hobfoll, 2012). Caravan passageways refer to the environmental characteristics that either assist in the development of resources or that result in the loss of resources (Hobfoll, 2012).

Unlike the JD-R, the COR theory does not heavily consider the role of job demands in the depletion of individual resources. Rather, it predicts that positive work experiences lead to resource gains that will reduce the likelihood of emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment (Hobfoll, 1989, 2011). However, work characteristics such as role conflict, low organizational support, low organizational fairness, role ambiguity, and low decision authority are considered work demands and shown to have positive relationships with burnout and turnover while having negative relationships with job satisfaction and organizational commitment (Hogan et al., 2013; Lambert, 2004; Lambert, Barton-Bellessa, & Hogan, 2014; Lambert, Hogan & Cheeseman, 2011).

Hobfoll (1989, 2001) defines resources as objects (physical tools), personal characteristics (positivity), conditions (seniority, comradery), and energies (time, money, and knowledge) that are of value or assist in obtaining additional resources of value. When faced with stress, to include environmental circumstances, individuals will attempt to

conserve resources in order to minimize the overall loss. However, individuals will seek to develop new resources during times of minimal or no stress.

The Conservation of Resources theory contends that burnout results from a loss of resources that are considered valuable by an individual. Lee and Ashforth (1996) found that individuals experiencing a loss of resources are likely to withdraw emotionally, also known as depersonalization (Maslach, 1981). Neveu (2007) found that the depletion of resources has a positive relationship with the development of emotional exhaustion. He notes that this finding based on the COR model and the significant impact of resources may appear to undermine the JD-R model which places more emphasis on job demands. However, the JD-R model allows for customization when determining variables such as demands and resources and Neveu (2007) indicates that prior JD-R research may simply underestimate the importance of resources in mediating burnout. The current study will assess both job demands and job resources as they relate to resource depletion. Additionally, as resource depletion manifests into occupational burnout, other behavioral and attitudinal outcomes are likely to follow and negatively impact job outcomes such as job satisfaction, organizational commitment, and turnover intent (Hobfoll, 2011; Lee & Ashforth, 1996).

Methodology

Data Source

The current study uses the most recently available, 2015, Prison Social Climate Survey (PSCS) dataset. The process of obtaining approval for use of the 2015 PSCS dataset began with an application to the City University of New York (CUNY) University Integrated Institutional Review Board (IRB). The CUNY IRB application summarized the proposed research study, the research design, procedures and risks, and measures of privacy and confidentiality, and proof of the principle investigators' (PI) completion of the Collaborative Institutional Training Initiative (CITI) program (Appendix E). Upon the CUNY IRB's review and approval (Appendix F), an application was submitted to the Office of Research and Evaluation (ORE) branch of the FBOP.

The application to the FBOP ORE consisted of a request for research approval, a signed researcher statement, curriculum vitae, and the CUNY IRB approval notice. Similar to the CUNY IRB application, the FBOP ORE request for research consisted of research information on the PI and the dissertation committee chairperson, the research purpose, a literature review, research design, methodology, procedures and risks, and measures of privacy and confidentiality. Both the PI and committee chairperson submitted personal curriculum vitae and a signed researcher statement. The research statement is an acknowledgement that the research and researchers will adhere to standard IRB requirements of human subject research. Upon receipt of the complete application, the FBOP ORE branch reviewed the material and the Assistant Director of the Information, Policy, and Public Affairs Division approved (Appendix G) the research proposal and use of the 2015 PSCS dataset.

The PSCS was initially implemented by the ORE branch of the FBOP in 1988 as an annual survey (Saylor, 1988). The FBOP uses the PSCS data along with operational data collected from other agency systems to inform FBOP administrators of individual and organizational trends throughout the agency (Camp, Saylor, & Harer, 1997). The survey aims to obtain staff demographic information and staff perceptions regarding safety and security, quality of life, work environment, and personal well-being (Saylor, 2000). The dataset contains cross-sectional, secondary data obtained by the FBOP with 156 measureable variables after the removal of variables that acted as identifiers (i.e., institution).

The PSCS population is all FBOP employees working in an institution, central and regional staff are not included as they are administrators working outside of a correctional institution. The survey is distributed to a stratified, random sample of FBOP institutional staff where there are a minimum of 120 employees at the institution. As all FBOP staff members are considered law enforcement, the PSCS includes responses from correctional officers as well as staff from all other departments (e.g. unit team, legal, computer services, food services, psychology, medical, education, recreation, religious services, and facilities). The sample is representative of the FBOP employee population based on such demographics such as age, race, ethnicity, and gender. The total number of observations in the sample used is 6,465. See Appendix D for a list of variables used in the current study.

Prior to 2011, the FBOP divided the PSCS into four different versions and issued the various versions to staff. The PSCS was typically split into four sections in order to make the length of the survey more manageable for staff to complete. Therefore, some staff received sections one and three while others may have received sections two and four. The

disadvantage to this method is that the N used for multivariate analysis is reduced because not all respondents completed all sections and variables within the survey. The advantage to the four shorter versions is that the response rates were high. In 2011, the PSCS was modified into one version that could be distributed to all staff. Since extending the length of the survey, response rates have decreased but, it results in all respondents being provided the same questions. The 2015 PSCS was administered to 17,664 staff with 6,465 responding; resulting in a 37 percent response rate. All 6,465 respondents to the 2015 PSCS were issued the full survey. Therefore, each variable used in the current research study contains upwards of 5,500 complete observations.

Many of the items in the PSCS are used to develop scales, both in the PSCS and the current study, which consist of between three and eight items. The items within each scale are weighted equally. Therefore, the scores for each item in a scale will be added, divided by the total number of items within that scale, and then assigned integers in accordance with Saylor's (1984 & 1998) methods for combining multiple variable of a scale into one variable for statistical analysis. This method will maintain the original Likert style and categorical nature of the variables.

Research Questions & Hypotheses

RQ1: How do specific organizational, operational, and traumatic demands and resources relate to correctional burnout?

H1: Job demands of increased dangerousness (IV) increased workload (IV), and decreased decisional authority (IV) will positively relate to burnout (DV).

H2: Increases in organizational and supervisory fairness (IV), supervisory support and quality (IV), and coworker support (IV) will have a negative relationship burnout (DV).

RQ2: How do specific organizational, operational, and traumatic stressors relate to job outcomes such as job satisfaction, organizational commitment, and turnover?

H3: Increased dangerousness (IV) and workload (IV) will negatively relate to job satisfaction (DV) and organizational commitment (DV) and positively relate to turnover (DV) while increased decisional authority (IV) will relate negatively to turnover (DV) and positively to job satisfaction (DV) and organizational commitment (DV).

H4: Organizational and supervisory fairness (IV), supervisory support and quality (IV), and coworker support (IV) will relate positively with job satisfaction (DV) and organizational commitment (DV) while negatively relating to turnover (DV).

RQ3: How does burnout relate to job satisfaction, organizational commitment, and turnover?

H5: Burnout (IV) will negatively relate to job satisfaction (DV).

H6: Burnout (IV) will negatively relate to organizational commitment (DV).

H7: Burnout (IV) will positively relate to turnover (DV).

Variables and Coding

The PSCS has been validated by the Office of Research and Evaluation at the Federal Bureau of Prisons (Saylor, 1984; Saylor, 2000). Furthermore, the PSCS data has been used in numerous research studies focusing on staff burnout (Britton, 1997; Camp, 1994; Camp & Steiger, 1995; Lambert, 2007; Lambert, Edwards, Camp, & Saylor, 2005; Saylor & Wright,

1992; Wright & Saylor, 1991; Wright, Saylor, Gilman, & Camp, 1997). In accordance with the validated construction of the scale variables from the Office of Research and Evaluation of the Federal Bureau of Prisons, the individual items within each scale will be added together to create a new scaled variable (Saylor, 2000). The PSCS dataset was pre-coded by the Office of Research and some of the variable will require recoding for the current research.

Personal Characteristics. The personal characteristic variables include age, race, gender, tenure, veteran status, and educational level. Age is a continuous interval level variable and it is measured as the age of the respondent at the time of their last birthday. Race is a dichotomous nominal variable measured as white and non-white. There are additional race variables which provide counts suitable for descriptive analysis: Asian, Native American, and African American. For the proposed research, the race variables will be combined into one variable and recoded. Gender is currently a dichotomous variable coded as 0 for male and 1 for female and will be recoded as 0 for female and 1 for male. Tenure is a continuous interval level variable measured in years of FBOP service. Military veteran status is a dichotomous nominal variable coded as 0 for non-veteran and 1 for veteran. Education level is an ordinal variable which asks what the highest level of education the respondent has obtained. There are nine answer choices: 1. Some high school, no degree 2. High school, degree 3. Technical training 4. Some college 5. Bachelor's degree 6. Some graduate work 7. Master's degree 8. Ph.D. degree, and 9. Advanced professional degree (e.g. medical doctor, lawyer). The education variable will be collapsed into three categories where some high school, high school degree, and technical training

are coded as 1, some college, bachelor's degree, and some graduate work are coded as 2, and master's degree, Ph.D. degree, and advanced professional degree are coded as 3.

Work Characteristics. As seen in previous correctional burnout studies utilizing the Job Demands Resource model (JD-R), there are numerous variables researchers may use as measurements of demands and resources. The PSCS contains several variables and scales that are used as work characteristics. Variables that are reverse coded are identified by (R) following the item.

Dangerousness. The scale of dangerousness measures staff perceptions of safety within their individual institution and it contains five ordinal level items that use a Likert scale of seven response options. Three of the items have response options of strongly disagree, disagree, somewhat disagree, undecided, somewhat agree, agree, and strongly agree. The items using the above response options are 1. I am really bothered by the frequency with which inmates have used physical force against staff, 2. Security procedures at this institution adequately protect staff, and 3. My executive staff takes security very seriously. Two of the item response options are very safe, safe, somewhat safe, undecided, somewhat dangerous, dangerous, and very dangerous. The items using the above response options are 1. How safe or dangerous do you think it has been in this prison for female staff members who have a lot of contact with inmates? 2. How safe or dangerous do you think it has been in this prison for male staff members who have a lot of contact with inmates? The dangerousness variable is the only variable in the PSCS that can be used as a measure of traumatic stress as there are no variables eliciting staff experiences of violent incidents, threats of violence, or death either directly or indirectly.

Job advancement. This scale elicits staff perceptions of job opportunities for advancement within the institution and the FBOP for females, males, minorities, and non-minorities. There are eight ordinal level items that measure each of the four characteristics for both the institution and the agency. Each item uses a Likert scale of six response options ranging from strongly disagree to strongly agree.

Supervision quality. The quality of supervision scale contains four ordinal level items that have six Likert scale response items ranging from strongly disagree to strongly agree. The items are 1. I often receive feedback from my supervisor for good performance, 2. My supervisor engages me in the planning process, such as developing work methods and procedures for my job, 3. Gives me adequate information on how well I am performing, and 4. On my job I know exactly what my supervisor expects of me.

Supervisory fairness. There are five ordinal variables related to the quality of supervision. Each variable is measured by a Likert scale of response options ranging from strongly disagree to strongly agree. The variables are 1. My last annual performance rating presented a fair and accurate picture of my actual job performance, 2. The standards used to evaluate my performance have been fair and objective, 3. I am not afraid to inform supervisors about things I find wrong with this facility, 4. Information I receive about my performance usually comes too late for it to be of any use to me (R), and 5. I believe that my supervisor demonstrates sensitivity to such personal needs as shift and leave requests by fairly balancing them with the needs of the institution.

Supervisor support. This scale contains five ordinal level items with six Likert scale response options ranging from strongly disagree to strongly agree. The items are 1. My supervisor treats me with respect, 2. My supervisor makes me feel like he/she cares about

me as a person, 3. My supervisor treats me fairly, 4. My supervisor talks to me in a professional manner, and 5. My supervisor responds to my concerns in a timely fashion.

Workload. This scale elicits staff perceptions of whether or not their workload is manageable. It consists of five ordinal level items that have six Likert scale response options ranging from strongly disagree to strongly agree. The items are 1. My workload is manageable, 2. My department has enough staff to get the work done, 3. The staff in my department effectively manage the workload, 4. I feel overwhelmed by the amount of work I am assigned (R), and 5. The amount of work required in my job is unreasonable (R).

Decision authority. There is one variable in the PSCS that effectively measures decision authority. It is an ordinal level variable with six Likert scale response options ranging from strongly disagree to strongly agree. The item states *I have the authority I need to accomplish my work objectives.*

Coworker support. The staff camaraderie scale contains four ordinal level items that have six Likert scale response options ranging from strongly disagree, disagree, somewhat disagree, undecided, somewhat agree, agree, to strongly agree. The four items are 1. The staff in my department cooperate to get the work done, 2. I like the people that I work with, 3. My coworkers and I share job-related knowledge, and 4. My coworkers and I work well together.

Burnout. Burnout includes the emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment. However, the PSCS scale measuring burnout is a modified and shortened measurement labeled *Job Stress* and it focuses on emotional exhaustion and depersonalization.

Job stress. This scale contains five ordinal level items with six Likert scale response options ranging from strongly disagree to strongly agree. The items are 1. I am emotionally drained at the end of the workday, 2. I am fatigued when I get up in the morning and have to face another day on the job, 3. I've become more harsh toward people since I took this job, 4. I worry that this job is hardening me emotionally, 5. Working with people all day is really a strain for me.

Job outcomes. Three specific job outcomes are the focus of the current research study (i.e., job satisfaction, organizational commitment, and turnover intent). The PSCS contains measureable variables for each of the three job outcomes in this study.

Job satisfaction. The job satisfaction scale contains three ordinal level items with six Likert scale response options ranging from strongly disagree to strongly agree. The items are 1. My BOP job is usually interesting to me, 2. My BOP job is usually worthwhile, 3. Most days I enjoy the work I do.

Organizational commitment. The organizational commitment scale measures affective employee commitment to the FBOP overall. The scale has five ordinal level items with six Likert scale response options ranging from strongly disagree to strongly agree. The items are 1. I would recommend the BOP to someone looking for a job. 2. I have a good opinion of the BOP most of the time. 3. Most of the time the BOP is run very well. 4. I am usually satisfied with the BOP. 5. I am proud of working for the BOP.

Turnover intent. The PSCS contains a variable that is appropriate for measuring employee turnover intent. The item is a nominal level variable with three response options of *No* (coded as -1), *Yes* (coded as 0), and *Unsure* (coded as 1). This item states, *I intend to leave the BOP in the next year.*

Analysis Plan

The analysis begins with the presentation and discussion of descriptive statistics of the 2015 PSCS sample. The descriptive statistics encompass the personal characteristics of respondents to include age, race, gender, tenure, veteran status, and education level. The descriptive statistics are followed by bivariate statistical analysis to determine if there are associations between specific variables such as personal characteristics and burnout or job outcomes. The bivariate analysis is followed by multivariate inferential statistical analysis. Several variables used in the current study are considered latent concepts that consist of multiple items that are combined to represent concepts that cannot be directly observed. Therefore, items in each scale will be combined into one variable. Due to the categorical nature of the variables being used in the multivariate analysis, ordered logistic regression is the most appropriate method for additional inferential statistical analysis. The personal characteristic variables will be used as control variables in the multivariate analysis.

Ethical Considerations

There are very few ethical concerns associated with the proposed study, but two issues should be considered: identification of individual survey respondents and the researchers' membership in the group of participants being studied. However, the current research was reviewed and approved by the Institutional review boards of both John Jay College of Criminal Justice and the Federal Bureau of Prisons.

The PSCS data is secondary, originally collected by a third party source on behalf of the FBOP. The original and intact dataset could potentially allow the researcher to identify individual participants by using a combination of variables: institution, department, age, race, and tenure. In order to fully de-identify the dataset, the Federal Bureau of Prisons

removed the “institution” variable so that participants could not be identified through the use of a combination of variables.

The researcher for this study is currently an employee of the Federal Bureau of Prisons and did participate in the 2015 Prison Social Climate Survey which is the dataset used for the current study. Outside readers may be concerned with potential bias of the research; however, the research questions and hypotheses in the current study are supported by prior research. Furthermore, both the John Jay College and Federal Bureau of Prisons Institutional Review Boards found no conflict of interest.

Statistical Analysis

Data Management

The original 2015 PSCS dataset contains 156 variables with 6,465 observations. The deleted variables were not directly related to the research questions and hypotheses in the current study (i.e., crowding, retaliation, and mentoring) or they were removed from the approved dataset by the FBOP for security and identification reasons (i.e., facility code, security level, institution, and regional code). Sixty-five original variables were identified as relevant to, and necessary for, the statistical analysis. The 65 variables included demographic variables and the variables used to create scales measuring latent variables. Data management involved recoding and collapsing variables and also combining variables into the scaled variables. After the completion of data management, the dataset used in the current analysis contains 31 variables which consist of demographic, control, and scaled variables.

Control variables modified include age, race, gender, education, job category, number of years in the FBOP, and inmate contact. In addition to the continuous age variable, a categorical age variable for descriptive analysis where ages 20 to 29 = 1, 30 to 39 = 2, 40 to 49 = 3, 50 to 57 = 4, and 58 and older = 5. Gender was originally coded as 1 for female and 0 for male. Since there are more male employees, the coding was reversed so that 1 equals male and 0 equals female. Education originally contained nine response options ranging from *some high school* to *advanced professional degree*. A new variable was generated and collapsed for education where *some high school, high school degree, and technical training* equal 0; *some college, bachelor's degree, and some graduate work* equal 1; *master's degree, Ph.D degree, and advanced professional degree (e.g. medical doctor, lawyer)*

equal 2. The job category variable originally contained 20 response options covering a variety of departments. A new variable was generated and collapsed into two categories where non-custody positions equal 0 and custody positions equal 1. The inmate contact variable originally contained seven response options (i.e., *never, a few times, once a month, a few times a month, once a week, a few times a week, and every day*). A new inmate contact variable was generated and collapsed where *never, a few times, and once a month* equal 0; *a few times a month and once a month* equal 1; *a few times a week and everyday* equal 2. In addition to the continuous variable of number of years in the FBOP, a categorical variable was generated for descriptive analysis where 0 to 9 years equals 0, 10 to 19 years equals 1, 20 to 29 years equals 2, and 30 to 39 years equals 3.

Race and ethnicity are measured by five different variables that cannot be combined into one variable since they are not mutually exclusive. Therefore, the race variable used for the current analysis is a dichotomous variable where non-white equals 0 and white equals 1. The variable for measuring turnover was recoded so that 0 equals those who do not intend to leave the FBOP within the next year and 1 equals those who are unsure or do plan to leave within a year.

The original 2015 PSCS dataset contains many individual variables that can be combined into composite variables representing latent concepts. Composite variables created for the current analysis include dangerousness, equal job advancement opportunities, supervisory respect, supervisor quality, workload, camaraderie, job stress, job satisfaction, FBOP Commitment, and supervisory fairness. Some of the variable questions were reversed and required recoding. Variables were recoded so that a higher response integers represent a greater presence of that variable. For example, where

responses range between 0 and 6 on the composite variable of dangerousness, a 6 indicates that the respondent believes the level of danger is high.

To confirm the reliability of combining multiple variables, Cronbach's Alpha was used to measure the inter-correlation among the variables intended to make up each composite variable. The alpha levels indicate that all the scales have an acceptable ($0.8 > \alpha \geq 0.7$), good ($0.9 > \alpha \geq 0.8$), or excellent ($\alpha \geq 0.9$) internal consistency: dangerousness $\alpha = .78$, equal job advancement $\alpha = .90$, supervisory respect $\alpha = .96$, supervisory quality $\alpha = .934$, workload $\alpha = .82$, camaraderie $\alpha = .89$, job stress $\alpha = .82$, job satisfaction $\alpha = .89$, FBOP commitment $\alpha = .95$, and supervisory fairness $\alpha = .80$.

Composite variables were created by adding all the variables of the individual scale, determining the number of missing responses across the rows of the combined variables, dropping observations containing rows with more than one missing response, calculating the mean, and rounding to whole integers representative of the original answer choices. Observations with more than one missing response were dropped to maintain only those observations in which the respondent answered at least 80 percent of the questions within the composite variable. Despite dropping observations with response rates below 80 percent, all composite variables maintained an acceptable number of observations: dangerousness (5,421 obs.), equal job advancement opportunities (6,032 obs.), supervisory respect (5,646 obs.), supervisor quality (5,652 obs.), workload (5,758 obs.), camaraderie (5,762 obs.), job stress (5,895 obs.), job satisfaction (5,916 obs.), FBOP Commitment (6,066 obs.), and supervisory fairness (5,583 obs.). The composite variable means were rounded to whole integers so that .0 to .49 = 0, .5 to 1.49 = 1, 1.5 to 2.49 = 2, 2.5 to 3.49 = 3, 3.5 to 4.49 = 4, 4.5 to 5.49 = 5, and 5.5 to 6.0 = 6.

Results

The sample for the 2015 Prison Social Climate Survey consists of 6,465 FBOP employee respondents. The demographic and control variables include age, race, gender, years of service in the FBOP, military veteran status, education level, job category, and frequency of inmate contact. Descriptive statistics of the demographics and other variables are summarized in Table 3 at the end of the current section. Percentages are provided for dichotomous variables and means are provided for continuous variables.

Based on the publicly available FBOP statistics on employee gender and race, the PSCS dataset is fairly representative of the FBOP population, see Table 2. Sixty-seven percent of the PSCS sample is male (N = 6,465) while the 73% of the FBOP employees are male and 11% of the sample is ethnically Hispanic (N = 6,465) while 12% of the FBOP population is Hispanic. Racially (N = 6,465), the sample consists of 2% Native American (FBOP population: 1.3%) with 1.5% male and .5% female, 18% African American (FBOP population: 21.5%) with 10% male and 8% female, 2% Asian (FBOP population: 2.2%) with 1.4% male and .6% female, and 68% White (FBOP population: 62.8%) with 48% male and 20% female. The majority (83%) of the respondents possess at least some college credit with 18% holding advanced degrees beyond a bachelor's degree. However, the 18% includes positions that require advanced degrees such as psychologists, medical doctors, and attorneys.

The sample age (N = 6,465) ranges between 20 and 83 years old. However, with the mandatory retirement age of 57, those exceeding that age require a waiver and only 1.3% (83 obs.) are between the ages of 58 and 83. To test for outliers, age was divided into two groups (20-57 and 58+) and the means were compared across all the variables used in the

current study. The means did not significantly vary, indicating that the 83 observations are not outliers. The years of tenure mimic the age range in that younger employees have less time in service, 41% have zero to nine years of service. With most employees having to retire at the age of 57, the data also shows a significant decline in employees with more than 30 years of service (3%). The 55% of employees that have between 10 and 30 years of service may represent continuance commitment rather than affective commitment. Continuance commitment refers to those who feel they have invested too much in their career (i.e., pension, medical benefits, and personal contributions to the Thrift Savings Plan) to leave before retirement eligibility. However, the variable used to measure FBOP commitment does not allow for distinguishing between the types of commitment.

Table 2. Comparison of descriptive statistics between FBOP and PSCS sample

Variable	FBOP %	PSCS (2015) %
Gender (Male)	73	67
Hispanic	12	11
Race (Native American)	1.3	2
Race (African American)	21.5	18
Race (Asian)	2.2	2
Race (White)	62.8	68

Historically, the field of corrections is dominated by males, this is particularly evident in the percent of males that make up the custody sample. Males account for 84% of the 37% of custody positions, while they only account for 59% of the 63% of non-custody respondents. Similar to corrections, the military is also a male dominated field exemplified by the gender of military veterans employed by the FBOP. Eighty-seven percent of military veterans employed by the FBOP are male. Unlike state and city corrections, all FBOP employees are required to perform correctional duties (i.e., correctional posts, inmate

searches, firearms, and responding to emergencies). Therefore, most employees (96%) have frequent contact with inmates. While some of the employees that have daily contact with inmates are not in custody positions, they are still responsible for correctional duties and face the same dangerous environment.

The variables used as measurements of job demands are dangerousness, workload, and burnout. Based on the Job-Demands Resources model and the Conservation of Resources theory, employees who have more resources available are better equipped to handle job demands. The descriptive findings support this as 72% of respondents report feeling safe, 62% believe their workload is manageable, and only 26% report experiencing symptoms of burnout. While the dangerousness scale measures staff perceptions of danger, the low rate of perceived danger may be influenced by the support of colleagues and the presence of additional resource as explained in the Job Demands-Resources Model. For example, staff may feel safe despite higher rates assault if they have resources available to combat the demands of danger. Many of the variables used in the current analysis are considered resources and may contribute to the lesser impact of job demands: equality in job advancement, supervisory respect, quality, and fairness, and the support of colleagues.

In explaining the low level of perceived dangerousness (28% either somewhat disagree, disagree, or strongly disagree that their institution is safe), it is important to evaluate the available resources to determine whether or not staff feel that they have enough resources to compensate for job demands. The resources used in the current study are all high and include the equality of job advancement opportunities (87%), having decisional authority in daily duties (77%), respectful (78%) and fair (73%) treatment by supervisors, quality supervision (70%), and having the support of colleagues (85%).

The job satisfaction measurement uses a global approach in that it asks respondents broader questions relating to job interests and enjoyment rather than a faceted approach which focuses on specific questions regarding pay, benefits, supervision, and performance. The global approach allows each respondent to personally identify what influences their job satisfaction. Regarding job outcome measurements in comparison to previous research study findings, the 2015 PSCS sample indicates that FBOP employees rank at the higher end of the spectrum on job satisfaction (83%) and commitment to the agency (78%) and towards the lower end of the spectrum with regard to turnover; only 30% of respondents are either considering leaving or planning to leave within one year. **Table 3.** Descriptive statistics of variables used in analysis

Variable	Observations	Mean/%	Standard	Min/Max	% Missing
Gender (Male)	6,465	67%	-	0-1	0
Race (White)	6,465	68%	-	0-1	0
Age	6,465	41.26	8.48	20-83	0
Tenure	6,110	12.83	8.83	0-39	5
Veteran (Yes)	6,110	30%	-	0-1	5
Education	6,330	4.68	1.69	1-9	2
Job Category (C)	6,302	37%	-	-	2
I/M Contact	6,327	5.83	.76	0-6	2
Authority	5,636	4.21	1.63	0-6	13
Dangerousness	5,421	1.91	1.29	0-6	16
Job Advance	6,032	4.79	1.07	0-6	7
Supervisor Fair	5,583	4.16	1.34	0-6	14
Supervisor Qual	5,652	4.17	1.74	0-6	13
Supervisor Respect	5,646	4.47	1.62	0-6	13
Workload	5,758	2.25	1.38	0-6	11
Coworker Support	5,762	4.64	1.24	0-6	11
Burnout	5,895	2.53	1.43	0-6	9
Job Satisfaction	5,916	4.53	1.29	0-6	8
Commitment	6,066	4.32	1.41	0-6	6
Turnover (Yes)	5,919	30%	-	0-1	8

Chi-square tests are used for the bivariate analysis in the current study. The assumptions have been met in that the samples are random, the variables are categorical, and the cell frequency is greater than five in all cells. The two continuous variables, age and years in the FBOP, were transformed into categorical variables which were used in the bivariate analysis. While not specifically personal characteristics, job contact and frequency of inmate contact were included in the bivariate analysis to determine if either variable had

a significant relationship with burnout and job outcomes. All findings regarding the bivariate analysis are summarized in Table 4. While most of the relationships are statistically significant, multivariate analysis is required to specify the nature of the relationships.

Previous research has found that personal characteristics typically do not have significant relationships with burnout and that the best predictors of burnout are workplace variables such as supervisory and organizational support, decisional authority, and fair treatment (Hogan et al., 2013; Lambert, 2004; Lambert & Barton-Bellessa et al., 2014; Lambert, Hogan & Cheeseman, 2011). While workplace characteristics are the focus of the current study, bivariate analysis was used to explore the relationships between personal characteristics and burnout. Unlike previous research, the current study found highly significant relationships to burnout and all but one (military veteran status) of the personal characteristics. Race ($X^2 = 59.16$), age ($X^2 = 61.79$), tenure ($X^2 = 74.89$), and job category ($X^2 = 23.88$) were all related to burnout with an alpha level of $p < .001$, indicating highly significant relationships. Gender ($X^2 = 13.63$), education ($X^2 = 22.80$), and inmate contact ($X^2 = 25.06$) were related to burnout with an alpha level of $p < .05$, indicating statistically significant relationships. While the chi squares indicate significant relationships, there may be extraneous factors influencing the relationships. For instance, females who report higher rates of burnout may experience higher levels of sexual harassment in a male dominated workplace. Therefore, the personal characteristics will be used in the multivariate analysis to further explore the relationships to burnout and the results should be interpreted with caution.

Similar to research on personal characteristics and burnout, most prior studies find little to no relationship between personal characteristics and job satisfaction (Castle, 2008; Lambert & Hogan et al., 2002; Lambert, Kim, Keena, & Chessemann, 2015; Leip & Stinchcomb, 2013; Paoline, Lambert, & Hogan, 2015). However, the bivariate analysis in the current study indicates highly significant statistical relationships between all of the personal characteristics and job satisfaction. Gender ($X^2 = 64.42$), race ($X^2 = 59.68$), age ($X^2 = 93.57$), tenure ($X^2 = 44.91$), education ($X^2 = 56.81$), and job category ($X^2 = 146.09$) were all highly related to job satisfaction with an alpha level of $p < .001$. Veteran status ($X^2 = 16.27$) and frequency of inmate contact ($X^2 = 22.89$) were also significantly related to job satisfaction with alpha levels of $p < .01$ and $p < .05$ respectively. However, similar to the relationships with burnout, the results should be interpreted with caution as there may be extraneous factors influencing the relationships between personal characteristics and job satisfaction.

All but one (veteran status) of the personal characteristics has a statistically significant relationship with FBOP commitment. Race ($X^2 = 41.43$), age ($X^2 = 58.03$), and job category ($X^2 = 54.86$) were all highly related to job satisfaction with an alpha level of $p < .001$. Gender ($X^2 = 15.34$) and tenure ($X^2 = 38.29$) were significant with an alpha level of $p < .01$. Education ($X^2 = 24.96$) and frequency of inmate contact ($X^2 = 21.17$) were also significantly related to job satisfaction with an alpha level of $p < .05$. However, the PSCS measure affective commitment with questions pertaining to an employees' positive emotional connection to the FBOP (Allen & Meyer, 1990). Therefore, this study cannot measure or differentiate between normative and continuance commitment.

Previous research focusing on the relationship between personal characteristics and turnover has rendered inconsistent results (Griffin et al., 2013). In the current study, all personal characteristics, except gender, were significantly related to turnover. Not surprisingly, the highest chi squares were age ($X^2 = 188.19$) and tenure ($X^2 = 157.16$). This may be explained by those who are closer to the age and time in service requirements planning on departing from the agency.

Based on prior research (Schaufeli & Peeters, 2000) indicating that personal characteristics were not significantly related to correctional burnout and job outcomes, the current findings are unanticipated. The analysis of the personal characteristics was exploratory and results were expected to remain similar to prior research. Yet, based on their significance, the personal characteristics are included in further analysis as independent variables in order to specify the nature of the relationships. The highly significant relationships with the personal characteristics to burnout and job outcomes indicate that correctional administrations may not have much influence on burnout and job outcomes if the personal and static factors are so influential. However, the bivariate analysis does not allow for much interpretation as to the nature or direction of the relationship between personal characteristics, burnout, and job outcomes. The multivariate analysis will further explore the significance and nature of each personal characteristic to burnout and job outcomes.

Table 4. Demographic characteristics by burnout and job outcomes

Demographic Characteristics	Burnout N = 5,895 n(%)	X ² (df)	Job Satisfaction N = 5,916 n(%)	X ² (df)	Org Commitment N = 6,066 n(%)	X ² (df)	Turnover Intent N = 5,919 n(%)	X ² (df)
Sex								
Male	3,972(67)		3,984(67)		4,092(67)		3,985(67)	
Female	1,923(33)	13.63(6)*	1,932(33)	64.42(6)***	1,974(33)	15.34(6)**	1,934(33)	1.39(1)
Race								
White	4,076(69)		4,084(69)		4,168(69)		4,085(69)	
Other	1,819(31)	59.16(6)***	1,832(31)	59.68(6)***	1,898(31)	41.43(6)***	1,834(31)	4.23(1)*
Age								
20 to 29	521(9)		523(9)		543(9)		522(9)	
30 to 39	1,929(33)		1,934(33)		2,006(33)		1,936(33)	
40 to 49	2,307(39)		2,320(39)		2,364(39)		2,322(39)	
50 to 57	1,059(18)		1,061(18)		1,073(18)		1,060(18)	
≥ 58	79(1)	61.79(24)***	78(1)	93.57(24)***	80(1)	58.03(24)***	79(1)	188.19(4)***
Tenure								
0-9	2,267(41)		2,271(41)		2,353(41)		2,273(41)	
10-19	1,844(33)		1,852(33)		1,903(33)		1,853(33)	
20-29	1,275(23)		1,283(23)		1,295(23)		1,282(23)	
30-39	184(3)	74.89(18)***	184(3)	44.91(18)***	185(3)	38.29(18)**	181(3)	157.16(3)***
Veteran								
Yes	1,641(29)		1,649(30)		1,694(29)		1,646(30)	
No	3,929(71)	6.02(6)	3,941(70)	16.27(6)**	4,042(71)	10.88(6)	3,943(70)	12.51(1)***
Education								
≤High School	990(17)		994(17)		1,013(17)		990(17)	
≤College	3,829(65)		3,842(65)		3,954(65)		3,844(65)	
≥Advanced	1,064(18)	22.80(12)*	1,068(18)	56.81(12)***	1,086(18)	24.96(12)*	1,073(18)	19.93(2)***
Job Category								
Custody	2,090(36)		2,098(36)		2,183(36)		2,094(36)	
Non-Custody	3,770(64)	23.88(6)***	3,782(64)	146.09(6)***	3,845(64)	54.86(6)***	3,788(64)	8.52(1)**
Inmate Contact								
≤Once a month	103(2)		104(2)		105(2)		104(2)	
≤Once a week	102(2)		102(2)		103(2)		102(2)	
≥Few p/ week	5,679(96)	25.06(12)*	5,699(96)	22.89(12)*	5,846(96)	21.17(12)*	5,701(96)	6.59(2)*

Note: p<.05*, p<.01**, p<.001***

Correlations and ordered logistic regression are used for the multivariate analysis in the current study. The assumptions for the ordered logistic regression are met in that the dependent variables are ordinal, both independent and dependent variables have proportional thresholds, the independent variables are categorical or continuous, and correlations are used to determine if there is any multicollinearity among independent variables; using a cutoff of 0.80. The Pseudo-R² in ordered logistic regression is different than in linear regression in that it is the McFadden pseudo-R² and does not explain the variance. An ordered logistic regression model can have significant results between variables despite a minimal pseudo-R². Since the pseudo-R² does not explain variance as it does in linear regression, it is unusual to see the statistic included in the output data. The pseudo-R² is not reported in the ordered logistic regression models for the current study. Results of the correlations are summarized in Table 5 and results of the regression analysis are summarized in Table 6.

The pairwise correlation indicates that some of the independent variable have weak levels of multicollinearity. However, using the cutoff of 0.80, only two independent variables have multicollinearity above the cutoff; supervisory respect and supervisory quality (.8825). Therefore, hypotheses containing the two correlated independent variables will be modified by removing supervisory respect and using only supervisory quality in the analysis. Hypothesis two (*H2*: Increases in organizational and supervisory fairness, supervisory support and quality, and coworker support will have a negative relationship burnout) and four (*H4*: Organizational and supervisory fairness, supervisory support and quality, and coworker support will relate positively with job satisfaction and organizational commitment while negatively relating to turnover) contain the intercorrelated variables of

supervisory respect and supervisory quality. Therefore, hypotheses two and four are modified by removing supervisory respect from the model as an independent variable. While not exceeding the cutoff of 0.80, the correlation between age and tenure is quite high at 0.77. Therefore, tenure will be removed from the hypothesis testing in favor of age.

The ordered logistic regression models testing the seven hypotheses were all highly statistically significant ($p < .001$) and the outcomes are similar to prior studies on burnout (Demerouti et al., 2001; Denhof et al., 2014), job satisfaction (Armstrong et al., 2015; Hsu, 2011; Lambert & Kim et al., 2015), organizational commitment (Hogan et al., 2013; Lambert, Hogan, & Cheeseman Dial, 2011; Lambert, Hogan, & Cheeseman et al., 2013; Lambert, Hogan, & Keena, 2015), and turnover (Lambert & Paoline, 2010; Garland, Hogan, Kelley, Kim, & Lambert, 2013; Griffin et al., 2013; Lambert & Griffin et al., 2014; Lambert & Hogan, 2009; Minor et al., 2009; Garland et al., 2014). While consistent with the prior research, the results are also in accordance with the JD-R model and COR theory in that the availability of resources better equips staff to handle job demands and diminishes the onset of burnout symptoms. Furthermore, resources help to increase job satisfaction and organizational commitment while also decreasing turnover.

Table 5. Correlations for burnout, job outcomes, and independent variables

	(Supervisory)																			
	Burnout Sat	Commit	Turnover	Danger	Advance	Respect	Quality	Fair	Workload	Camarad	Gender	Race	Edu	Age	Tenure	Job Cat	Veteran	Authority	Contact	
Burnout	1.0000																			
Job Sat	-0.3811	1.0000																		
Commit	-0.3930	0.6672	1.0000																	
Turnover	0.2397	-0.3502	-0.4080	1.0000																
Danger	0.3419	-0.3662	-0.4652	0.2015	1.0000															
Advance	-0.2685	0.4669	0.5779	-0.2671	-0.4099	1.0000														
Respect	-0.2752	0.4224	0.4747	-0.2603	-0.3639	0.4306	1.0000													
Quality	-0.2746	0.4395	0.4754	-0.2641	-0.3564	0.4052	0.8825	1.0000												
Fair	-0.3121	0.4503	0.4954	-0.2719	-0.3961	0.4511	0.7734	0.7883	1.0000											
Workload	0.4866	-0.3189	-0.4003	0.2262	0.3254	-0.2902	-0.3067	-0.2962	-0.3362	1.0000										
Camarad	-0.2771	0.4421	0.4653	-0.2308	-0.2954	0.4343	0.5162	0.4901	0.4814	-0.3158	1.0000									
Gender	0.0454	-0.1020	-0.0337	0.0154	0.0623	0.0030	-0.0303	-0.0352	-0.0644	-0.0022	-0.0220	1.0000								
Race	0.0762	-0.0909	-0.0746	-0.0268	0.0336	-0.0081	0.0039	-0.0165	-0.0037	0.0072	-0.0021	0.1025	1.0000							
Edu	-0.0097	0.0463	0.0031	0.0530	-0.0909	0.0370	0.0326	0.0224	0.0462	0.0623	0.0481	-0.2029	-0.0788	1.0000						
Age	0.0430	0.1067	0.0003	0.0631	-0.1007	0.0130	0.0291	0.0614	0.0691	0.0872	0.0393	0.0197	-0.0931	0.0271	1.0000					
Tenure	0.1161	0.0478	-0.0206	0.0990	-0.0665	0.0076	0.0291	0.0627	0.0573	0.0873	0.0257	0.1208	-0.0907	-0.1118	0.7700	1.0000				
Job Cat	-0.0249	-0.1547	-0.0801	0.0380	0.1882	-0.0755	-0.1642	-0.1919	-0.1937	-0.0906	-0.1202	0.2542	0.0333	-0.2631	-0.2972	-0.1881	1.0000			
Veteran	-0.0002	-0.0485	-0.0354	0.0473	0.0320	-0.0239	-0.0267	-0.0430	-0.0373	0.0048	-0.0574	0.2626	-0.0195	-0.1041	0.0221	0.1826	0.1730	1.0000		
Authority	-0.3364	0.44828	0.5495	-0.2761	-0.4740	0.4755	0.5689	0.5630	0.5804	-0.4116	0.4406	-0.0355	-0.0686	0.0121	0.0426	0.0311	-0.0978	-0.0261	1.0000	
I. Contact	-0.0142	0.0319	0.0440	-0.0363	-0.0285	0.0204	0.0316	0.0220	0.0025	-0.0050	0.0492	0.0318	0.0234	0.0157	-0.0275	-0.0459	-0.0383	0.0006	0.0252	1.0000

Note: .8 is used as the threshold to determine correlations

Hypothesis 1. The first hypothesis proposes that as certain job demands (i.e., dangerousness, workload, and lack of decisional authority) increase, employees are more likely to experience symptoms of burnout. The model ($X^2 = 1755.84, p < .001, df=10$) indicates several statistically significant relationships between independent variables and burnout and there is a ten percent change in the null model (15 percent) when predictors are included in the research model. As expected, and unlike the chi square results, the relationship between some of the personal characteristics and burnout diminish; frequency of inmate contact ($p < .72$) and level of education ($p < .34$). However, the regression model shows that males ($or=1.2112, p < .001, SE=.07$), Whites ($or=1.3816, p < .001, SE=.08$), and older employees ($or=1.0086, p < .008, SE=.003$) are more likely to experience symptoms of burnout.

The main purpose of this model is to determine the relationship of the work characteristics of dangerousness, workload, and decisional authority to burnout. Both dangerousness and workload have a positive correlation to burnout and the results indicate that for a one unit increase in dangerousness on burnout, when all other variables are held constant, the odds of being in a higher burnout category 35 percent more likely ($p < .001, SE=.03$). For every one unit increase in workload the odds of being in a higher category of burnout 82 percent more likely ($p < .001, SE=.04$). Based on these findings, workload is the more influential job demand. While low decisional authority is a job demand, the coding of variable dictates that higher numbers represent increases. Therefore, decisional authority has a negative relationship with burnout in that when authority increases, burnout decreases. Specifically, for every one unit increase in

decisional authority the odds of being in a higher category of burnout 13 percent less likely ($p < .001$, $SE = .02$). Results are summarized in Table 6.

Hypothesis 2. Whereas hypothesis one used job demands as the independent variables, hypothesis two tests the relationship of job resources and burnout with the proposition that increased resources will reduce the symptoms of burnout. The job resources selected are staff camaraderie, supervisory quality, and supervisory fairness, while the control variables include the frequency of inmate contact, gender, race, education level, age, veteran status, and job category. With 5,203 observations the research model is statistically significant ($\chi^2 = 787.02$, $p < .001$, $df = 10$) with a four percent change from the null model (12%), indicating a significant relationship with at least one of the independent variables.

Surprisingly, several of the personal characteristics remain significantly related to burnout when used in the regression model for hypothesis two. Similar to the model used to test the first hypothesis, model two shows that males ($or = 1.2485$, $p < .001$, $SE = .07$), Whites ($or = 1.4347$, $p < .001$, $SE = .08$), employees in non-custody positions ($or = .7100$, $p < .001$, $SE = .04$), older employees ($or = 1.0124$, $p < .001$, $SE = .003$) and non-veterans ($or = .8934$, $p < .05$, $SE = .05$) are more likely to experience symptoms of burnout.

The foundation of the second model is to test the relationship between work resources and burnout. The COR theory and JD-R model suggest that having positive resources will compensate for job demands and reduce the likelihood of staff experiencing symptoms of burnout. The resources used in this model are staff camaraderie ($p < .001$), supervisory quality ($p < .06$), supervisory fairness ($p < .001$). The findings fit within the theoretical framework in that the availability of resources does in fact reduce the likelihood

of experiencing symptoms of burnout. Specifically, the results indicate that for every one unit increase in supervisory fairness the odds ratio of being in a higher category of burnout decrease by 18 percent ($p < .001$, $SE = .02$). Additionally, for every one unit increase in staff camaraderie the odds of being in a higher category of burnout are 14 percent less likely ($p < .001$, $SE = .02$). Results are summarized in Table 6.

Table 6. Ordered logistic regression predicting burnout

Predictor	OR	Burnout Z	P > z
Hypothesis 1 (n=5,048)			
Race			
White	1.3816	5.64	.001
Age	1.0086	2.66	.008
Sex			
Male	1.2112	3.24	.001
Education	1.0672	0.96	.337
Inmate Contact	.9508	-0.36	.720
Veteran			
Yes	.8935	-1.94	.053
Job Category			
Custody	.8939	-1.90	.058
Dangerousness	1.3514	12.83	.001
Workload	1.8176	26.52	.001
Authority	.8757	-6.94	.001
Hypothesis 2 (n=5,203)			
Supervisory Fairness (n=5,208)	.7272	-10.24	.001
Supervisory Quality (n=5,272)	.9560	-1.88	.061
Camaraderie (n=5,376)	.7667	-11.12	.001

Note: Odds ratio (OR) is interpreted as $1-K$ if $K < 1$ and $K-1$ if $K > 1$. $OR > 1$ = an increase in likelihood, $OR < 1$ = a decrease in likelihood.

Hypothesis 3. The first part of hypothesis three proposes that job demands (dangerousness, workload, and low decisional authority) will increase turnover while

decreasing job satisfaction and organizational commitment. The hypothesis is tested using three ordered logistic models where the dependent variables of job satisfaction, turnover, and FBOP commitment are tested separately with nine independent variables (inmate contact, gender, race, education, age, job category, veteran status, dangerousness, and workload); all models are statistically significant and results are summarized in Table 7.

The first model uses the dependent variable of job satisfaction and the findings support the hypothesized relationship and both the JD-R model and COR theory. The regression model is statistically significant ($\chi^2 = 1803.45$, $p < .001$, $df=10$) with a 12 percent change from the null model (15%) and indicates that the job demands have a negative relationship with job satisfaction. Specifically, for every one unit increase in dangerousness the odds of being in a higher category of job satisfaction are 24 percent less likely ($p < .001$, $SE=.02$) and for every one unit increase in workload the odds of being in a higher category of job satisfaction are decreased by 24 percent ($p < .001$, $SE=.02$). For every one unit increase in decisional authority the odds of being in a higher category of job satisfaction increased by 59 percent 1.5883 ($p < .001$, $SE=.03$). Personal characteristics were not expected to have a significant relationship with job satisfaction but, gender ($p < .001$), race ($p < .001$), age ($p < .001$), and job category ($p < .001$) were all statistically significant and indicate that Whites, males, and employees in custody positions are less likely to be satisfied with their job while older individuals are more likely to experience increased job satisfaction. Specifically, Whites are 28 percent less likely to be in a higher category of job satisfaction ($p < .001$, $SE=.04$) while males are 24 percent less likely to be in a higher job satisfaction category ($p < .001$, $SE=.04$). The odds of individuals in custody positions being in a higher category of job satisfaction decrease by 25 percent ($p < .001$, $SE=.05$). For every one

unit increase in age the odds of being in a higher job satisfaction category increase by two percent ($p < .001$, $SE = .003$).

The second model uses the dependent variable of FBOP commitment. Model two is statistically significant ($\chi^2 = 2583.46$, $p < .001$, $df = 10$) with a 16 percent change from the null model (17%) when predictors are included and, similar to the first model, it indicates that job demands (dangerousness, workload, and low decisional authority) have a negative relationship with FBOP commitment. Specifically, for every one unit increase in dangerousness the odds of being in a higher category of FBOP commitment decrease by 39 percent ($p < .001$, $SE = .02$) and for every one unit increase in workload the odds of being in a higher category of FBOP commitment decrease by 29 percent ($p < .001$, $SE = .02$). For every one unit increase in decisional authority the log odds of being in a higher category of FBOP commitment increase by 68 percent ($p < .001$, $SE = .04$). This model resulted in fewer significant relationships between the dependent variable of FBOP commitment and personal characteristics. However, race ($p < .001$) and frequency of inmate contact ($p < .02$) were statistically significant. The odds for Whites being in a higher category of FBOP commitment are 29 percent less likely ($p < .001$, $SE = .04$). It is unknown why Whites experience less FBOP commitment and less job satisfaction and this should be explored in future research with the PSCS dataset. Unsurprisingly, increases in inmate contact result in more organizational commitment. Specifically, for every one unit increase in inmate contact the odds of being in a higher FBOP commitment category increase by 39 percent ($p < .02$, $SE = .19$). Previous research indicates that staff who interact more frequently with inmates tend to feel a greater sense of accomplishment and thereby a greater connection to the agency and its mission.

The third model uses the dependent variable of turnover. Model three is statistically significant ($X^2 = 512.55$, $p < .001$, $df=10$) with a eight percent change from the null model (16%) when predictors are included and it indicates that dangerousness and workload increase turnover while decisional authority decreases turnover. Specifically, every one unit increase in dangerousness the odds of being in a higher category of turnover 15 percent more likely ($p < .001$, $SE=.03$) and for every one unit increase in workload the log odds of being in a higher category of turnover increases by 21 percent ($p < .001$, $SE=.03$). For every one unit increase in decisional authority the odds of being in a higher category of turnover decrease by 22 percent ($p < .001$, $SE=.02$). Unexpectedly, two of the personal characteristics remain statistically significant to turnover. Age ($p < .001$) and job category ($p < .002$) were statistically significant and indicate that for every one year increase in age employees are two percent more likely to leave the agency while those in custody positions are 27 percent more likely to leave the agency. However, the age could be more related to turnover due to the inclusion of respondent who are within one year of mandatory retirement. Therefore, those individual are separating from the agency for very different reasons that younger individuals who are forfeiting retirement benefits by leaving the organization. It is important to explore these relationships in future research in order to better understand how these personal characteristics interact with employee turnover intentions.

Hypothesis 4. The fourth hypothesis, similar to the third hypothesis, proposes that positive job resources will increase job satisfaction and organizational commitment while decreasing turnover. The fourth hypothesis simply uses different resources as independent variables. In addition to personal characteristics, the job resources used are supervisory

fairness, supervisory quality, and staff camaraderie. Three regression models are used, one for each of the job outcomes (job satisfaction, FBOP commitment, and turnover). All three models are statistically significant and support the hypothesis, the JD-R model, and the COR theory. Results of the three models are summarized in Table 6.

The first model shows a 12 percent change from the null model (12%), it uses the dependent variable of job satisfaction and it is statistically significant ($X^2 = 1865.22$, $p < .001$, $df=10$) indicating that increases in the job resources of supervisory fairness, supervisory quality, and staff camaraderie increase employee job satisfaction. Specifically, for every one unit increase in supervisory fairness and supervisory quality the odds of being in a higher category of job satisfaction increase by 43 percent ($p < .001$, $SE=.05$) and 17 percent ($p < .001$, $SE=.03$) respectively. For every one unit increase in staff camaraderie the log odds of being in a higher category of job satisfaction increase by 69 percent ($p < .001$, $SE=.04$). Similar to the findings for hypothesis three, the personal characteristics of gender ($p < .001$), race ($p < .001$), education ($p < .008$), and age ($p < .001$) were statistically significant and indicate that Whites, males, and employees with higher education are less likely to be satisfied with their job while older employees are more likely to experience job satisfaction. Specifically, the odds for Whites being in a higher category of job satisfaction decrease by 36 percent ($p < .001$, $SE=.04$) while the odds of males being in a higher job satisfaction category are decreased by 26 percent ($p < .001$, $SE=.04$). For every one unit increase in age the odds of being in a higher job satisfaction category increase by 2 percent ($p < .001$, $SE=.003$) and for every one unit increase in education the odds of being in a higher category of job satisfaction is decreased by 17 percent ($p < .008$, $SE=.06$). It is unknown why Whites and males are less satisfied but, the relationship between age and job satisfaction

appears logical in that those who are not satisfied are not likely to stay with the organization as long as those individuals who experience higher levels of job satisfaction.

The second model uses the dependent variable of FBOP commitment and is statistically significant ($\chi^2 = 2120.32$, $p < .001$, $df=10$) with a 13 percent change from the null model (15%), indicating that FBOP commitment is increased when positive resources such as supervisory quality, supervisory fairness, and staff camaraderie are increased. Specifically, for every one unit increase in supervisory fairness and supervisory quality the odds of being in a higher category of FBOP commitment increase by 57 percent ($p < .001$, $SE=.05$) and 19 percent ($p < .001$, $SE=.03$) respectively. For every one unit increase in staff camaraderie the odds of being in a higher category of FBOP commitment increase by 71 percent ($p < .001$, $SE=.04$). Frequency of inmate contact ($p < .04$), race ($p < .001$), and age ($p < .01$) were statistically significant indicating that Whites and older employees are less committed to the organization while employees with more inmate contact experience higher rates of commitment. Specifically, the odds for Whites being in a higher category of FBOP commitment decrease by 38 percent ($p < .001$, $SE=.04$) while a one unit increase in age decreases the odds of being in a higher FBOP commitment category by one percent ($p < .01$, $SE=.003$). For every one unit increase in frequency of inmate contact the odds of being in a higher category of FBOP commitment are increased by 33 percent ($p < .04$, $SE=.18$).

Table 7. Ordered logistic regression predicting job outcomes

Predictor	Job Satisfaction n=5,053 OR (z)	FBOP Commitment n=5,047 OR (z)	Turnover n=5,050 OR (z)
Hypothesis 3			
Race			
White	.7192(-5.55)***	.7131(-5.64)***	.8838(-1.69)
Age	1.0176(5.16)***	.9947(-1.57)	1.0220(5.16)***
Sex			
Male	.7619(-4.43)***	1.0502(.79)	1.0377(.48)
Education	.8766(-1.90)	.9874(-.18)	1.1607(1.69)
IM Contact	1.2659(1.63)	1.3904(2.33)*	.7480(-1.69)
Veteran			
Yes	.9528(-.81)	.9325(-1.16)	1.1388(1.76)
Job Category			
Custody	.7563(-4.56)***	.8869(-1.95)*	1.2676(3.13)**
Danger	.7662(-11.01)***	.6179(-19.44)***	1.1567(5.11)***
Workload	.7686(-11.86)***	.7166(-14.74)***	1.2113(7.25)***
Authority	1.5883(22.29)***	1.6759(24.72)***	.7813(-11.06)***
Hypothesis 4			
	n=5,208	n=5,202	n=5,205
Supervisor	1.1748(6.41)***	1.1919(6.97)***	.8988(-3.66)***
Quality			
Supervisor	1.4325(10.96)***	1.5699(13.70)***	.7786(-6.52)***
Fairness			
Camaraderie	1.6869(20.28)***	1.7138(20.90)***	.8098(-7.37)***

Note: p<.05*, p<.01**, p<.001***

Note: Odds ratio (OR) is interpreted as 1-K if K<1 and K-1 if K>1. OR>1 = an increase in likelihood, OR<1 = a decrease in likelihood.

The third model uses the dependent variable of turnover and is statistically significant ($X^2 = 504.66$, $p < .001$, $df=10$) with an eight percent change from the null model (14%) indicating that increases in supervisory quality, supervisory fairness, and staff camaraderie decrease turnover. Specifically, for every one unit increase in staff camaraderie the odds of being in a higher category of turnover decrease by 20 percent ($p < .001$, $SE=.02$). For every one unit increase in supervisory fairness and supervisory

quality the odds of being in a higher category of turnover decrease by 23 percent ($p < .001$, $SE = .03$) and 11 percent ($p < .001$, $SE = .03$) respectively.

While most of the personal characteristics were not statistically significant, increases in education ($p < .04$) and age ($p < .001$) were significantly related to higher rates of turnover. Specifically, for every one unit increase in education the odds of being in a higher category of turnover are increased by 20 percent ($p < .04$, $SE = .10$). For every one unit increase in age the odds of being in a higher turnover category increase by two percent ($p < .001$, $SE = .004$).

Hypothesis 5. Previous research has used job outcomes to predict burnout but, hypotheses five, six, and seven use burnout to predict job outcomes. The fifth hypothesis proposes that increases in burnout will result in decreased job satisfaction. With a seven percent change from the null model (7%), the research model is statistically significant ($X^2 = 1216.61$, $p < .001$, $df = 8$) and confirms that as burnout increases, job satisfaction decreases. Results indicate that for a one unit increase in burnout on job satisfaction, when all other variables are held constant, the odds of being in a higher job satisfaction category decrease by 45 percent ($p < .001$, $SE = .01$). Besides the relationship measured in hypothesis six, this is the strongest and most impactful relationship between an independent and dependent variable in the statistical analysis of the current study. Several personal characteristics were also significantly related to job satisfaction in this model [gender ($p < .002$), race ($p < .001$), age ($p < .001$), education ($p < .02$), veteran ($p < .05$), and job category ($p < .001$)] indicating that Whites, males, employees in custody positions, veterans, and those with higher education experience decreases in job satisfaction while older employees are more satisfied. The odds of Whites being in a higher category of job satisfaction

decrease by 25 percent ($p < .001$, $SE = .04$) while the odds of those in custody positions being in a higher job satisfaction category decrease by 40 percent ($p < .001$, $SE = .03$). For every one unit increase in age, the odds of being in a higher category of job satisfaction increase by two percent ($p < .001$, $SE = .003$) while odds of males being in a higher category of job satisfaction decrease by 16 percent ($p < .002$, $SE = .05$). Veterans are 11 percent ($p < .02$, $SE = .05$) less likely to be in a higher category of job satisfaction while a one unit increase in education decreased the odds of being in a higher job satisfaction category by 15 percent ($p < .02$, $SE = .06$). Results are summarized in Table 8.

Hypothesis 6. The sixth hypothesis proposes that as burnout increases, FBOP commitment will decrease; the model is statistically significant ($X^2 = 1099.63$, $p < .001$, $df = 8$) with a seven percent change from the null model (10%). The logistic regression model for this hypothesis produced the strongest statistical relationship of the current study. The results indicate that for a one unit increase in burnout on FBOP commitment, when all other variables are held constant, the odds of being in a higher FBOP commitment category decrease by 45 percent ($p < .001$, $SE = .01$). The relationships between FBOP commitment and the personal characteristics of frequency of inmate contact ($p < .02$), race ($p < .001$), job category ($p < .001$), and veteran status ($p < .03$) are significant. Results indicate that Whites, employees in custody positions, and veterans experience decreased rates of organizational commitment while more frequent inmate contact results in more organizational commitment. Specifically, the odds of Whites being in a higher category of FBOP commitment decrease by 25 percent ($p < .001$, $SE = .04$) while the odds of those in custody positions being in a higher FBOP commitment category decrease by 35 percent ($p < .001$, $SE = .04$). The odds of veterans being in a higher FBOP commitment category are

decreased by 12 percent ($p < .03$, $SE = .05$). For every one unit increase in inmate contact, the odds of being in a higher category of FBOP commitment increase by 37 percent ($p < .02$, $SE = .18$). Results are summarized in Table 7.

Hypothesis 7. The final hypothesis proposes that increases in burnout will result in increased turnover rates. The research model is statistically significant ($\chi^2 = 369.45$, $p < .001$, $df = 8$) and shows a six percent change from the null model (8%) when predictors are included. Results confirm the hypothesis and indicate that for a one unit increase in burnout on turnover, when all other variables are held constant, the odds of being in a higher turnover category increase by 45 percent ($p < .001$, $SE = .03$). Unexpectedly, and similar to the findings from hypotheses five and six, several personal characteristics are positively and significantly related to turnover: education ($p < .02$), age ($p < .001$), job category ($p < .001$), and veteran status ($p < .008$) are significant. Specifically, for every one unit increase in education the odds of being in a higher category of turnover increase by 21 percent ($p < .02$, $SE = .09$) while the odds of those in custody positions being in a higher turnover category increase by 45 percent ($p < .001$, $SE = .10$). The odds of veterans being in a higher turnover category are increased by 20 percent ($p < .008$, $SE = .08$). For every one unit increase in age the odds of being in a higher turnover category are increased by two percent ($p < .001$, $SE = .003$). Results are summarized in Table 7.

Table 8. Ordered logistic regression predicting burnout on job outcomes

Predictor	Job Satisfaction n=5,513 OR (z)	FBOP Commitment n=5,503 OR (z)	Turnover n=5,507 OR (z)
Race			
White	.7519(-5.09)***	.7452(-5.27)***	.8966(-1.60)
Age	1.0224(7.01)***	.9995(-.15)	1.0215(5.46)***
Sex			
Male	.8354(-3.12)**	1.0692(1.17)	.9766(-.33)
Education	.8545(-2.39)*	.9445(-.87)	1.2075(2.28)*
IM Contact	1.2790(1.82)	1.3707(2.38)*	.7908(-1.44)
Veteran			
Yes	.8940(-1.97)*	.8863(-2.14)*	1.2028(2.67)**
Job Category			
Custody	.5979(-9.05)***	.6519(-7.58)***	1.4509(5.38)***
Burnout	.5583(-30.14)***	.5579(-30.34)***	1.4487(16.66)***

Note: $p < .05^*$, $p < .01^{**}$, $p < .001^{***}$

Note: Odds ratio (OR) is interpreted as $1-K$ if $K < 1$ and $K-1$ if $K > 1$. $OR > 1$ = an increase in likelihood, $OR < 1$ = a decrease in likelihood.

The findings from statistical analysis of hypotheses five, six, and seven, combined with previous research findings, indicate that burnout and job outcomes may have a reciprocal effect. The current findings also show that that burnout, above all other variables, has the greatest impact on job satisfaction and FBOP commitment indicating that it is most important for correctional administrators to focus on how to implement measures for preventing or reducing the onset of correctional staff burnout. Although, the statistical relationships of personal characteristics poses a concern in that correctional administrators cannot change policies to reduce the prevalence of certain personal characteristics without discriminating against those individuals. Therefore, it is important

for future research to further explore the relationships between personal characteristics, burnout, and job outcomes resulting from the PSCS dataset.

Limitations

The limitations of this study relate to the dataset used. The 2015 PSCS data is cross sectional, it contains questions adapted from the Maslach Burnout Inventory rather than using the MBI instrument itself, and the findings may not be generalizable to other correctional agencies. The cross-sectional nature of the data allows for analysis of a single year of employee attitudinal responses. The 2015 PSCS may not be representative of employee attitudinal responses across time and longitudinal studies are needed in order to show causality. Additionally, the purpose of the PSCS is to measure social climate rather than solely focus on burnout. Therefore, the PSCS includes measurements of burnout consistent with the MBI but, only using the MBI would not accomplish the broader goal of the FBOP. Lastly, all FBOP employees were included in the PSCS dataset: custody and non-custody. Therefore, the findings of this study may not be generalizable to other state correctional agencies which tend to define correctional staff as only those working in custody. The dataset allows for separation between custody and non-custody staff, which is addressed in the data management section, however, the current research study focuses on all federal correctional staff working in institutions as all employees are considered correctional officers.

Research, Theory, and Policy Implications

While not intended to measure burnout, this research demonstrates that the Prison Social Climate Survey is an appropriate source of data that can in fact be used in the assessment of burnout and to test the JD-R model and COR theory. The variables measured in the PSCS clearly fell within the constructs of organizational, operational, and traumatic stressors which allow for testing latent concepts such as burnout and job outcomes. The improvements to the PSCS over the last decade have resulted in a larger sample of respondents who are provided the full survey, rather than respondents receiving one of four shorter versions; this allows for more accurate and generalizable statistical analysis and that the PSCS is appropriate for continued research on burnout and job outcomes.

Based on the initial bivariate analysis, many of the demographic variables proved to have significant relationships with both burnout and the three job outcomes (job satisfaction, FBOP Commitment, and turnover). The demographic variables tested included gender, race, age, tenure, veteran status, educational level, job category, and frequency of inmate contact. Unlike much of the previous studies, all the demographic variables had significant relationships with burnout and the three job outcomes except for three: gender and turnover, and veteran status with burnout and FBOP commitment. As a result of the bivariate analysis significance, the demographic variables were included in the multivariate analysis in order to better specify the relationships.

Based on the multivariate statistical analysis, the seven original hypotheses in the current study are proven true. Compared to prior research on correctional burnout, the Federal Bureau of Prisons employees appear to experience burnout at rates towards the lower end of the percentage spectrum with 26% of respondents reporting symptoms of

burnout. But, the patterns and factors that influence burnout in the FBOP are similar to those found in city and state correctional systems. As tested in the first hypothesis, correctional employees exposed to heavier workloads and more dangerous conditions are more likely to experience symptoms of burnout. However, employees who report feeling a sense of supervisory quality, supervisory fairness, and staff camaraderie experience lower rates of burnout; indicating that these characteristics may serve as protective factors. These outcomes also coincide with the theoretical framework used in the current study (JD-R and COR) in that positive resources may moderate the effects of demands and thereby reduce the rates of reported employee burnout.

The reduced rate of burnout in the FBOP may be attributed to the original intent of developing a federal prison system in order to provide improved conditions for inmates and to centralize the administration and management of the correctional system. The inmate classification system implemented by the FBOP to identify and designate inmates based on security risk has contributed to increased safety for inmates and staff. The classification system allows for low risk inmates to be designated to camp or low security institutions while higher risk inmates are designated to medium and high security institutions.

As discussed in the literature review, the FBOP had created and implemented numerous programs and benefits for employees that remain consistent across all institutions within the federal system. While some states such as New York may offer a higher salary for correctional officers than the FBOP, research indicates that pay is not as significant in predicting burnout as other resources such as promotional potential, organizational fairness, proper training, and other benefits such as retirement pensions,

investment opportunities, medical benefits. As discussed in detail on page 30, additional FBOP programs that may assist in reducing burnout are the Employee Assistance Program, Co-Worker Emergency Fund, Voluntary Leave Transfer Program, Thrift Savings Program, Equal Employment Opportunity Counselors, Mentoring Program, monetary awards, and the implementation of fitness centers.

While the JD-R has faced criticism for not clearly categorizing demands and resources, its flexibility is ideal in that it allows the researcher to incorporate the variables that are available for testing; this is particularly helpful when using the PSCS data. The findings from the current study support the JD-R by indicating that job demands increase the likelihood of burnout and negative job outcomes (i.e., high turnover, low job satisfaction, and low FBOP commitment) while the availability of resources decrease the likelihood of burnout and negative job outcomes. The findings of the current study also support the COR theory in that burnout occurs as environmental conditions deplete resources. For example, the availability of resources may initially be plentiful but, as demands persist, it is more likely that resources are exhausted and the effects of burnout begin to appear. This relationship is important for correctional administrators to take note of as it indicates the importance of both providing resources to employees and minimizing long lasting demands in order to minimize the onset of burnout and negative job outcomes. As indicated in the regression analysis, job resources moderate the effects of demands but, the demands are still significantly related to burnout. Existing resources cannot be maintained and new resources cannot be acquired when demands and negative environmental conditions persist over time.

Similar to the relationship to burnout, exposure to more dangerous environments and heavier workloads reduce reported levels of job satisfaction and organizational commitment while increasing turnover intent. However, correctional employees who believe they have the authority to make duty related decisions in their daily work activities report higher levels of job satisfaction and organizational commitment with lower levels of turnover intention. These results indicate improved organizational resources may serve as protective factors against traumatic stressors that are commonly found in correctional environments. Decisional authority is an highly influential resources but, for administrators to confidently grant that authority to staff they must invest in properly training staff members to ensure they are well versed in policies and practices that influence daily decisions so that staff can make sound correctional decisions in accordance with agency policies.

In comparison to state and city correctional facilities, it appears that the federal prison system has excelled at investing in staff resources that extend beyond the normal pay and benefits. It may be the consistency of such resources that protects from higher rates of burnout. For instance, the many collateral programs that strengthen staff diversity and camaraderie, the ongoing mandatory and voluntary training opportunities, and the delegation of decisional authority to line staff are all valuable resources to staff. The federal system is also standardized in that all staff, regardless of state or institution, have the same opportunities to develop the available resources. This may explain why the rates of burnout are lower across the FBOP in comparison to the state correctional systems that vary widely regarding conditions for both staff and inmates, job demands, and available resources to protect against burnout.

Rather than testing the impact of job outcomes on burnout, as much of the previous correctional burnout research has done, this study tested the impact of burnout on job outcomes. Findings indicate that higher levels of burnout significantly and negatively impact employees' job satisfaction and organizational commitment while also increasing turnover rates. Additionally, Whites, males, and employees in custody report lower levels of job satisfaction. A more interesting outcome indicates that increased levels of inmate contact result in higher levels of organizational commitment; perhaps because working directly with inmates provides employees with a sense of directly impacting others in a positive way, leading to a sense of personal accomplishment which is the direct opposite of the third aspect of Maslach's (1976) definition of burnout.

While the results of the current study are similar to prior research in correctional burnout, they have allowed for a comparison between trends, an exploration of burnout using different predictors, and the testing of the impact of burnout on job outcomes. The current study also provides more current research on burnout in federal corrections; as the last study using the PSCS was conducted by Lambert in 2007.

The current study expands the research on correctional burnout by identifying the predictors of burnout and the relationship to three specific job outcomes in order to guide correctional administrators' efforts in developing and improving targeted interventions. Based on the findings, correctional organizations and administrators may conclude that certain interventions such as improving organizational, supervisory, and coworker support are most impactful in minimizing or reducing the development of correctional burnout among employees. Correctional agencies may use the findings of this research to

implement benefits and resources that improve employee job satisfaction and increase organizational commitment in an effort to reduce turnover rates.

Especially in the current era of mass incarceration, it is increasingly important to take notice of the effects of the correctional environment on those who work in it. While research and resources have been dedicated to reducing incarceration and improving correctional environments for those housed in them, there has been little focus on the long-term effects on the growing population of correctional employees. This study is an effort not only to expand the research on correctional burnout but, to hopefully draw attention to the issue and educate correctional administrators, employees, and policy makers.

There are several recommendations for future research on correctional burnout. Firstly, a wider body of research is necessary in order to bring the issue of correctional burnout to the attention of academics, researchers, and policy makers other than those already directly involved in, and impacted by, the matter. Corrections is an all too often forgotten aspect of law enforcement that does not draw mainstream research attention regarding the effects of employment on the employee as do the more traditional law enforcement roles such as police officers. Additional research to expand and saturate the field would not only draw attention to the prevalence of correctional burnout but, it could also influence policy makers and correctional administrators at all levels of city, state, and federal corrections.

Secondly, dangerousness is used in the current study as a measurement of a traumatic stressor. While it may not be feasible, comparison research between state and federal facilities regarding levels of danger should be studied in conjunction with burnout. This research could help to determine if the federal prison system has in fact created better

environmental conditions where staff and inmates feel safer and therefore staff experience lower rates of burnout. Additionally, future research should explore why there are such variations in burnout and job outcomes across correctional systems in different states and whether or not the centralized oversight implemented in the federal system is, or could be, effectively implemented at the state level. Furthermore, traumatic stressors are rarely included in studies regarding correctional burnout; dangerousness is the only traumatic stressor variable in the PSCS. Future studies that utilize researcher developed surveys should include multiple variables of traumatic stressors that measure primary, secondary, and tertiary forms of trauma.

Similar to the need for additional measurements of traumatic stressors, there is a need for burnout research to measure additional types of organizational commitment. Currently, burnout research generally measures only affective commitment which is defined as a positive psychological or emotional connection to the organization (Allen & Meyer, 1990). However, more studies should also measure continuance and normative commitment. Continuance commitment specifically may actually increase an employees' susceptibility to burnout since they employee is only committed to the agency because the loss of what they have invested (time, pension, and other benefits) would be too great. Therefore, an individual may feel pressured under continuance commitment to remain with an organization that they do not have a positive opinion of and are not affectively committed to.

Future research could also benefit the use of actual turnover measurements rather than turnover intent. While turnover intent is an acceptable measurement of turnover in correctional burnout, there are many reasons why employees leave, and even those who

intend to leave may end up staying with the organization. By using actual turnover data, researchers could separate voluntary from involuntary turnover, turnover from departing an institution or the entire organization, and specific reasons for separation. Employees within a year of mandatory retirement may report that they plan to leave the agency but, it is involuntary turnover rather than someone who leaves for other reasons. Using actual turnover would allow researchers to discern between types of involuntary turnover as well. For example, it is important to distinguish between someone required to retire due to age and someone fired for violating policies of the organization. Within the FBOP, employee turnover may be particularly high at certain locations due to a number of staff that promote up within the agency and transfer to other institutions within the agency. Therefore, turnover could be assessed at both an institutional level and on an organizational level. Other reasons for turnover that could be separated are medical issues or transfer outside of the agency but still within the law enforcement arena.

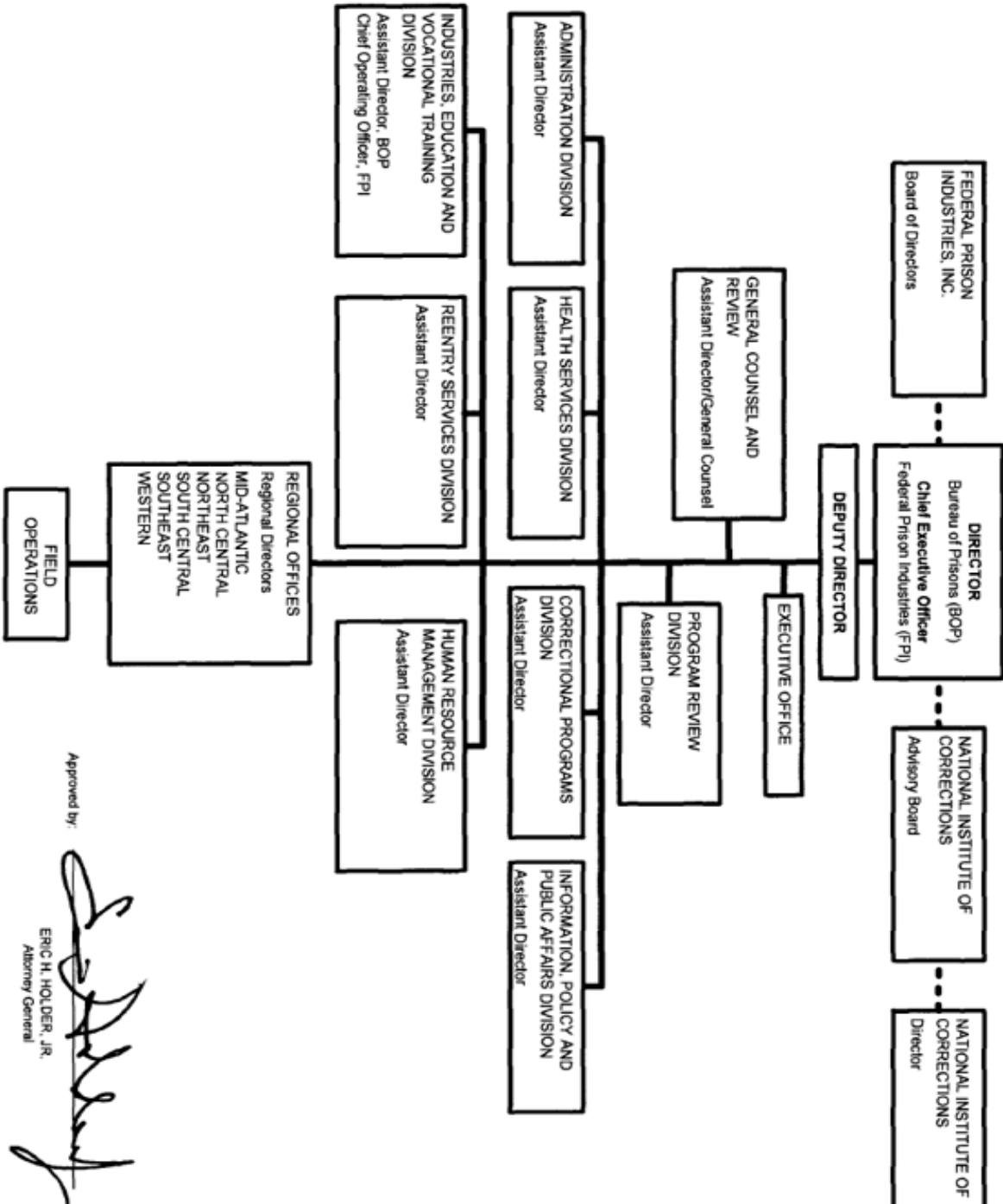
Current correctional burnout research utilizes cross-sectional datasets which limit the analysis and interpretation of the analysis. Therefore, future research should attempt to collect longitudinal data in order to assess the effects of burnout on job outcomes over time. The FBOP's PSCS is administered annually however, a new random sample of employees are selected each year to complete the survey. Therefore, any longitudinal research utilizing the PSCS is limited because the annual responses are not from the same employees across each year. But, multiple years could be analyzed to provide insight of general trends throughout the agency. For instance, political trends may significantly impact the operations of correctional facilities. In the current fiscal year (October 2017 through September 2018), federal correctional operations have been restricted due to a

hiring freeze issued by the president and the inability of the federal government to pass a formal budget until six months into the fiscal year. The hiring freeze has resulted in a greater impact to specific institutions that experience higher rates of turnover as it leads to quicker staffing deficits. The deficits then impact remaining staff through the assignment of additional duties and an increase in the workload of regular duties. Longitudinal studies may be able to determine how factors such as budgets and hiring freezes effect burnout and job outcomes.

Lastly, the majority of correctional burnout studies indicate that personal characteristics such as race, gender, and age are not significantly related to burnout or job outcomes. It is therefore important for future research to explore the findings of the current study that indicate significant relationships between several personal characteristics, burnout, and job outcomes. For example, the current study found that Whites, males, and employees in non-custody positions experience higher rates of burnout. However, it is unclear why these personal characteristics are associated with higher rates of burnout. Further research could help to determine such questions as to how whether or not employees in non-custody position experience higher rates of burnout due to working in a security environment or due to less role clarity. For example, a psychologist in the FBOP is also required to respond to emergencies, work custody posts, conduct and shakedowns.

Appendix A
FBOP Organizational Structure

FEDERAL BUREAU OF PRISONS



Approved by:

Eric H. Holder, Jr.
ERIC H. HOLDER, JR.
Attorney General

Date:

5/16/13

Appendix B 2017 General Schedule Pay Scale

SALARY TABLE 2017-NY
INCORPORATING THE 1% GENERAL SCHEDULE INCREASE AND A LOCALITY PAYMENT OF 31.22%
FOR THE LOCALITY PAY AREA OF NEW YORK-NEWARK, NY-NJ-CT-PA
TOTAL INCREASE: 2.58%
EFFECTIVE JANUARY 2017

Annual Rates by Grade and Step

Grade	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10
1	\$ 24,310	\$ 25,123	\$ 25,932	\$ 26,736	\$ 27,544	\$ 28,017	\$ 28,816	\$ 29,623	\$ 29,654	\$ 30,405
2	27,332	27,983	28,888	29,654	29,988	30,870	31,751	32,633	33,515	34,397
3	29,822	30,817	31,812	32,806	33,801	34,796	35,790	36,785	37,780	38,774
4	33,479	34,595	35,710	36,826	37,941	39,056	40,172	41,287	42,402	43,518
5	37,457	38,706	39,955	41,204	42,454	43,703	44,952	46,201	47,450	48,700
6	41,753	43,145	44,537	45,930	47,322	48,714	50,106	51,499	52,891	54,283
7	46,398	47,945	49,492	51,039	52,586	54,133	55,681	57,228	58,775	60,322
8	51,384	53,097	54,809	56,522	58,234	59,947	61,659	63,371	65,084	66,796
9	56,754	58,646	60,538	62,431	64,323	66,215	68,107	69,999	71,892	73,784
10	62,500	64,584	66,668	68,751	70,835	72,919	75,003	77,087	79,170	81,254
11	68,666	70,955	73,243	75,532	77,820	80,108	82,397	84,685	86,974	89,262
12	82,304	85,048	87,791	90,535	93,279	96,023	98,767	101,510	104,254	106,998
13	97,869	101,131	104,393	107,656	110,918	114,180	117,442	120,704	123,966	127,228
14	115,652	119,507	123,363	127,218	131,073	134,928	138,784	142,639	146,494	150,349
15	136,038	140,573	145,108	149,643	154,178	158,713	161,900 *	161,900 *	161,900 *	161,900 *

* Rate limited to the rate for level IV of the Executive Schedule (5 U.S.C. 5304 (g)(1)).

Applicable locations are shown on the 2017 Locality Pay Area Definitions page: <http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2017/locality-pay-area-definitions/>

Appendix C

List of Demands, Resources, and Outcomes

Job Demands

- Centralization
- Cognitive demands
- Complexity
- Computer problems
- Demanding contacts with patients
- Downsizing
- Emotional demands
- Emotional dissonance
- Interpersonal conflict
- Job insecurity
- Negative spillover from family to work
- Harassment by patients
- Performance demands
- Physical demands
- Problems planning
- Pupils' misbehavior
- Qualitative workload
- Reorganization
- Remuneration
- Responsibility
- Risks and hazards
- Role ambiguity
- Role conflict
- Sexual harassment
- Time pressure
- Unfavorable shift work schedule
- Unfavorable work conditions
- Work pressure
- Work-home conflict
- Work overload

Outcomes (negative)

- Absenteeism
- Accidents and injuries
- Adverse events
- Depression
- Determination to continue
- Unsafe behaviors
- Negative work-home interference
- Physical ill health

- Psychosomatic health complaints

Job Resources

- Advancement
- Appreciation
- Autonomy
- Craftsmanship
- Financial rewards
- Goal clarity
- Information
- Innovative climate
- Job challenge
- Knowledge
- Leadership
- Opportunities for professional development
- Participation in decision making
- Performance feedback
- Positive spillover from family to work
- Professional pride
- Procedural fairness
- Positive patient contacts
- Quality of relationship with supervisor
- Safety climate
- Safety routine violations
- Social climate
- Social support from colleagues
- Social support from supervisor
- Skill utilization
- Strategic planning
- Supervisory coaching
- Task variety
- Team cohesion
- Team harmony
- Trust in management

Personal Resources

- Emotional & mental competencies
- Extroversion
- Hope
- Intrinsic motivation
- Low neuroticism

- Need satisfaction
- Optimism
- Psychological strain
- Turnover intention

Outcomes (positive)

- Extra-role performance
- Innovativeness
- In-role performance
- Life satisfaction
- Organizational commitment
- Perceived health
- Positive work-home interference
- Service quality
- Team sales performance
- Workability
- Happiness

- Organization-based self esteem
- Regulatory focus
- Resilience
- Self-efficacy
- Value orientation

Note: Reprint from *A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health*, Schaufeli & Taris, 2016.

Appendix D
Prison Social Climate Survey Variables

PSCS Variable used in Current Study

Variable Name	Variable Description	Values/Range
Personal Characteristics		
Age	Age at last birthday	Continuous
Race	White Black Asian Native American Hispanic Ethnicity	(0) No (1) Yes (0) No (1) Yes (0) No (1) Yes (0) No (1) Yes (0) No (1) Yes
Gender	Sex of employee	(0) Male (1) Female
Tenure	Years worked for the BOP	Continuous
Veteran status	Veteran status	(0) No (1) Yes
Education level	Highest level of education attained	(1) Some high school (2) High school, degree (3) Technical training (4) Some college (5) Bachelor's degree (6) Some graduate work (7) Master's degree (8) Ph.D. degree (9) Advanced professional degree
Miscellaneous Variables		
Job Category	Which best describes where you work	(1) Computer services (2) Correctional services (3) Education/Vocational (4) Financial management

Inmate Contact

How often do you have contact with inmates

- (5) Food service
- (6) Human resources
- (7) Industries
- (8) Inmate services
- (9) Executive staff
- (10) Legal
- (11) Facilities
- (12) Medical (PHS)
- (13) Medical (non-PHS)
- (14) Other
- (15) Psychology
- (16) Recreation
- (17) Religious services
- (18) Safety
- (19) Unit management
- (0) Never
- (1) A few times
- (2) Once a month
- (3) A few times a month
- (4) Once a week
- (5) A few times a week
- (6) Every day

Work Characteristics

Dangerousness
(5 item scale)

I am bothered by frequency of inmate physical force
How safe is it for female staff with inmate contact
How safe is it for male staff with inmate contact
Security procedures are adequately protect staff
Executive staff take security very seriously

- (0) Very safe/strongly disagree
- (1) Safe/disagree
- (2) Somewhat safe/disagree
- (3) Undecided
- (4) Somewhat dangerous/agree
- (5) Dangerous/agree
- (6) Very dangerous/strongly agree

Job advancement
(8 item scale)

There are opportunities for females in BOP
There are opportunities for minorities in BOP
There are opportunities for females in this facility
There are opportunities for minorities in this facility
There are opportunities for males in BOP
There are opportunities for non-minorities in BOP
There are opportunities for males in this facility
There are opportunities for non-minorities in this facility

- (0) Strongly disagree
- (1) Disagree
- (2) Somewhat disagree
- (3) Undecided
- (4) Somewhat agree
- (5) Agree
- (6) Strongly agree

Supervisory fairness

Last evaluation was fair/accurate

- (0) Strongly disagree

(5 item scale)	<p>Fair performance evaluation standards</p> <p>Not afraid to inform supervisor of things wrong</p> <p>Supervisor is sensitive to personal needs</p> <p>Performance information is late/not useful</p>	<p>(1) Disagree</p> <p>(2) Somewhat disagree</p> <p>(3) Undecided</p> <p>(4) Somewhat agree</p> <p>(5) Agree</p> <p>(6) Strongly agree</p>
Supervisory support (5 item scale)	<p>Supervisor treats me with respect</p> <p>Supervisor cares about me</p> <p>Supervisor treats me fairly</p> <p>Supervisor talks to me professionally</p> <p>Supervisor responds to concerns</p>	<p>(0) Strongly disagree</p> <p>(1) Disagree</p> <p>(2) Somewhat disagree</p> <p>(3) Undecided</p> <p>(4) Somewhat agree</p> <p>(5) Agree</p> <p>(6) Strongly agree</p>
Supervision quality (4 item scale)	<p>Often receive supervisor feedback</p> <p>Supervisor engages me in process</p> <p>Supervisor give adequate performance information</p> <p>I know what my supervisor expects of me</p>	<p>(0) Strongly disagree</p> <p>(1) Disagree</p> <p>(2) Somewhat disagree</p> <p>(3) Undecided</p> <p>(4) Somewhat agree</p> <p>(5) Agree</p> <p>(6) Strongly agree</p>
Workload (5 item scale)	<p>My workload is manageable</p> <p>My department has enough staff</p> <p>Departmental staff effectively manage workload</p> <p>My work amount is unreasonable</p> <p>I feel overwhelmed by the amount of work</p>	<p>(0) Strongly disagree</p> <p>(1) Disagree</p> <p>(2) Somewhat disagree</p> <p>(3) Undecided</p> <p>(4) Somewhat agree</p> <p>(5) Agree</p> <p>(6) Strongly agree</p>
Decision authority	<p>I have the authority I need for work objectives</p>	<p>(0) Strongly disagree</p> <p>(1) Disagree</p> <p>(2) Somewhat disagree</p> <p>(3) Undecided</p> <p>(4) Somewhat agree</p> <p>(5) Agree</p> <p>(6) Strongly agree</p>
Coworker support (4 item scale)	<p>Department staff cooperate</p> <p>I like the people I work with</p> <p>Coworkers & I share job-related knowledge</p> <p>Coworkers & I work well together</p>	<p>(0) Strongly disagree</p> <p>(1) Disagree</p> <p>(2) Somewhat disagree</p> <p>(3) Undecided</p> <p>(4) Somewhat agree</p>

Burnout

I am emotionally drained at end of workday
 I am fatigued when I get up in the morning & have to face another day on the job
 I have become harsh toward people since taking job
 I worry this job is hardening me emotionally
 Working with people all day is really a strain for me

- (5) Agree
 (6) Strongly agree

Job Outcomes

Job Satisfaction
 (3 item scale)

My BOP job usually interests me
 My BOP job is usually worthwhile
 Most days I enjoy the work I do

- (0) Strongly disagree

- (1) Disagree

- (2) Somewhat disagree

- (3) Undecided

- (4) Somewhat agree

- (5) Agree

- (6) Strongly agree

Organizational Commitment
 (5 item scale)

Would recommend BOP
 Have good opinion of BOP
 BOP is run very well
 I'm usually satisfied with BOP
 I'm proud of working for BOP

- (0) Strongly disagree

- (1) Disagree

- (2) Somewhat disagree

- (3) Undecided

- (4) Somewhat agree

- (5) Agree

- (6) Strongly agree

Turnover

I intend to leave BOP in next year

- (-1) No

- (0) Yes

- (1) Unsure

- (1) Medical

- (2) Retirement

- (3) Family considerations

- (4) Supervisor dissatisfaction

- (5) Dissatisfaction with pay/benefits

- (6) Dislike working with inmates

- (7) Conflicts with coworkers

- (8) Dislike community/location

- (9) Returning to school

- (10) Changing careers

- (11) Other

Appendix E

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM) COURSEWORK REQUIREMENTS REPORT*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Erin Rogers (ID: 5061664)
- **Email:** erogers@jjay.cuny.edu
- **Institution Affiliation:** City University of New York (CUNY) (ID: 535)
- **Institution Unit:** Criminal Justice
- **Phone:** 917-687-7788

- **Curriculum Group:** HSR for Social & Behavioral Faculty, Graduate Students & Postdoctoral Scholars
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Investigators and staff involved primarily in Social/Behavioral Research with human subjects.

- **Report ID:** 17231140
- **Completion Date:** 09/11/2015
- **Expiration Date:** 09/10/2018
- **Minimum Passing:** 80
- **Reported Score*:** 99

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Belmont Report and CITI Course Introduction (ID: 1127)	09/10/15	3/3 (100%)
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	09/10/15	5/5 (100%)
History and Ethical Principles - SBE (ID: 490)	09/10/15	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	09/10/15	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	09/10/15	5/5 (100%)
Assessing Risk - SBE (ID: 503)	09/10/15	5/5 (100%)
Informed Consent - SBE (ID: 504)	09/10/15	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	09/10/15	5/5 (100%)
Research with Prisoners - SBE (ID: 506)	09/10/15	5/5 (100%)
Research with Children - SBE (ID: 507)	09/10/15	5/5 (100%)
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	09/10/15	5/5 (100%)
International Research - SBE (ID: 509)	09/11/15	5/5 (100%)
Internet-Based Research - SBE (ID: 510)	09/11/15	5/5 (100%)
Research and HIPAA Privacy Protections (ID: 14)	09/11/15	4/5 (80%)

CITI Program

Email: citisupport@miami.edu

Web: <https://www.citiprogram.org>

Appendix F CUNY IRB Approval Letter



University Integrated Institutional Review Board
205 East 42nd Street
New York, NY 10017
<http://www.cuny.edu/research/compliance.html>

Approval Notice Initial Application

03/29/2016

Erin Rogers,
John Jay College of Criminal Justice

RE: IRB File #2016-0347

An examination of organizational, operational, and traumatic stressors in relation to job burnout among correctional employees in order to address staff retention and job satisfaction.

Dear Erin Rogers,

Your Initial Application was reviewed and approved on 03/28/2016. You may begin this research.

Please note the following information about your approved research protocol:

Protocol Approval Period:	03/28/2016 - 03/27/2017
Protocol Risk Determination:	Minimal
Expedited Categor(ies):	, (5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis). (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt.), (7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

Please remember to:

- Use **the IRB file number** 2016-0347 on all documents or correspondence with the IRB concerning your research protocol.



University Integrated Institutional Review Board
205 East 42nd Street
New York, NY 10017
<http://www.cuny.edu/research/compliance.html>

- Review and comply with CUNY Human Research Protection Program [policies and procedures](#).

The IRB has the authority to ask additional questions, request further information, require additional revisions, and monitor the conduct of your research and the consent process.

If you have any questions, please contact:

Lynda Mules

212-237-8914

lmules@jjay.cuny.edu

Appendix G Federal Bureau of Prisons Research Approval



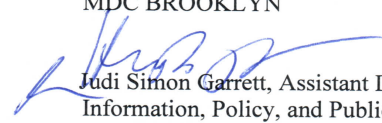
U.S. Department of Justice

Federal Bureau of Prisons

Washington, DC 20534
July 20, 2016

MEMORANDUM FOR ERIN ROGERS, REENTRY AFFAIRS COORDINATOR
MDC BROOKLYN

FROM:


Judi Simon Garrett, Assistant Director
Information, Policy, and Public Affairs Division

SUBJECT: Research Proposal

This is in response to your request to conduct a study, "An Examination of Organizational, Operational and Traumatic Stressors in Relation to Job Burnout among Correctional Employees in order to address Staff Retention and Job Satisfaction" at the Federal Bureau of Prisons. We have approved your request, and you are authorized to proceed with the study. This approval expires one year from the date of this memo.

This approval does not include approval to publish or present your results at a professional meeting or conference. Please follow the requirements in Program Statement 1411.01 Employee Speeches and Publications Review Process, (available on bop.gov) prior to any speech or publication based on this study.

When you complete the project, please send a final report to the Bureau's Research Review Board (BRRB). If you have not completed the project within the year, you must submit a progress report and request a project extension from the BRRB.

For any questions that arise or any unanticipated problems with the research, please contact Jody Klein-Saffran at (202) 305-4110.

cc: Herman Quay III, Warden, MDC Brooklyn

Appendix H
CUNY IRB Continuing Review Approval Letter



University Integrated Institutional Review Board
205 East 42nd Street
New York, NY 10017
<http://www.cuny.edu/research/compliance.html>

**Approval Notice
Continuing Review**

02/10/2017

Erin Rogers,
John Jay College of Criminal Justice

RE: IRB File #2016-0347

An examination of organizational, operational, and traumatic stressors in relation to job burnout among correctional employees in order to address staff retention and job satisfaction.

Dear Erin Rogers,

Your Continuing Review was reviewed and approved on 02/10/2017. You may continue the research.

Please note the following information about your approved research protocol:

Protocol Approval Period:	02/10/2017 - 02/09/2020
Protocol Risk Determination:	Minimal
Expedited Categor(ies):	(5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis). (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt.); (7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.);

Documents / Materials:



University Integrated Institutional Review Board
 205 East 42nd Street
 New York, NY 10017
<http://www.cuny.edu/research/compliance.html>

Type	Description	Version #	Date
Informed Consent/Permission Document	FBOP Approval of Research Letter	1	02/02/2017

Please remember to:

- Use **the IRB file number** 2016-0347 on all documents or correspondence with the IRB concerning your research protocol.
- Review and comply with CUNY Human Research Protection Program [policies and procedures](#). The IRB has the authority to ask additional questions, request further information, require additional revisions, and monitor the conduct of your research and the consent process.

If you have any questions, please contact:

Lynda Mules
 212-237-8914
lmules@jjay.cuny.edu

Appendix I
 FBOP IRB Continuing Review Approval Letter



U.S. Department of Justice

Federal Bureau of Prisons

Research Review Board
 320 First Street, NW
 400 Bldg, Room 3017

Washington, DC 20534

June 14, 2017

Erin Rogers
 MCC Brooklyn
 80 29th Street
 Brooklyn, NY

RE: Your email dated June 14, 2017 regarding study number 16-011: An Examination of organizational, operational, and traumatic stressors in relation to job burnout among correctional employees in order to address staff retention and job satisfaction

Dear Ms. Rogers:

Your request for continuing review of the study listed above was reviewed at the May 25, 2017, meeting of the Federal Bureau of Prisons Research Review Board. The requested continuation involves no changes to the protocol or consent form. This is to confirm that your request for continuation is approved.

You are granted permission to continue your study as described effective immediately. The study is next subject to continuing review on or before June 14, 2018, unless closed before that date.

As with the initial approval, changes to the study must be promptly reported and approved. Contact me (202-305-4110; fax 202-514-4232; email: jksaffran@bop.gov) if you have any questions or require further information.

Sincerely,

Jody Klein-Saffran, Ph.D.
 Human Subjects Protections Officer

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