

**AN INVESTIGATION INTO THE PREDICTORS OF BURNOUT AMONG  
ACCOUNTING PROFESSIONALS: A MULTIPLE REGRESSION ANALYSIS**

by

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## Abstract

The business world is changing fast, experiencing more far-reaching, global opportunities than ever before due to technology and the need for real-time information. A significant result of this growth is the emergent need for accounting professionals to enhance their skills in the workplace. Accounting professionals are now facilitators of strategy and transformation, where change implementation has become the expected role. This requires new sets of skills, additional training, and heavier workloads than ever before. However, under this work environment, the balance between job demands and available resources increases exposure to stress potentially leading to burnout. The research problem addressed in the study concentrated on the prevalence of burnout in U.S. accounting professionals and the exploration of areas in the work environment (i.e., areas of worklife) that may influence burnout. The majority of studies on burnout in the work environment has centered primarily on human service professions (e.g., medical field, nursing, education) and is largely unexplored among accounting professionals. The survey instruments used in the research study were the Maslach Burnout Inventory–General Survey and the Areas of Worklife Survey administered to SurveyMonkey Audience participants via an online survey. Of the 433 potential participants, 302 responded to the e-mail invitation and ultimately, 200 completed surveys were obtained for data analysis. The results of the research study verified that accounting professionals in the sample, at least to some degree, demonstrated an inconsistent burnout pattern by exhibiting low levels of exhaustion, high levels of professional efficacy, with high levels of cynicism. From a statistical standpoint, the findings were rather consistent with previous research and only the observed levels of cynicism varied from normative results.

Regardless, these findings underline the significance between the work environment and burnout, especially within the cynicism–reward relationship. In the end, the research study served to generate a more critical understanding of burnout among accounting professionals.

## **Dedication**

This dissertation is dedicated to my family for their everlasting support. To my parents, who encouraged me to reach for the stars. To my sisters, thank you for pushing me forward with courage when at the crossroads. To my beautiful wife Lisa and two lovely daughters, Kiley and Anaiya. You three are truly my success story and achieving this milestone is all because of you. To everyone who has made this dissertation possible, I thank you from the bottom of my heart.

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## CHAPTER 1. INTRODUCTION

### Introduction to the Problem

The business world is changing fast, experiencing more far-reaching, global opportunities than ever before due to technology and the need for real-time information. A significant result of this growth is the emergent need for accounting professionals to enhance their skills in the workplace. Why accounting professionals? According to D. J. Cooper and Morgan (2013), the influence accounting has on the economy and society is rather pervasive from resource allocation to operating efficiencies from capital needs to affecting culture and the environment. These authors stated specifically, “Accounting is clearly technical, but it is much more . . . since how and what we account for affects everyone in society; there is a ‘public interest’ at stake” (D. J. Cooper & Morgan, 2013, p. 418). As a result, employers have recognized the important role of accounting professionals in this new environment beyond technical reporting. In fact, the enduring perception that the professional accountant is only a ‘number cruncher’ is no longer an accurate representation. Accounting professionals are now facilitators of strategy and transformation, where change implementation has become the expected role. The bottom line is “accounting plays a prominent role in global economics” (Kennedy, 2013, p. 2). This requires new sets of skills, additional training, and heavier workloads than ever before (Ozkan & Ozdevecioğlu, 2013). However, under this work environment, the balance between job demands and available resources come into question.

Accountants may find their job demands far outweigh the resources to perform tasks efficiently or simply put, to do their job (Maslach & Jackson, 1981). As Ozkan and Ozdevecioğlu (2013) stated, “Factors such as punctuality, intolerance for mistakes, heavy workload, continuous changes in the regulations in force and the need for high level of concentration are working conditions which increase the level of stress in this profession [the accounting profession]” (p. 2786). This suggests continued exposure to stress in the work environment may lead to burnout (Hollett-Haudeberet, Mulki, & Fournier, 2011; Lewin & Sager, 2007). Therefore, the research problem addressed in the study concentrated on the prevalence of burnout in U.S. accounting professionals and the exploration of areas in the work environment (i.e., areas of worklife) that may influence burnout.

### **Background of the Study**

The burnout syndrome, as some have come to refer to the condition including Maslach and Jackson (1981); Shepherd, Tashchian, and Ridnour (2011); and Worley, Vassar, Wheeler, and Barnes (2008), is slowly growing in strength and expected to increase exponentially over the next 10 years (Nash, 2013). Burnout is a conceptual phenomenon first coined in the 1970s (Freudenberger, 1974). In his seminal work, Freudenberger (1974) described burnout from a conceptual standpoint that includes physical signs (e.g., exhaustion, fatigue) and behavioral signs (e.g., promptness of anger, immediate frustration). This is the seminal definition of burnout, but many have alternative interpretations. For example, Maslach and Jackson defined burnout as “a syndrome of emotional exhaustion and cynicism that occurs frequently among

individuals who do ‘people work’ of some kind” (p. 99). They further stipulated that a major component of burnout is emotional exhaustion.

On the other hand, Shirom (2003) defined burnout “as an affective reaction to ongoing stress whose core content is the gradual depletion over time of individuals’ intrinsic energetic resources” (p. 1). These resources may include emotional exhaustion, physical fatigue, and cognitive weariness (Shirom, 2003). The primary component that comes forth in these conceptual definitions of burnout centers on the concept of exhaustion, which has become the primary component of burnout in the literature (Densten, 2001; Ružić, 2013).

Burnout research has increasingly become a subject of interest in the academic field (Rupert, Miller, & Dorociak, 2015). From a research standpoint, the majority of studies on burnout have centered on human service professions (e.g., medical field, nursing, education; Daniels et al., 2013; Fernet, Guay, & Senécal, 2004; Gomes, Faria, & Goncalves, 2013; Taris, 2006). Nevertheless, burnout is a behavioral concept not unknown to the business world, especially in the accounting profession.

Burnout in accounting is a phenomenon found within the spectrum of behavioral accounting. Research within this subdiscipline has grown since the 1970s (Brown, 1981; Castellano & Roehm, 1977; Chow, 1983; Dent, 1991; Hofstedt & Kinard, 1970; Libby, 1979; Lord, 1989; Ozkan & Ozdevecioğlu, 2013; Pany & Reckers, 1980; Pasewark & Viator, 2006) and there are several recent literature reviews devoted to the subject behavioral accounting attempts to investigate the human element behind accounting (Balachandran, 1985). More specifically, behavioral accounting endeavors to understand the relationship between accounting, individuals, and the work environment (Angay &



Ersoy, 2010). Even though behavioral accounting has progressed as an important area of research, burnout on accounting behavior has yet to receive much focus. As Tugend (2013) commented, “Researchers say stress is to burnout as feeling blue is to clinical depression—a much more serious and long-term problem that doesn’t get the attention it should, but can affect all aspects of our lives and workplace” (para. 3). Accounting professionals are no exception to exhibiting burnout tendencies in the work environment.

Accountants of all types may experience burnout, which may initiate an abandonment of responsibilities, reduce job satisfaction, augment absenteeism, turnover, illness, and relegated quality (Eastman, 1996; Lackritz, 2004). As Kennedy (2013) postulated, “As people are accounting firms’ assets, it is therefore essential for accounting firms to know how to help retain their key employees to meet their business needs” (p. ii). The same holds true for accounting professionals from public to private organizations. Furthermore, a better understanding of how burnout affects those in the accounting profession may allow firms (both public and private organizations) to improve how they manage resources to relieve or mitigate the negative effects of burnout and augment employee work–life balance. Therefore, it is necessary to explore and discuss the likelihood of burnout and its antecedents (i.e., areas of worklife) among accounting professionals.

### **Statement of the Problem**

Professional accountants have become business partners, strategic decision makers, and overall leaders in the fast-paced economy. This has resulted in a heightened concern regarding their overall health and burnout tendencies (Nash, 2013; Ozkan &

Ozdevecioğlu, 2013), which might affect business performance. Accounting is the “language of business” (The Pathways Commission, 2012, p. 22) and is highly important to the business world. Accounting information leads to improved business decisions. As Drucker (2004) commented, “Making good decisions is a crucial skill at every level” (p. 61). However, with advancements in technology, globalization, new competition, and increased regulation, accounting professionals have become much more than technical information stockbrokers.

Burnout has become a growing epidemic and as Nash (2013) indicated, “Rising numbers of sufferers has ensured growing awareness and acceptance [of the condition] . . . and it is now recognised as a serious issue by many employers and employees” (para. 6). Therefore, the research problem addressed in the study concentrated on the prevalence of burnout among accounting professionals and to explore factors or areas in the work environment (i.e., areas of worklife) that may influence burnout. In other words, the research study explored antecedents of burnout within an accounting context.

### **Purpose of the Study**

The purpose of this quantitative, exploratory survey research study was to apply the conservation of resources (COR) theory to investigate the relationship between the six areas of worklife (workload, control, reward, community, fairness, and values) as defined by the Areas of Worklife Survey (AWS; Leiter & Maslach, 2000) and the three variables of burnout (exhaustion, cynicism, and professional efficacy) as measured by the Maslach Burnout Inventory–General Survey (MBI–GS; Schaufeli, Leiter, Maslach, & Jackson, 1996) among U.S. accounting professionals. The AWS measured the independent

variables of the areas of worklife. The MBI–GS instrument measured the dependent variables of burnout.

### **Rationale**

Burnout has become a growing concern not only from a psychological standpoint, but also from a global perspective. As Nash (2013) specified, the “burnout syndrome is a silent epidemic . . . and is predicted by the World Health Organization to become a global pandemic in the next decade” (para. 1). With the increase in market demands, the pressure of global business, the growth of technology, and the real-time needs of today’s organizations, burnout or in effect job burnout, has become an important consideration to meet business needs. The accounting professional is no stranger to the burnout phenomenon (Fogarty, Singh, Rhoads, & Moore, 2000; Guthrie & Jones, 2012; Herda & Lavelle, 2012).

There has been significant research investigating the relationship between the work environment and job burnout, but a dearth of knowledge exists within an accounting context. Job burnout has been linked to job outcomes including performance issues, lack of engagement and satisfaction, and increased turnover (Fogarty et al., 2000; A. Jones, Guthrie, & Iyer, 2012; A. Jones, Norman, & Wier, 2010). Therefore, a better understanding of the work environment on job burnout may help organizations improve on managing resources, namely employee well-being, and improve on mitigating the effects of the phenomenon.

## Research Questions

The research study concentrated on the following omnibus research question and research subquestion.

**Omnibus Research Question:** To what degree do the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey (AWS) explain the variability of burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey (MBI–GS)?

**Research Subquestion:** Is there a correlation between the six areas of worklife variables (workload, control, reward, community, fairness, and values) and burnout variables (exhaustion, cynicism, and professional efficacy) as measured by the AWS and MBI–GS, respectively?

## Significance of the Study

Accounting professionals are assets to an organization (just like any level of employee) and consequently, employee retention and well-being become fundamental considerations as organizations move forward in a global economy and assess strategy, resources, and other business needs (Kennedy, 2013). This notion holds true for accounting professionals in all types of companies from public to private organizations. A better understanding of how burnout affects those in the accounting profession will allow firms to improve on managing resources (namely human capital) and facilitate ways to lessen the negative effects of burnout.

Therefore, the intent of this current study was to contribute to the field of organization and management by investigating the relationship between the work environment and burnout among accounting professionals. More specifically, the research study was significant because it built upon and enhanced prior burnout studies through an application and understanding of the relationship between one's work environment and burnout through a theoretical/conceptual framework (i.e., COR theory). Moreover, by moving beyond investigating the three variables of burnout in seclusion (including exhaustion, cynicism, and professional efficacy), the investigation ascertained the influences of burnout as perceived and explored through specific areas of worklife (workload, control, reward, community, fairness, and values) as operationalized through the AWS.

While the MBI-GS alone provided a validated measure of burnout symptoms, the addition of the AWS facilitated a way to understand what influenced burnout in the workplace among accounting professionals. The opportunity to investigate the antecedents of burnout from an accounting perspective provided new insight into how burnout influences the performance of accounting professionals on the job and indicated possible ways of mitigating the burnout experience, improving worker performance, and ultimately enhancing business outcomes. Additionally, the research study assisted in understanding how the work environment influences the level of burnout beyond auditing and tax accounting areas. These areas have largely been unexplored in the literature, especially when combining the MBI-GS and AWS. The results will ultimately assist in improving employee productivity, employee retention, and perhaps the bottom line.

## Definition of Terms

**Accounting.** The information system that provides financial data from an organization's business activities during a given time period to interested parties including managers, board members, stockholders, and other related investors (W. T. Harrison, Horngren, & Thomas, 2015). Accounting is the process of providing information for decision-making purposes (Bragg, 2010; W. T. Harrison et al., 2015).

**Accounting professional.** Business professionals with experience from accounting technician (e.g., bookkeeper; Bragg, 2010) all the way to those individuals with professional designations (e.g., Certified Public Accountant [CPA]; Carey, 1968; Dirsmith, Covaleski, & Samuel, 2015; Yee, 2001) whether degreed or nondegreed.

**Areas of worklife.** Those areas or "organizational conditions" (Leiter & Maslach, 2004, p. 94) of the work environment that may have an effect on the burnout experience or engagement ultimately influencing business outcomes important to both the individual worker and the organization itself. The areas of worklife variables (including as the "demands and resource predictors" (Lee & Ashforth, 1996, p. 123) of the work environment.

**Burnout (or job burnout).** The construct of burnout (or job burnout) is defined as a heightened level of exhaustion where one is not able to perform work responsibilities due to a high level of cynicism about the value surrounding one's line of work and to a greater degree, self-doubt of one's ability to perform (i.e., lack of professional efficacy; Maslach, Leiter, & Jackson, 1996). As Leiter and Maslach (2004) indicated, burnout represents "a psychological syndrome of exhaustion, cynicism, and inefficacy [in the

research study, professional efficacy], which is experienced in response to chronic job stressors” (p. 93).

**Community.** The quality of an organization’s social support and collaboration in the work environment (Leiter & Maslach, 2011). A lack of community may be indicative of burnout (Leiter & Maslach, 2011).

**Control.** The chance to make decisions, including problem solving to fulfill one’s job responsibilities. A lack of control represents a poor job–person fit in the work environment (Leiter & Maslach, 2011).

**Cynicism.** An attitude and coping mechanism of exhaustion, which results in distancing oneself from work (Maslach et al., 1996). A high level of cynicism may be indicative of burnout (Maslach et al., 1996).

**Exhaustion.** A state of general fatigue due to overextension and feeling overly exhausted at work (Maslach et al., 1996). A high level of exhaustion may indicate the presence of burnout (Maslach et al., 1996).

**Fairness.** The magnitude of “consistent and equitable rules for everyone” (Leiter & Maslach, 2011, p. 8). A low level of fairness in the work environment may lead to incidences of burnout (Leiter & Maslach, 2011).

**Professional efficacy.** One’s expectations and self-assessment of work effectiveness (Maslach et al., 1996). More specifically, professional efficacy concentrates on how good one feels about their work and how well they are doing. A low score of professional efficacy may be representative of burnout (Maslach et al., 1996).

**Reward.** The recognition one receives through contributions in the work environment (Leiter & Maslach, 2011). A low level of reward may be indicative of job burnout (Leiter & Maslach, 2011).

**Values.** Those ideals that are important to both the organization and its employees (Leiter & Maslach, 2011). A work environment with high values may exhibit an absence of the burnout condition (Leiter & Maslach, 2011).

**Workload.** The amount of work to be completed over a certain time period (Leiter & Maslach, 2011). A consistent, sustainable workload signals belonging and an absence of burnout (Leiter & Maslach, 2011).

### **Assumptions and Limitations**

Similar to research studies in general, this exploration did not exist without some assumptions and limitations regarding the theoretical framework, the topic of burnout and the work environment, methodology, and statistical tests used in the data analysis.

#### **Theoretical Assumptions**

This quantitative, nonexperimental research study proposed the COR theory would help yield beneficial information for employers and accounting professionals regarding burnout and the work environment. More specifically, the focus on the resource side of the employee worklife would reveal useful and timely information to help mitigate the burnout experience. Another theoretical assumption centers on the concept of “resource loss” (Gorgievski & Hobfoll, 2008, p. 3). In general, resource loss is an event or happening people try to avoid at great risk (Gorgievski & Hobfoll, 2008).



COR theory concentrates on how individuals attempt to mitigate resource loss (Gorgievski & Hobfoll, 2008; Shirom, 2003) and maximize resource gain (Gorgievski & Hobfoll, 2008). As Gorgievski and Hobfoll (2008) stipulated,

Burnout is the end state of a long-term process of resource loss that gradually develops over time depleting energetic resources . . . whereas engagement is the resultant of the inverted process of real or anticipated resource gain *enhancing* energetic resources. (p. 3)

Therefore, resource loss was an important concept within the burnout phenomenon.

These theoretical assumptions, however, may limit the knowledge obtained using resource theoretical frameworks employed in burnout research such as the job–fit model and the job demands–resources model.

### **Topical Assumptions**

The research study solely concentrated on the level of burnout among accounting professionals and potential influences (or antecedents) of the work environment that may influence the condition. The study, however, did not explore the concept of stress in general. Additionally, only a limited number of demographic variables were engaged in the research study (e.g., age, gender, race, type of industry you work in, job title, number of years of experience, the region where you work, marital status, level of education) and considered valid in terms of answering the omnibus research question and research subquestion.

Another topical assumption surrounding the research study was the conjecture of a gap within the behavioral accounting literature on burnout. Based on the literature review, no such investigations were located linking burnout (as measured using the MBI–GS and work environmental factors (as gauged by the AWS) for accounting

professionals. An exhaustive search on burnout and the areas of worklife were performed within scholarly journals such as *Accounting Horizons*; *Accounting, Organizations and Society*; and *Work & Stress*, among others.

### **Methodological Assumptions**

The research study incorporated a quantitative, nonexperimental multiple regression analysis research design. Quantitative studies stem from the worldview of postpositivism where “the knowledge that develops . . . is based on careful observation and measurement of the objective reality that exists ‘out there’ in the world” (ontological assumption; Creswell, 2009, p. 7). In this sense, one poses a research question (or hypotheses) they want to answer through scientific and objective means (i.e., in the course of data collection using instruments and statistical analysis; epistemological assumption). The strength of this philosophic worldview comes from its reduced variability on bias due to the primary belief in a singular reality (Creswell, 2009). On the other hand, a serious side effect of postpositivism is the lack of understanding the human component within social interaction (i.e., the qualitative strand). As such, a more pragmatic approach might be to combine both quantitative and qualitative paradigms into a mixed methods examination to provide an all-inclusive or holistic account of the phenomenon under study (Bryman, 2006; Creswell & Clark, 2011). A mixed methods investigation may have provided some additional meaningful results. However, due to time and cost constraints, a mixed methods research study was not plausible.

Some additional methodological assumptions surrounded research participants. These assumptions included expectations that participants were active in their reality, maintained a mental record of the phenomenon under investigation, experienced burnout,

and completed the online survey as themselves (Isabella, 1990). These participant assumptions lead to the assumption of honesty, specifically centering on the validity and reliability of the data. Participant responses may not demonstrate similar validity and reliability levels as compared to normative and other research studies presented in the burnout literature. This not necessarily a negative research result, but there is always room for differences. This assumption reflects similar assumptions within research studies found in the literature.

The final methodological assumption highlighted the importance of experience in the final sample. More specifically, the sample included participants with a variety of experiences from different industries of varying size. The goal was to obtain research participants with varied experience as opposed to a single-set group. The more variety in the sample, the greater the likelihood of obtaining a more holistic picture of the burnout experience among accounting professionals and the opportunity to explore diverse perceptions of the work environment that may have contributed to the levels of burnout experienced in the sample. The more range in the sample, the less likelihood of reaching erroneous conclusions regarding the relationships between the predictor and criterion variables (Passer, 2014).

### **Statistical Assumptions**

W. P. Jones and Kottler (2006) maintained statistical assumptions require clarification before a final decision determines the specific statistical test used for a research study. Moreover, violating these assumptions can drastically change how the results are interpreted (Mertler & Vannatta, 2004). Multiple regression involved the following six assumptions: (a) random sampling (Nolan & Heinzen, 2014), (b) survey

data existed at the interval level (Baker, Hardyk, & Petrinovich, 1966; Labovitz, 1967; Sullivan & Artino, 2013), (c) linearity (i.e. the variable measurements exhibited linear behavior; Laerd Statistics, 2013; Nolan & Heinzen, 2014), (d) measurement reliability (i.e., consistency between the variables of interest and survey instrument; Laerd Statistics, 2013; Nolan & Heinzen, 2014), (e) homoscedasticity (i.e., the sample derives from a population of similar variance; also referred to as the homogeneity of variance; Laerd Statistics, 2013; Nolan & Heinzen, 2014), and (f) and normality (i.e., the data conforms to a normal distribution; Laerd Statistics, 2013; Nolan & Heinzen, 2014).

The central limit theorem dictates that large samples tend to exhibit normality or normal behavior. However, the research study incorporated a sample size of 206 participants, which exceeded the deemed minimum requirement for statistical assumptions under a parametric lens (Berenson, Levine, & Krehbiel, 2006). Nevertheless, external validity was still a necessary consideration even with a small sample size (Leedy & Ormrod, 2005). In addition, statistical significance (i.e., the degree to which the actual results vary from the null hypotheses) was set at  $p < .05$ . This level was assumed as an optimal threshold for significance given the nature of the research study and the sample size.

The final statistical assumption surrounds the issue of multicollinearity. Multicollinearity represents an extensive correlation among independent or predictor variables (Berry, 1993; Marill, 2004; Poole & O'Farrell, 1970). When correlation is high among predictor variables, determining the influence of the predictor variables on the dependent variables becomes rather difficult (i.e., very hard to separate the effects of each predictor variable; Garson, 2015). As a result, multicollinearity was an important

consideration in the multiple regression analysis for the combined influence of predictor and controlling variables. Both the tolerance statistic and the variable inflation factor (VIF) helped assess multicollinearity among the predictor variables.

### **Limitations**

In quantitative research, limitations represent weaknesses in the research design of the study (Creswell, 2009). As a result, limitations may have an effect on the results and there are limitations to the research study. One limitation centered on research participants who met the inclusion criteria. The research study was limited by the willingness of individual participation, participants' experience in completing online surveys, the ability of participants to comprehend the purpose and objectives of the investigation, and the honesty of participant responses without bias. More specifically, responses made by research participants were representative of their true feelings (or perceptions) related to the worklife environment as accounting professionals. However, due to the process surrounding sample selection and survey delivery, control over participant responses was limited.

Another limitation of the research study focused on the generalizability or external validity of the findings. In general, the transferability or generalizability of research findings depends on the trustworthiness, background, and experience of participants along with the handling of statistical data. As stated previously, participant honesty represents a limitation. Another influence on external validity centered on the use of a self-reported designation of burnout based on a random sample of SurveyMonkey Audience volunteers. Even though SurveyMonkey claimed a random sample, this does

not completely guarantee the sample is representative of the U.S. population of accounting professionals.

Moreover, in regards to sample selection, the research study may have been limited by the size of the sample (i.e., 206 Audience volunteers). Was the sample size large enough to help answer the omnibus research question, research subquestion, and hypotheses? Even though the central limit theorem supports the sample size of the study from a statistical standpoint, the sample may not represent all accounting professionals in the United States. The specificity of the sample such as focusing solely on U.S. accounting professionals not separated by industry or company, the potential administering difficulties in disseminating the online survey, and bias are other generalizability concerns. Additionally, the purpose of the study concentrated on evaluating potential relationships between the areas of worklife and burnout and not causality. This latter limitation influences internal validity. These factors all play a part in the reduced generalizability of the research findings (Leedy & Ormrod, 2005).

### **Conceptual Framework**

The theory used to help explain the reasons behind potential relationships between burnout and the areas of worklife factors was the COR theory (Alarcon, Edwards, & Menke, 2011; Hobfoll, 1989; Niebusch, 2012). The conceptual framework applied in the research study is presented in Figure 1.

In general, stress results in the loss of resources (Niebusch, 2012) and the six areas of worklife (workload, control, reward, community, fairness, and values) represent “job stressors that contribute to burnout” (Leiter & Maslach, 2011, p. 12). In the research

study, however, these job stressors were explored from a resource perspective. In fact, the AWS variables are often referred to as the “demands and resource predictors” (Lee & Ashforth, 1996, p. 123) of the work environment. As a result, COR theory was employed to help understand the link between the predictor and criterion variables within the perspective of resource loss.

### **Organization of the Remainder of the Study**

Chapter 2 examines in detail the literature reviewed for the research study. The chapter incorporates a discussion of the burnout construct (exhaustion, cynicism, and professional efficacy), reviews theoretical positions of burnout, describes burnout from an organizational perspective concentrating on the six areas of worklife (workload, control, reward, community, fairness, and values) as antecedents to the burnout condition, and connects COR theory to both burnout and the areas of worklife variables. Furthermore, the chapter includes a review of the literature surrounding the quantitative methodology and the chosen instruments for data collection.

Chapter 3 moves beyond the literature to outline the methodology used in the investigation reiterating the purpose of the research study, the research design, the target population, the recruitment and selection process, data analysis plan, ethical considerations surrounding the investigation, and expected findings. Chapter 4 includes a discussion of the results of the statistical analyses. Finally, Chapter 5 combines the literature and findings of the research study and implications towards research and practice, including limitations and recommendations for further and future research.

## Conceptual Framework

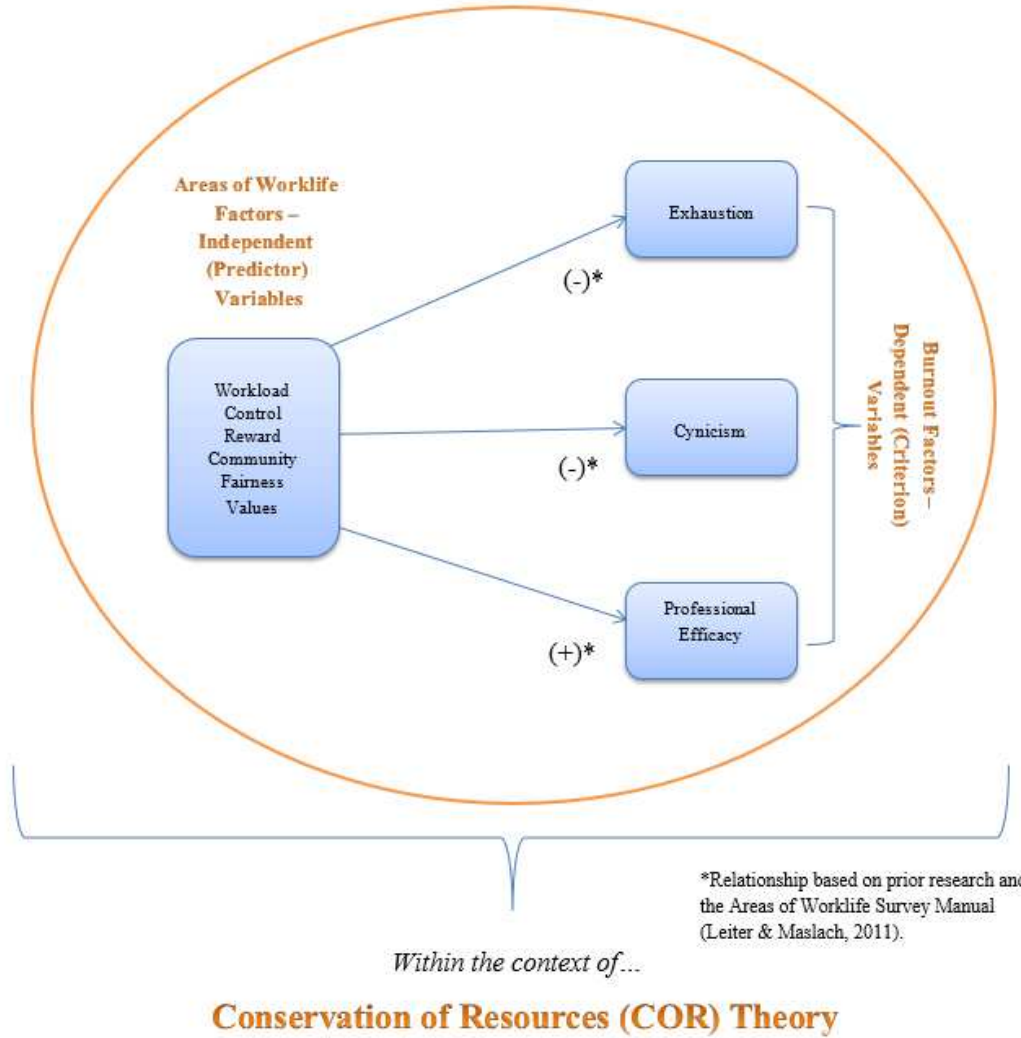


Figure 1. Conceptual framework.



## CHAPTER 2. LITERATURE REVIEW

### Introduction

The phenomenon of burnout is a multidimensional concept studied extensively throughout the literature in various occupations from human service areas to accounting professionals. Since the study focused on burnout and the areas of worklife from an accounting professional standpoint, the literature review presented in this chapter first highlights burnout from a high-level perspective covering the makeup of the phenomenon itself (e.g., the historical side of burnout, consequences of the phenomenon) followed by a discussion of the three variables of burnout as measured by the MBI-GS including exhaustion, cynicism, and professional efficacy. The next section centers on the work environment, especially the identification and influence of the six areas of worklife on burnout as gauged by the AWS. Next, information on the accounting profession is presented followed by a discussion of the theoretical foundation, COR theory. The final sections highlight burnout in the accounting profession, provide a brief overview of the methodology, including the instrumentation used, and concludes with an overall summary of Chapter 2.

### Burnout

Freudenberger (1974) viewed burnout as a chronic condition that emanated from the individual person. This definition eventually changed to treat burnout as “a state of

fatigue or frustration brought about by devotion to a cause, a way of life, or a relationship that failed to produce the expected rewards” (Freudenberger & Richelson, 1980, p. 13). Burnout is considered to include emotional exhaustion (or exhaustion; referring to a lessening of an individual’s emotional resources), depersonalization (or cynicism; referring to a negative feeling of detachment from work), and personal accomplishment (or professional efficacy; referring to the feeling of ineptitude or the ineffectual ability to produce value at work; lack of self-confidence; Schaufeli et al., 1996; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). In everyday vernacular, the meaning of burnout appears synonymous or interchangeable with the term stress. However, these concepts are quite distinct and this difference is important to understand because stress is not burnout and vice versa. The purpose of the research study highlights the burnout phenomenon, which is normally the result of prolonged stress. A generic comparison is presented in the following paragraph to differentiate both concepts.

Burnout appears to evolve from stress itself (Pines & Keinan, 2005) and alternative definitions related to the cause of burnout make this point. Maslach, Schaufeli, and Leiter (2001) defined burnout as a long-term problem resulting from an elongated reaction to affective and social stressors and pressures in the work environment. Similarly, Hobfoll and Shirom (2000) surmised burnout was a direct result of experiencing chronic job stress. Additionally, C. L. Cooper, Dewe, and O’Driscoll (2001) viewed burnout from a comparable perspective whereas Schaufeli and Enzmann (1998) entertained the notion burnout is a consequence of work environment stress related to job demands. Moreover, chronic occupational stress has been labeled “the putative cause of burnout” (Bianchi, Laurent, Brisson, & Schonfeld, 2015, p. 353). This impression further

supports the view that burnout may exist as a subsection of stress (Francis, Hills, & Kaldor, 2009; Pines & Keinan, 2005). Childs and Stoeber (2012) emphasized the concept of burnout has evolved into a highly researched outcome of persistent and grave stress among varying occupations, including in academic settings among students. Regardless of the specific perspective, stress appears to be the forerunner to the burnout condition.

The burnout condition negatively influences organizations, employees, and customers leading to poor business outcomes. On a more individual level, burnout has been linked to health issues (e.g., depression, insomnia), pessimism towards work and self, employee turnover and absenteeism, substance abuse, compulsive behavior, and marital and family issues (Hakanen, Schaufeli, & Ahola, 2008; Maudgalya, Wallace, Daraiseh, & Salem, 2006; Schaufeli, Bakker, van der Heijden, & Prins, 2009; Schaufeli et al., 1996; Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003). The product of prolonged stress is burnout and the more that stress does endure the greater possibility of occurrence (Henley, 2009). This conceptual understanding and consequences of burnout are the direct result of burnout investigations over the past 30 years (Maslach, Leiter, & Jackson, 2012).

### **Historical Perspective**

Burnout is a complex, multifaceted phenomenon that came to the forefront of behavioral and psychological research in the early 1970s. The pioneers of burnout were most notably Herbert Freudenberger (1974), a psychiatrist who focused on burnout from an intrinsic perspective (and stressors) and Christina Maslach (1976), a social psychologist who concentrated on external stressors to the condition. In his seminal work, Freudenberger described burnout from a conceptual standpoint centering on physical

signs (e.g., exhaustion, fatigue) and behavioral signs (e.g., promptness of anger, immediate frustration). He further commented that burnout is more common in individuals who are more “dedicated and committed” (Freudenberger, 1974, p. 161) and more likely to “walk into a burn-out trap” (p. 161). In essence, Freudenberger viewed the concept of burnout and its effect on the individual person.

While Freudenberger (1974) asserted burnout arises from the individual person, Maslach (1976) believed burnout existed as a chronic condition that emanates from the work environment. She concentrated on interviews of human service professionals to help describe how job stressors influence burnout. How an individual can cope with on-the-job stressors adds weight to the burnout condition (Maslach et al., 2001). In other words, variations in coping mechanisms may have significant implications for the individual person and his/her demonstrated behavior in the work environment (Maslach et al., 2001). This understanding of the burnout phenomenon led to the development of the Maslach Burnout Inventory (MBI), which is considered the primary instrument for burnout diagnosis (Cox, Tisserand, & Taris, 2005; De Silva, Hewage, & Fonseka, 2009; Phronebarger, 2014).

Both Freudenberger (1974) and Maslach (1976) performed investigations that advanced the burnout phenomenon, however, the majority of the early research on burnout came from qualitative investigations of human service professionals employing interviews, case studies, and observations to assist with understanding experiences behind the phenomenon (Phronebarger, 2014). Initially, burnout was considered a human service issue due to emotional engagements with clients and overarching demands (Kalimo, Pahkin, Mutanen, & Toppinen-Tanner, 2003; Maslach & Jackson, 1981). Nevertheless,

as Maslach et al. (2001) and Kalimo et al. (2003) stipulated, the work environment may play a greater role in burnout outside of human service professions. Kalimo et al. indicated, “However, it became evident over the years that burnout may develop in all kinds of work situations where the coping resources of individuals are exceeded” (p. 110). This led to the examination of burnout among other occupations (e.g., Fogarty et al., 2000; Kalbers & Fogarty, 2005; Lindblom, Linton, Fedeli, & Bryngelsson, 2006; Ružić, 2013; Schaufeli & Enzmann, 1998; Toppinen-Tanner, Kalimo, & Mutanen, 2002), not just human service professionals and education (Kalimo et al., 2003). The following section discusses burnout in detail from a more theoretical standpoint.

### **Burnout Construct and Measures**

**The burnout construct.** Freudenberger (1974) believed burnout was a condition that manifests from within the individual and defined by individual behavior to chronic stressors. Additionally, burnout represented a feeling of being worn out or a state of exhaustion as a direct result of high demands with limited resources (Freudenberger, 1974). More specifically, burnout stemmed from the individual and from those people with excessive demands and wants. Freudenberger stipulated burnout evolved from the pressure of the human service environment, whereby personal resources give way to a system breakdown. The important things to note about Freudenberger’s point of view is that burnout usually sneaks up on a person and therefore, goes unnoticed. While burnout may commence from within, another competing thought surrounding the burnout phenomenon is that burnout is extrinsically motivated and may emanate from the work environment. This was largely Maslach’s (1976) primary belief and contention.

Maslach and Jackson (1981) defined burnout as a condition of emotional exhaustion and cynicism encompassing individuals within human service vocations. They further commented a major component of burnout surrounds emotional exhaustion. They viewed human service vocations as “people work” (Maslach & Jackson, 1981, p. 99), which from their perspective, generally means burnout may occur in almost any professional vocation including and beyond human service occupations. More specifically, burnout represents a consequence of the fast-paced work environment people have grown accustomed to over time.

Due to the growth in globalization, advancements in technology, and the greater focus on an organization’s bottom line, burnout has resulted in what Maslach and Leiter (1997) called the “erosion of engagement” (p. 23) with the job, including an “erosion of emotions” (p. 23) resulting in a poor job–person fit. Ultimately, an erosion of engagement leads to a disengaged employee where anxiety and depression replace the eagerness to learn and enjoyment on the job as a direct consequence of the work environment (Maslach & Leiter, 1997). As in employee layoffs, for example, this process may lead to a lack of employee trust and commitment to the organization resulting in an incongruity with the work environment or a low job–person fit (Cascio & Aguinis, 2011). Cascio and Aguinis (2011) stipulated, “At the level of society, massive layoffs may contribute to high levels of cynicism within a nation’s workforce” (p. 49). Thus, the job–person fit decreases as burnout comes to the forefront.

From the perspective of job–person fit, burnout derives from the breakdown of the six areas of worklife factors as defined by Leiter and Maslach (2000). The six areas of worklife include workload overload, lack of control on the job, a failed reward system,

little to no sense of community or social relationships within the work environment, unfair or inequitable treatment among and between employees, and an overall mismatch between individual and organizational values (Leiter & Maslach, 2000). Phronebarger (2014) suggested job demands affect worker productivity and the potential imbalance influences performance in the work environment. Therefore, a reciprocal continuum results leading to burnout. Therefore, it makes sense that burnout may in fact be characterized as a product of the work environment.

Some additional thoughts on the burnout phenomenon link burnout to the loss of energetic resources. For example, Shirom (2003) surmised burnout is more of an emotional reaction to prolonged stress as a direct result of depleting individual energetic resources over time such as emotional exhaustion, physical fatigue, and cognitive weariness. According to Edelwich and Brodsky (1980), burnout corresponds to a loss of purpose paralleling a lack of energy. Malakh-Pines, Aronson, and Kafry (1981), however, perceived burnout from a state of exhaustion, including physical, mental, and cognitive exhaustion. Sarros and Densten (1989) viewed burnout as a defective coping mechanism to a work environment encapsulated by stress, heavy working demands, or simply lacking challenge and proper recognition of one's efforts. The primary component that comes forth in these conceptual definitions of burnout surrounds the concept of exhaustion. As Tugend (2013) commented, "Researchers say stress is to burnout as feeling a little blue is to clinical depression—a much more serious and long-term problem that doesn't get the attention it should, but can affect all aspects of our lives and workplace" (para. 3). Exhaustion has been coupled with low levels of job performance, citizenship behavior, and customer satisfaction (Childs & Stoeber, 2012; Taris, 2006).

**The burnout measures.** The construct of burnout is defined as a heightened level of exhaustion where one is not able to perform work responsibilities due to a high level of cynicism about the value surrounding one's line of work and to a greater degree, self-doubt of one's ability to perform (Maslach et al., 1996). This self-doubt represents the lack of professional efficacy in the burnout literature. As Leiter and Maslach (2004) indicated, burnout represents a mental, psychological syndrome of exhaustion, cynicism, and lower professional efficacy, as a direct consequence of chronic stress in the workplace. The burnout construct consists of three variables including exhaustion, cynicism, and professional efficacy and each variable needs to be assessed individually (Maslach et al., 1996; Phronebarger, 2014) to ascertain levels of burnout.

### **Work Environment**

The work environment represents the situational context of one's worklife. It is the environment where resources are provided, help is offered, and communication runs almost 24/7 in some cases. Furthermore, the work environment is a social environment of interaction and knowledge transfer where ideas and the chain of command flourish. This environment is also one of stress, continuous demand, and ultimately the burnout condition. There has been quite a history of research and job-person fit models designed specifically for understanding the relationship between one's work environment and burnout as a behavioral phenomenon (Leiter & Maslach, 2011). One such job-person fit model called the AWS developed by Leiter and Maslach.

Due to the need for a broader, contextual influence on the burnout condition (Leiter & Maslach, 2011), the AWS incorporates this contextual focus and additionally



concentrates on six areas of worklife (workload, control, reward, community, fairness, and values). The authors suggested the AWS “focus[es] . . . on the enduring working *relationship* that people have with their job” (Leiter & Maslach, 2011, p. 2) while assessing the work environment’s influence on the burnout condition or the overall job–fit scenario.

Leiter and Maslach (2004) explained the areas of worklife as those areas or “organizational conditions” (p. 94) of the work environment that may have an effect on the burnout experience or engagement. These areas ultimately influence business outcomes important to both the individual worker and the organization itself. The areas of worklife aid in facilitating a way to understand the job–fit scenario in regards to the burnout phenomenon (Leiter & Maslach, 2011). More plainly, the areas of worklife variables help understand the equivalence between the person on the job and the work environment (Leiter & Maslach, 2011). However, burnout research further views the areas of worklife as those “demands and resource predictors” (Lee & Ashforth, 1996, p. 123) of the work environment. This latter definition represents the resource view of the areas of worklife.

The workload factor, however, is influenced by the amount of available resources and an important antecedent of burnout particularly surrounding the exhaustion variable (Al-Imam & Al-Sobayel, 2014). If resources have been reduced, threatened, or simply depleted to the point of not meeting demands or specific business outcomes, burnout may result (Reinardy, 2013). In burnout studies incorporating the AWS (e.g., Gregory & Menser, 2015; L. Lawson, 2011; Leiter & Maslach, 2004; Vittoria, 2011), the six independent variables were found to influence burnout (Vittoria, 2011). The AWS

variables include workload, control, reward, community, fairness, and values. Both burnout and the areas of worklife were investigated under the conceptual framework of the COR theory.

### **Conservation of Resources Theory**

Within the organizational behavior literature, COR theory has become one of the most commonly mentioned theoretical or conceptual frameworks (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). COR theory is a motivational theory that stipulates when motives are endangered or refused, stress follows and comes to the forefront (Hobfoll & Freedy, 1993). This theory's central concept is resource loss, which simply refers to individuals with high resources will most likely avoid burnout than those who have fewer resources (Alarcon et al., 2011; Hobfoll, 1989). Hobfoll (1989) specified resources represent "objects, personal characteristics, conditions, or energies that are valued by the individual . . . [resources include] mastery, self-esteem, learned resourcefulness, socioeconomic status and, employment" (p. 516). Resources that individuals may value include both concrete and abstract structures including food, shelter, self-worth, self-esteem, work, promotional prospects, family and marriage, finances, skills, culture, and physical and mental energies (Alvaro et al., 2010; Park, Jacob, Wagner, & Baiden, 2014; Westman, Hobfoll, Chen, Davidson, & Laski, 2005). Resources related to the work environment can be categorized as psychosocial work factors (e.g., work content, work demands, social support) that are important considerations in ascertaining the burnout condition (Lindblom et al., 2006).

An important note about the concept of resources is they vary between individuals and largely depend on personal experiences (Halbesleben et al., 2014). Furthermore, resources are value-added elements that may institute change and aid in the acquisition of supplementary resources (Alvaro et al., 2010). As Campbell, Perry, Maertz, Allen, and Griffeth (2013) indicated, “Resources are those objects, conditions, energy, or personal characteristics that enable employees to accomplish goals and protect personal well-being” (p. 760). These resources may include control (Day, Sibley, Scott, Tallon, & Ackroyd-Stolarz, 2009; Heaney, Price, & Rafferty, 1995; Lindblom et al., 2006), social support (Bakker, Albrecht, & Leiter, 2011; Fernet, Gagné, & Austin, 2010; Heaney et al., 1995; Lindblom et al., 2006), values (Lindblom et al., 2006), and coping strategies such as family time, sense of humor, and self-awareness (Gupta, Paterson, Lysaght, & von Zweck, 2012).

COR theory stipulates three stressful events may lead to burnout. These stressful events may occur when an individual (a) loses resources, (b) becomes threatened with resource loss, and/or (c) fails to acquire resources after a significant resource investment (Gorgievski & Hobfoll, 2008; Shirom, 2003). Along with resource loss, COR theory contends that individuals have an inherent motivation “to obtain, retain, and protect that which they value” (Shirom, 2003, p. 9). Therefore, when stress comes about, COR theory predicts people will attempt to mitigate resource loss (Halbesleben et al., 2014; Hobfoll, 1989; Hobfoll & Freedy, 1993). Those that overlook resource loss or individuals who are unable to obtain resources after significant investment may experience negative outcomes such as burnout (Reinardy, 2013; Taris, Schreurs, & Schaufeli, 1999). This suggests that COR theory has a strong motivational component as well.

COR theory consists of three overarching principles. The first principle concentrates on the motivational power of resource loss as compared to resource gain. More specifically, individuals who experience resource loss can either motivate themselves to improve resource gain or simply focus on their weaknesses, exhibit negative behavior, and suffer further loss (aka the loss spiral; Gorgievski & Hobfoll, 2008; Shirom, 2003). This principle is closely tied in with the concept of conscientiousness within COR theory. According to Alarcon et al. (2011), conscientiousness represents an individual who is highly self-directed, desires achievement, organized, maintains a level of responsibility, and aware of both intrinsic and extrinsic surroundings. As a resource, the more an individual is conscientious about his/her surroundings, the greater likelihood of mitigating burnout (Alarcon et al., 2011). The opposite may also result if an individual is less conscientious (Alarcon et al., 2011).

The second principle concentrates on investing in resources to help guard against resource losses, restore resources lost, and push forth to gather additional resources to prevent future deficits (Alarcon et al., 2011). In this sense, low resource investment may result in further loss (Alarcon et al., 2011). Finally, the third principle indicates burnout is a long-term process that unfolds over time (Gorgievski & Hobfoll, 2008; Shirom, 2003). Several studies on burnout, stress, and job demands have incorporated the use of COR theory as a conceptual framework and found support for these three core principles (Alarcon et al., 2011; Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2000; Hakanen, Bakker, & Demerouti, 2005; Hobfoll, 2001; Hobfoll, Johnson, Ennis, & Jackson, 2003; Hobfoll & Lilly, 1993; Lee & Ashforth, 1996). COR theory facilitates a way to understand the link between the work

environment and burnout from the perspective of resource loss, which is considered a behavioral concept.

However, the exploration into how resources influence organizations has been examined under several theoretical and conceptual frameworks such as the resource-based theory (Acedo, Barroso, & Galan, 2006; Conner, 1991) including its theoretical extensions of the knowledge-based theory of the firm (Arend, Patel, & Park, 2014; Nickerson & Zenger, 2004), and the dynamic capability perspective (Barreto, 2010; Teece, 2009; Teece, Pisano, & Shuen, 1997), and finally the popular job demand–resources model (Crawford, LePine, & Rich, 2010; Schaufeli & Taris, 2014). The resource-based theory (and related theories) are more of a system-wide set of theories and the job demand–resources model centers on how both job demands and resources buffer the link between burnout and engagement (Demerouti & Bakker, 2011). Conversely, COR theory concentrates more specifically on the resource concept than those other resource-related theories.

### **The Burnout Process From the COR Perspective**

COR theory has been labeled as one of the theories of burnout, which “links resource utilization to the etiology of burnout through a motivational process” (Park et al., 2014, p. 608). In other words, COR theory is a motivational theory that has opened avenues to help understand the burnout process through a resource-based perspective in many different types of work environments (Halbesleben et al., 2014; Lee & Ashforth, 1996). Individuals are motivated to protect against resource loss when threatened and in turn, utilize other resources in the process (Hobfoll, 1989; Hobfoll & Freedy, 1993). This is a vicious cycle of resource depletion and if continued, burnout may result due to

perceived or actual loss and even the lack of intrinsic energy may help augment the process (Hobfoll & Freedy, 1993). Therefore, resource depletion appears to strengthen the occurrence of burnout (Shirom, 2003). Additionally, work conditions surrounding role stressors, employee training, community and support, and autonomy have been tied to burnout and explained by COR theory (Park et al., 2014; Rod & Ashill, 2009; Shirom, Nirel, & Vinokur, 2010). This evidence suggests a strong link between burnout and COR theory.

As stated previously, burnout is a multidimensional construct of exhaustion, cynicism, and professional efficacy (Maslach et al., 1996). There is a demonstrated link between resources and cynicism and professional efficacy (Maslach et al., 1996). For example, Demerouti et al. (2000) demonstrated job resources were a better predictor of disengagement than exhaustion. Disengagement is similar to burnout concepts of cynicism and lack of professional efficacy. In the same study, job demands predicted exhaustion over disengagement (Demerouti et al., 2000). Yet, in another study, Halbesleben and Bowler (2007) explained emotional exhaustion as an element of resource depletion and found an inverse relationship with in-role performance. The higher the emotional exhaustion, the lower the performance outcome. Nevertheless, there appears to exist a link between the three burnout factors and resources and COR theory is one resource perspective to support this link.

### **The Areas of Worklife From the COR Perspective**

In general, stress results in the loss of resources (Niebusch, 2012) and the six areas of worklife (workload, control, reward, community, fairness, and values) represent workplace stressors that are precursors to the burnout condition (Leiter & Maslach,

2011). Moreover, the areas of worklife variables are often referred to as the “demands and resource predictors” (Lee & Ashforth, 1996, p. 123) of the work environment. As resources, the areas of worklife variables are valuable to the point they help improve the job–person fit in the work environment (Halbesleben et al., 2014). With the exception of workload, these resources are considered finite or fixed requiring the proper allocation to achieve the most optimal job–person fit (Halbesleben et al., 2014). This notion relates to COR theory in that resource loss and misallocation may result in poor decision making and a potential missed opportunity (Halbesleben et al., 2014). Furthermore, COR theory contends when the areas of worklife are reduced, threatened, or simply depleted to the point of not meeting business outcomes, burnout may result (Reinardy, 2013). Since COR theory primarily focuses on how resources influence burnout, viewing the areas of worklife variables as resources is an important component in understanding the relationship between the work environment and the burnout phenomenon among accounting professionals.

### **Accounting and the Accounting Professional**

Accounting is the “language of business” (The Pathways Commission, 2012, p. 22) and is highly important to the business world. Furthermore,

Accounting is a system for recognizing, organizing, analyzing, and reporting information about the financial transactions that affect an organization. The goal of this system is to provide users [e.g., management, stockholders, employees, creditors, suppliers, government agencies] with relevant, timely information that helps them make better economic decisions. (Kelly, McGowen, & Williams, 2014, p. 115)

This is largely the work and business of accounting professionals.

This group of professionals represent the backbone of every business and are important to the accounting profession, its reputation, and level of trustworthiness among the public (International Federation of Accountants, 2005). They are the number crunchers and the facilitators of past accounting (financial and managerial) knowledge. Moreover, the accounting function provides valuable insight into the effectiveness of other business functions and processes. The accounting professional supports cost accounting and other financial information, promotes data analysis, and ultimately influences the decision-making efforts of various business departments (Bureau of Labor Statistics, 2014). However, there are misconceptions surrounding the role of accounting professionals within a business enterprise.

As stated by accountants at Caterpillar, “In the old days . . . a plant accountant . . . didn’t have much responsibility other than to cost the product” (Siegel, Sorensen, Klammer, & Richtermeyer, 2010, p. 37). Accountants worked in silos and in some respects, were simply number technicians for collecting and organizing data. However, the role of the accounting professional has become more diverse, global, and is changing (G. Jones & Abraham, 2007). An example of this change is the increased responsibilities of the management accountant transitioning from a function of financial responsibility to an area of strategic influence (R. Lawson, 2009).

The professional accountant’s role is transforming due to market demands and the pressure of global business. With the advancements in technology, the prominence of data analytics, and the new mantra of cutting costs while maintaining quality, many organizations have had to rethink the current role of managerial accounting. As an example, data analytics has converted the accounting professional’s role to decision



advisor (Schneider, Dai, Janvrin, Ajayi, & Raschke, 2015). The area of data analytics represents the process of applying statistical techniques to structured and unstructured data for decision-making purposes (Schneider et al., 2015). Schneider et al. (2015) noted the accounting professional today has the important role of providing vital support to decision makers (i.e., senior management) through complex data analytics that stems from informational sources beyond historical accounting systems. Additionally, according to studies performed by the Institute of Management Accountants over the last decade, the shift from information collector and assembler to data analysis have provided more opportunity for accounting professionals to partake in decision-making activities (R. Lawson, 2009). Moreover, accounting professionals are even beginning to provide information on enhancing customer and product efficiencies through profitability analysis and focusing on improving business processes (R. Lawson, 2009). Similar transitions in job demands and responsibilities are evident in many areas of accounting from public to private enterprises. With such an immediate transition, accounting professionals may find it more difficult to complete jobs efficiently and effectively due to increased demands and lack of resources (Maslach & Jackson, 1981; Weick, 1983), which may lead to behavioral issues on the job and burnout.

### **Burnout and the Accounting Profession**

Accounting professionals no longer just focus on the technical side of accounting, but now must have enhanced competencies and incorporate more soft skills, such as communication and leadership capabilities into their repertoire (Stovall & Stovall, 2009). This change has transitioned the accounting professional from the technical side of the

accounting process to decision support (Gayle, 2013) and thus repositioning them to have a more prominent role in global business (Kennedy, 2013). This requires new sets of skills, additional training, and a heavier workload than ever before (Ozkan & Ozdevecioğlu, 2013). However, this evolving role encompasses greater pressure placed on the accounting professional leading to burnout and reduced engagement. Furthermore, the amount of information accounting professionals need to review and interpret has increased, requiring a more real-time focus often with limited resources (The Pathways Commission, 2012). As a result, accountants may find their job demands far outweigh the resources to perform tasks efficiently or simply put, to do their job (Maslach & Jackson, 1981; Weick, 1983). In a report issued by Deloitte and Touche, dissatisfaction with the working environment in various types of organizations demonstrated roughly half of the accounting professionals debated about leaving their current place of employment while 30% were searching for a new job (as cited in Cepin, 2011). Such turnover can have a serious impact on a firm's overall profitability (Eyden, 2013).

As Ozkan and Ozdevecioğlu (2013) commented,

Factors such as punctuality, intolerance for mistakes, heavy workload, continuous changes in the regulations in force and the need for high level of concentration are working conditions which increase the level of stress in this profession [i.e., the accounting profession]. (p. 2786)

This may initiate an abandonment of responsibilities, lack of engagement, reduce job satisfaction, augment absenteeism, turnover, illness, and relegated quality (Eastman, 1996; Lackritz, 2004). Therefore, all directions are pointing to the perception that continued exposure to stress in the work environment among accounting professionals may lead to burnout (Holleth-Haudeberet et al., 2011; Lewin & Sager, 2007). Since

accounting professionals represent the knowledge assets of an organization, it becomes increasingly important for retention purposes to keep value-added employees to help fulfill business goals and objectives (Kennedy, 2013). The study of burnout among accounting professionals and the influence of the work environment falls under behavioral accounting research.

### **Behavioral Accounting Research**

Behavioral accounting refers to the study of how accounting information influences or affects behavior (Hofstedt & Kinard, 1970). Perhaps a more precise definition of behavioral accounting focuses on “the application of science concepts to some areas of accounting research such as budgeting, decision making, control and financial reporting” (Balachandran, 1985, p. 20). This area of research attempts to analyze the human element behind the accounting function (Balachandran, 1985). According to Hofstedt and Kinard (1970), three perspectives address the area of behavioral accounting research including (a) the influence of the accountant’s function on behavior, (b) the accountant’s behavior, and (c) the effect accounting information may have on users of financial information. The focus of this current research study spotlighted the responsibilities of accountants and consequently, the resulting influence the work environment has on the behavior of accountants.

Behavioral accounting research is a subdiscipline of accounting research and has been a growing field since the 1970s (Castellano & Roehm, 1977; Hofstedt & Kinard, 1970; Meyer & Rigsby, 2001). Meyer and Rigsby (2001) commented the development of a separate and distinct journal (i.e., *Behavioral Research in Accounting*) by the American

Accounting Association was the direct result of the value of behavioral accounting research and interest at the time. Research studies in behavioral accounting have included auditing practices (Beck, Fuller, Muriel, & Reid, 2013), professional judgment and decision making (Fengchun, Hess, Valacich, & Sweeney, 2014; Solomon & Trotman, 2003; Wright & Wright, 2014), management credibility (Krische, Sanders, & Smith, 2014), behavioral thought (Lord, 1989), behavior within the budget process (Argyris, 1952; Churchill & Cooper, 1965), performance evaluation (Birnberg, Frieze, & Shields, 1977; Kruis & Widener, 2014; Shields, 1980) and accounting behavior under International Financial Reporting Standards (Bailey & Sawers, 2012; Peytcheva, Wright, & Majoor, 2014). These studies mark the importance and growth of behavioral accounting research. Nonetheless, the phenomenon of burnout on accounting behavior has yet to receive much attention, but the burnout phenomenon has not been completely overlooked in general accounting research.

Accounting research has recognized job burnout is connected to negative job outcomes, such as poor performance, low engagement, reduced satisfaction, and high turnover (Fogarty et al., 2000; A. Jones et al., 2012; A. Jones et al., 2010). Furthermore, the burnout condition does in fact occur among accounting professionals, including within internal auditing (Fogarty & Kalbers, 2006; Kalbers & Fogarty, 2005; Kusel & Deyoub, 1983), within corporate accounting departments (Figler, 1980), and within public accounting (Guthrie & Jones, 2012; Law, Sweeney, & Summers, 2008; Rose, 1986; Utami & Supriyadi, 2013).

For example, Fogarty et al. (2000) found a significant correlation between emotional exhaustion and turnover, including job satisfaction. The purpose of their

investigation was to explore how the burnout phenomenon influenced the accounting profession within the auditing area and the role the construct played within a role stress model (Angay & Ersoy, 2010). While the study demonstrated the existence of burnout among accounting professionals, the authors specifically noted the direct relationship between the level of personal accomplishment and one's performance on the job (Fogarty et al., 2000). As a result, Fogarty et al. ascertained that job burnout was significantly correlated with poor job performance. As Guthrie and Jones (2012) summarized, the evidence "supports that burnout is associated with decreased job satisfaction and a declining spiral whereby employees feel trapped in their jobs with a lack of control over their situation and a lack of confidence" (p. 392). This evidence suggested a negative relationship between the work environment and burnout from the perspective of resource loss. This finding surrounded the areas of worklife factor of control and the professional efficacy burnout variable.

Similarly, in an investigation into the effect of public accounting workload during tax season on burnout potential, Sweeney and Summers (2002) found the extra workload burden during the busy season raised burnout experiences to high levels. Prior studies even noted the lack of audit quality that may result from workload overload (López & Peters, 2012). Herda and Lavelle (2012) discovered comparable results after performing their own investigation into auditor burnout. This evidence insinuates a strong connection between workload and burnout providing additional support regarding the work environment's influence over burnout.

Herda and Lavelle (2012) explored the impact of firm commitment and perceptions of fairness on both burnout and turnover intention by surveying 204 auditing

professionals at two public accounting firms. Herda and Lavelle found firm commitment exhibited a negative relationship to auditor burnout and turnover intentions, whereas the latter two constructs had a positive relationship. In other words, the lack of firm commitment may lead to a disparity in organizational values and higher employee turnover because of burnout. Additionally, the study revealed that perceptions of fairness reduced burnout levels and turnover intentions (Herda & Lavelle, 2012). As a result of this finding, Herda and Lavelle stipulated organizational fairness has an important role as one of the stimulating factors in understanding the auditor–firm relationship and how this relationship may lead to lower levels of burnout and turnover. If left unchecked, however, burnout among accounting professionals may lead to lack of engagement, turnover, or in a worst-case scenario, a departure from public accounting all together (Guthrie & Jones, 2012).

The aforementioned studies provide support for the existence of burnout among accounting professionals. Additionally, there is evidence regarding how the work environment may augment the condition (Fogarty et al., 2000; Guthrie & Jones, 2012). Outside of firm commitment and perceived fairness, Almer and Kaplan (2002) and A. Jones et al. (2010) explored how certain strategies taken by organizations or the employees themselves may help mitigate the effects of burnout. Almer and Kaplan explored the effect of flexible working arrangements on the burnout condition and behavioral business outcomes and effectively determined that CPAs with flexible working arrangements fared better and experienced less burnout than CPAs without such work arrangements.

In a similar way, A. Jones et al. (2010) ascertained how living a healthy lifestyle might help reduce the negative burnout outcomes in public accounting professionals. Interestingly, in this same study, Jones et al. discovered that psychological well-being is highly influenced by role stress and burnout ultimately leading to poor job outcomes. As Herda (2012) suggested, fairness among public accounting firms regarding organizational decisions may in fact, lessen the burnout condition, reduce employee turnover, and possibly augment new business opportunities through former employees. Although these studies primarily focus on public accounting, it does suggest that burnout is a growing concern in the accounting profession as a whole and influenced not only by the behavior of the individual, but also by the work environment highlighting factors such as workload and fairness.

The majority of studies on burnout and burnout in the work environment have centered primarily on human service professions (e.g., medical field, nursing, education), nevertheless, exploring this phenomenon is not new territory in the accounting world. Many of the studies on burnout in the accounting profession have focused specifically on the external audit function (i.e., public accounting; Guthrie & Jones, 2012; Law et al., 2008; Rose, 1986; Utami & Supriyadi, 2013). However, in a study of work–life balance factors (including burnout), Buchheit, Dalton, Harp, and Hollingsworth (2014) investigated perceptions of other categories of accounting professionals including tax and private accounting employees. Nonetheless, Buchheit et al. primarily focused on the auditing professional. As a result, there appears a lack of research on exploring the burnout concept beyond the context of the auditing area. Additionally, Rutherford,

Hamwi, Friend, and Hartmann (2011) pinpointed the need for further research on the antecedents of burnout, such as workplace factors.

## **Research Methodology**

### **Research Design**

Research designs are the plans and procedures that bridge the gap between general assumptions about phenomena to the processes used for data collection and analysis (Creswell, 2009). In other words, a research design helps keep the arrangement of a research investigation organized in a systematic way. As Trochim (2006) indicated, the “research design can be thought of as the *structure* of research . . . it is the ‘glue’ that holds all of the elements in a research project together” (para. 1). There are three types of research designs including quantitative, qualitative, and mixed method approaches (Creswell, 2009). In this investigation, the research study concentrated on a quantitative, nonexperimental research design to examine the importance of burnout among accounting professionals.

The choice of a quantitative methodology was primarily due to the lack of research in the accounting and behavioral accounting literature on how the work environment may influence the prevalence of burnout within the accounting profession. As a result, the goal was to explore factors of the work environment and the burnout phenomenon that have largely been overlooked in the literature from an accounting standpoint. Moreover, the overall goal of the research study was to describe trends and explain relationships among variables (Field, 2009). This required selecting a research design that allowed for comparison, the determination of correlation among variables,



and the potential predictive capabilities of relationships (Holton & Burnett, 2005). Furthermore, quantitative designs are normally applied when a conceptual framework is used to facilitate a way to explore a set of hypotheses and provide evidence to either support or repudiate expectations (Creswell, 2009). Therefore, a quantitative approach seemed the most appropriate research design given the lack of research in the topical areas and the goals of the research study.

### **Online Data Collection**

The research study incorporated a quantitative, nonexperimental analysis design concentrating on online survey research as the primary data collection method to address the relationship between burnout and the work environment among accounting professionals. The choice of online survey research was due to several reasons including improving the reliability of data collection (Robson & McCartan, 2015), the ability to reach participants and obtain robust data from a larger geographic area (Hewson, Vogel, & Laurent, 2015), and the cost efficiencies associated in performing research online (Rasmussen, 2008). Furthermore, the majority of studies that investigated the burnout phenomenon and the work environment employed a quantitative research design with survey research (Gascón et al., 2013; Gregory & Menser, 2015; Gupta et al., 2012; Leiter & Maslach, 2004).

Online survey research helps ensure a higher level of reliability. With all participants receiving the same survey with identical questions, the issue of reliability in data collection becomes less questionable (Robson & McCartan, 2015). Traditionally, survey research studies were more hands-on whereas today, technology has made the data collection process less tedious and more proficient (Couper & Miller, 2008; Frippiat

& Marquis, 2010; Rasmussen, 2008). With the Internet and the research possibilities provided by the online environment in general, the use of online surveys has increased and grown in popularity (Frippiat & Marquis, 2010; Miller, 2014; Vehovar & Manfreda, 2008). In addition, online research affords opportunities to develop and distribute surveys more easily, expand participant scope across a greater geographical area, and most importantly, reduce overhead in performing research (Evans & Mathur, 2005; Frippiat & Marquis, 2010; Miller, 2014; Rasmussen, 2008). Nevertheless, online survey research does have some disadvantages.

With online survey research, there have been issues surrounding sample recruitment due to unequal access to the Internet, bandwidth size, lack of processing speed, and web browser complications (Rasmussen, 2008). As Rasmussen (2008) further indicated, “The [web] survey method can, to some extent, be seen as a victim of its own success” (p. 89). Similar to telephone surveys, once a survey method or process reaches maturity, people are simply disinclined to participate. Perhaps, potential participants are exhausted from all of the survey inquiries and reluctant to involve themselves due to lack of incentives. Additionally, while manual surveys take time to assemble and tabulate, online research appears biased to those who use the Internet and limited in scope as e-mail addresses of willing participants are ready for survey delivery (Miller, 2014). Regardless, the advantages of web survey research far outweigh the disadvantages.

Rasmussen (2008) commented that perhaps the most important element driving online research is the opportunity to acquire validated quantitative data that parallels authentic real-life behavior of participants. The essence of quantitative research mirrors Rasmussen’s point in that the purpose of such a research design is to objectively observe

and measure the tangible, real world (Creswell, 2009). Therefore, the work of quantitative research is to determine the appropriate numeric measurements to observe the objective reality (Creswell, 2009). The inclusion of online survey research presented the greatest opportunity to achieve this objective.

### **Recruitment Process**

The recruitment process includes both the dissemination and management of the online survey. Within the recruitment process, one of the most important elements in quantitative research is the concept of random sampling. Random sampling provides an equal chance of selection among the population (C. R. Cooper & Schindler, 2011; Nolan & Heinzen, 2014; Passer, 2014). Furthermore, it represents a higher level of quality over other types of sampling such as convenience sampling where participants are selected for a particular purpose without random consideration (Plonsky & Gass, 2011).

SurveyMonkey (a third-party vendor) controlled both the dissemination and management of the online surveys and ensured random sampling in the data collection process.

SurveyMonkey (2015) confirms random samples through regularly performed benchmarking surveys. However, facilitating the recruitment process through a third-party vendor may have some drawbacks.

With online surveys, third-party vendors screen potential participants (Brandon, Long, Loraas, Mueller-Phillips, & Vansant, 2014; Buchanan & Hvizdak, 2009), but that process may not prevent individuals from misrepresenting who they are or even in providing false statements. Often, third-party vendors offer rewards for participation such as cash and gift cards, which may lead to ethical concerns regarding poor quality responses (Brandon et al., 2014). SurveyMonkey believes by offering noncash offerings

including donations to favorite charities and sweepstakes entries, high-quality responses are more likely (Brandon et al., 2014). Nevertheless, the convenience of randomly sampling a targeted population (in this case, accounting professionals), the ability to collect and download data to SPSS for analysis, and the degree of trustworthiness in participant responses, made the use of SurveyMonkey the ideal venue for sample selection (Brandon et al., 2014) and data collection. Overall, SurveyMonkey distributed online survey invites to Audience volunteers who met the inclusion criteria. Through random selection, participants were sent a link to the online informed consent form, online survey, and demographic questions. Once data collection was complete, participant responses were collected and downloaded from the SurveyMonkey servers to an encrypted portable external drive.

### **Instrumentation**

The survey instruments used in the research study were the MBI-GS and AWS. The MBI-GS and its variants are the most recognized measurements of burnout while the AWS is not as widespread; the survey highlights the degree of fit between the individual person within the context of the work environment (Leiter & Maslach, 2011). The developers of the AWS stipulated,

The notion of “fit” is often presumed to predict such outcomes as choice of job/occupation or of organization (entry issues), or adjustment to the job (newcomer issues). In contrast, burnout involves a later point in the process, when the person has been working for a while and is experiencing a more chronic misfit between self and the job. (Leiter & Maslach, 2011, p. 2)

Leiter and Maslach (2011) suggested burnout represents a chronic condition that occurs over time and requires investigating the phenomena by perceiving the work environment

more holistically rather than from an individualistic perspective. In other words, the examination of burnout and the work environment needs to move away from measures of personal outcomes to the reasons for burnout (i.e., the antecedents of burnout evolving from the work environment). The combination of these two survey instruments provided an opportunity to understand the interaction and accounting behavior within the context of the work setting.

### **Maslach Burnout Inventory–General Survey**

The burnout phenomenon has been measured using one of the three versions of the MBI, which is the most popular measure of burnout with more than 90% of research studies, including dissertations employing the instrument (De Silva et al., 2009). The three versions of the MBI include the original Human Services Survey (MBI–HSS), the Educators Survey (MBI–ES), and the MBI–GS. The authors found inconsistent results among the three scales or measures of burnout in the original survey when investigating non-human service professions (Maslach et al., 1996). As a result, the MBI–ES and MBI–GS were created to focus on those occupations that involved educators and professions with minimal human contact, respectively. According to Maslach et al., the MBI–GS was developed to assist in ascertaining burnout among professions “with only casual contact with people” (p. 20). Since the current research study concentrated on accounting professionals who are deemed to exhibit “casual contact” (Maslach et al., 1996, p. 20) and also not involving educators, the MBI–GS was deemed the appropriate instrument to use. Overall, the instrument investigates the burnout phenomenon from other occupational groups beyond human service positions and educational professionals (Maslach et al., 1996).

The MBI–GS shares many similarities with the other two MBI surveys, but the primary difference resides in the instrument’s emphasis on work performance (Maslach et al., 1996). In general, the MBI–GS describes burnout as a predicament (or crisis) between the individual worker and the work environment and less focused on difficulties with colleagues and other employees (Maslach et al., 1996). In other words, the MBI–GS measures the relationship between employees and their individual work environment; from engagement (e.g., energetic, engaged, confident, dedicated to one’s work) to burnout (i.e., a phenomenon marked by exhaustion, cynicism, and lack of confidence in performance; Maslach et al., 1996). The MBI–GS is a work-focused instrument that helped assess the burnout condition among accounting professionals incorporating three variables: exhaustion, cynicism, and professional efficacy.

The MBI–GS instrument is considered both reliable (Maslach et al., 1996; Reinardy, 2013) and valid (Mäkikangas, Hättinen, Kinnunen, & Pekkonen, 2011; Maslach et al., 1996) in regards to investigating the burnout phenomenon among professionals outside of human services. When exploring the associations between work qualities, personal resources, and the burnout condition among Finland workers over the long-term, Kalimo et al. (2003) exhibited Cronbach’s alpha scores for exhaustion of .96, for cynicism of .90, and for diminished professional efficacy of .87. Similarly, Chirkowska-Smolak and Kleka (2011) found reliability scores of .819 for exhaustion, .736 for cynicism, and .641 for professional efficacy in a study examining burnout various occupational groups in Poland. The authors stipulated their particular investigation “provided support for the three-factor structure of the MBI–GS in a Polish sample of three different occupational groups, confirming the cross-national validity of this

instrument, and demonstrating that burnout is not limited to human service professions” (Chirkowska-Smolak & Kleka, 2011, p. 93). Reinardy (2013) employed the MBI–GS instrument to research burnout within the journalism profession and reported Cronbach’s alpha scores of .89, .84, and .76 for exhaustion, cynicism, and professional efficacy, respectively. The research in this section demonstrates the reliability and validity of the MBI–GS instrument.

Many research studies, however, either used a modified or reduced version of the original survey or the MBI–GS in combination with other instruments (e.g., Kalbers & Fogarty, 2005; Lindblom et al., 2006; Plana, Fabregat, & Gassió, 2003; Reinardy, 2013; Ružić, 2013). For example, a reduced version of the MBI was used to study the burnout phenomenon in the sales profession. In the research study, Ružić (2013) wanted to determine if salespeople in the Republic of Croatia experienced burnout and whether age, gender, years spent in the profession, education, and marital status influenced the phenomenon. While the results indicated burnout at low levels in Croatia overall, younger professionals experienced burnout more than the older professionals. This suggested that age was an influencing factor. Ružić further noted level of education played a role in burnout. More specifically, participants in the sample with more education experienced lower levels of burnout. From the resource perspective, an individual with more education, and thus higher resource levels, may not experience burnout at levels felt by those with little to no education.

Reinardy (2013) employed the MBI–GS instrument to investigate burnout in the newspaper industry regarding how the three components of the MBI–GS instrument measured burnout among laid-off journalists. The study viewed trust, morale, and job

satisfaction (the independent variables) as resources, which the author surmised would exhibit similar results found in prior studies. Furthermore, the study incorporated the use of the COR theory as the conceptual framework to help explain the findings from a resource perspective. Reinardy found support for all three components of burnout and specified majority of the participants exhibited traditional burnout symptoms. The studies in this section provided evidence that supports the use of the MBI-GS instrument in examining the burnout condition. However, to assess the work environment's influence on the three burnout variables requires defining elements of the work environment. As such, the AWS was selected as the primary measure of the work environment.

### **Areas of Worklife Survey**

Leiter and Maslach (2011) developed the AWS to ascertain the job-person fit between the individual and the work environment. The instrument was primarily created to spotlight how the broader, more situated worklife context of the individual influences burnout. The authors believed prior frameworks that addressed this relationship overlooked the stressors and concentrated on personality, job description, and individual job tasks rather than the situated context of an individual's work environment (Leiter & Maslach, 2011). They claimed burnout was a phenomenon that comes from working on the job and over time developing a degree of persistent (or chronic) job-person misfit between the individual and the job (Leiter & Maslach, 2011). The *job* reference in this case involves the influence of the work environment. Therefore, AWS centers on the relationship employees have with their job and highlights six areas of worklife that may influence burnout including workload, control, reward, community, fairness, and values.



Similar to the MBI–GS instrument, the AWS has demonstrated strong reliability and construct validity scores (Gascón et al., 2013; Gregory & Menser, 2015; Leiter & Maslach, 2011). According to Maslach and Leiter (2008), the AWS has shown consistent factor structure and demonstrated reliability scores (workload (.70), control (.70), reward (.82), community (.82), fairness (.82), and values (.74) across various types of samples. For example, in a study examining the six areas of worklife factors among approximately 1,000 workers in a large organization across two different points in time, Maslach and Leiter exhibited reliability scores at or above .70 at both intervals. Additionally, a confirmatory factor analysis performed by Leiter and Maslach (2004) demonstrated, “The six factor solution was found to be an excellent fit to the data . . . with all factors loading significantly on the appropriate item” (p. 106). Leiter and Maslach also indicated the areas of worklife factors “showed consistently high correlations” (p. 102) with the MBI–GS instrument highlighting the relevance to the burnout experience. They also found support for the construct validity of the six-factor structure of the AWS by examining qualitative entries by participants in a hospital research study. The findings were highly correlated with the areas of worklife factors (Leiter & Maslach, 2004). Gregory and Menser (2015), Leiter and Maslach (2004), L. Lawson (2011), and Vittoria (2011) all found the six independent areas of worklife variables did in fact influence burnout to some degree.

### **Partnership of MBI–GS and AWS in the Research**

Leiter and Maslach (2004) investigated a hypothesized mediation model integrating the elements of both the MBI–GS and AWS. In their seminal article, Leiter and Maslach performed a longitudinal and cross-sectional analysis of the hypothesized model. The purpose of the cross-sectional analysis was to examine the central

relationship of the hypothesized mediation model. In general, the hypothesized model proposed the larger the job–person misfit an individual does experience in the work environment, the greater risk of burnout; alternatively, the less job–person misfit, the less risk of burnout (Leiter & Maslach, 2004). The authors found support for the hypothesized model and were surprised by how well the AWS variables predicted burnout. They noted the importance and strength of each variable in the prediction of the three factors of burnout. In other words, the AWS variables alone were not strong predictors of burnout and the relationship enhanced when combined.

The longitudinal analysis investigated the MBI/AWS factors at three different time intervals. In the longitudinal analysis, the authors noted the general pattern of model held consistent with a specific time period, which suggested that predicting the path from one burnout variable to the next time period may be difficult. Nevertheless, the relationship between some of the AWS variables (e.g., workload, fairness, values) at Time 1 predicted burnout at Time 2. These results provide solid support regarding the importance and influence of the AWS variables on burnout (Leiter & Maslach, 2004).

Similar findings were found by Gregory and Menser (2015) in a study that researched burnout among primary care physicians at a large healthcare organization in the United States. Gregory and Menser found support for the original hypothesized model and concluded the hypothesized model provided an insightful look into the antecedents of stress within the work environment. Additionally, Gregory and Menser further surmised the hypothesized model provided a catalyst to help improve burnout in the workplace among physicians. Therefore, it appears the work environment may in fact influence or even drive burnout in the workplace.

The MBI–GS has been used in the majority of burnout research studies (De Silva et al., 2009). Similarly, the AWS has become an authoritative survey research instrument for analyzing the influence of the work environment (Cordes & Dougherty, 1993; Gascón et al., 2013; L. Lawson, 2011; Leiter & Maslach, 2004). Furthermore, the instrument is often combined with the MBI–GS to identify areas of improvement and enhance engagement (Gupta et al., 2012). As Gascón et al. (2013) pointed out, the AWS

Is a good instrument for assessing relationships between employees and their organizations that relate to the three dimensions of burnout . . . [is] an important tool for assessing quality of worklife in organizations . . . [and] provides an excellent tool for the early prediction of burnout. (p. 10)

Maslach et al. (2012) supported this contention and believed the use of both instruments together may help in pinpointing current issues, foreshadow possible future problems, and provide the impetus to foster a method for early burnout detection. As a result, the inclusion of these two survey instruments provided the means to gauge the potential relationship between burnout and the areas of worklife and ultimately, provided support for the posed omnibus research question, research subquestion, and hypotheses.

### **Summary**

The research study concentrated on the importance of examining burnout among accounting professionals, specifically highlighting how the work environment (i.e., areas of worklife) may influence the prevalence of burnout. Accounting professionals experience burnout due to increased pressure in the work environment as a direct result of the growth of technology, the global economic environment, and the additional skills that employers now require (e.g., soft skills such as leadership, communication). This may

lead to burnout and other on-the-job complications such as reduced effort, absenteeism, and turnover. These complications create a negative work environment that may impose unsuccessful business outcomes and diminish the bottom line. Therefore, it is important to explore and discuss the potential of burnout and its antecedents among accounting professionals.

The purpose of Chapter 2 was to present an evaluative summary of the literature encompassing the phenomenon of burnout and the work environment under the theoretical/conceptual basis of COR theory. The literature review presented in this chapter highlighted the relationship between burnout and the areas of worklife outside of the accounting profession. These relationships provided the necessary background of the phenomenon, but also pointed to the dearth of burnout investigations within the accounting and behavioral accounting literature. Additionally, the literature identified the need to explore specific antecedents of burnout, namely the areas of worklife factors, using COR theory.

COR theory is based on the idea individuals are motivated to conserve and acquire resources (Halbesleben et al., 2014). The literature supports the notion that elements of the work environment or the areas of worklife as resources may influence the burnout condition (Lee & Ashforth, 1996). Additionally, the literature supports the contention the six areas of worklife are strong predictors of the phenomenon (Lee & Ashforth, 1996; Leiter & Maslach, 2004). From the COR perspective, the threat of resource loss may drive individuals to protect current resources and strive to obtain new resources to lessen the negative effects of burnout (Halbesleben et al., 2014; Reinardy, 2013). COR theory helps explain and understand the influence of resources as

antecedents of burnout in the work environment (Hobfoll & Freedy, 1993; Maslach et al., 1996; Park et al., 2014; Rod & Ashill, 2009; Shirom, 2003; Shirom et al., 2010).

However, to investigate this relationship required two surveys that have proven reliable and valid in the literature.

The chapter further detailed the research methodology, including the research design and survey instruments used to explore the relationship between the work environment and burnout—the MBI–GS and AWS. A quantitative methodology was selected for its focus on examining variable relationships and the opportunity to statistically measure participant responses using online survey research. The MBI–GS and AWS have been examined together in prior studies centering on the human service professions and other non-human service occupations. These same studies provided evidence of the surveys application and significant relationships (Leiter & Maslach, 2004). Additionally, both instruments have demonstrated solid reliability and validity scores (Leiter & Maslach, 2004). As a result, these two surveys in combination helped reveal relationships between the elements of burnout (exhaustion, cynicism, and professional efficacy) and the six areas of worklife (workload, control, reward, community, fairness, and values) among accounting professionals in the current study.

## CHAPTER 3. METHODOLOGY

### Introduction

The purpose of this quantitative, exploratory research investigation is to apply the COR theory to explore the relationship between the work environment (i.e., areas of worklife; Leiter & Maslach, 2000) and burnout (Schaufeli et al., 1996) among U.S. accounting professionals. Since job burnout has been linked to negative job outcomes, (Fogarty et al., 2000; A. Jones et al., 2012; A. Jones et al., 2010), a more thorough understanding of the work environment on job burnout is needed, especially within the accounting profession. Although investigations exist regarding the relationship between the work environment and job burnout, the dearth of research in the area suggests the need for more knowledge and understanding of this relationship. As a result, the research investigation helps to fill this gap and may help organizations improve on mitigating the effects of the burnout condition.

### Research Design

As Trochim (2006) denoted, “Research design can be thought of as the *structure* of research . . . it is the ‘glue’ that holds all of the elements in a research project together” (para. 1). With that in mind, the research study incorporated a quantitative, nonexperimental multiple linear regression analysis design. The research design evolved

from normative studies on burnout performed by Schaufeli et al. (1996) and the work environment pioneered by Leiter and Maslach (2011). These normative studies crossed a variety of occupational settings and assessed burnout and factors of the work environment individually and in combination. However, these normative research studies and several of the investigations mentioned in Chapter 2 did not explore both constructs by isolating specific professions, but rather treated the variety of professions as a singular sample. Therefore, the goal was to add research with a more exclusive focus on one professional occupation and work setting—the accounting professional.

The research problem explored in this investigation concentrated on the prevalence of burnout in accounting professionals and factors in the work environment (i.e., areas of worklife) that may have influenced the burnout condition. However, the specific focus of the analysis centered on resource quality of the work environment (Leiter & Maslach, 2011). These relationships have yet to find coverage in the accounting literature (Buchheit et al., 2014) or more specifically, the behavioral accounting literature. As a result, the research study attempted to begin to fill this gap by employing a quantitative, nonexperimental multiple linear regression analysis design with the overarching goal to examine the potential relationships between variables (Bates, 2005; Leedy & Ormrod, 2005).

The research design concentrated on survey research addressing the relationship between burnout (the dependent or criterion variables) as measured by the MBI-GS with specific areas of worklife factors (the independent or predictor variables) as identified by the AWS among accounting professionals. The combination of these two surveys gauged the potential relationship between burnout and the predictor variables. These instruments

provided support for the omnibus research question, research subquestion, and related hypotheses and ultimately, helped address the research problem.

### **Population and Sample**

The population for the research study centered on all accounting professionals within the United States. Historically and even today, an accounting professional is one that has been designated as a CPA (Carey, 1968; Dirsmith et al., 2015; Yee, 2001). According to the International Federation of Accountants (2005), a professional accountant is one who exhibits professionalism (having the skills, knowledge, and commitment to integrity with qualified oversight) as an accountant (with focus on professional standards in the reporting of financial information) in business (whether for-profit or not-for-profit) who supports management and helps in achieving value for stakeholders. The accounting roles these professionals partake in encompass traditional accounting tasks (e.g., processing accounts receivable and payable transactions) to new, more complex tasks associated with hedge accounting, cost analysis, and software implementation (Bragg, 2010). Therefore, in the research study, accounting professionals included business professionals with accounting experience from accounting technician (e.g., bookkeeper) to individuals with professional designations (e.g., CPA) whether degreed or nondegreed. The final sample was determined using SurveyMonkey Audience participants.

SurveyMonkey randomly selected Audience volunteers of accounting professionals (a) who performed an accounting role at their respective organization (e.g., accounts payable, accounts receivable, payroll, internal and external auditor, tax,



financial analysis); (b) who had at least one year of experience; and (c) who was 18 years of age or older. These inclusion criteria had an all-inclusive focus to meet the desired sample size. The objective was not to limit the potential sample size by incorporating more inclusion or exclusion criteria. This provided the chance not only to achieve more of a holistic sample (i.e., a sample covering many accounting areas from different industries), but also provided the advantage of a larger sample (reducing sampling error; Vogt, 2007). Nevertheless, determination of the sample size incorporates several elements including significance, power level, and effect size (J. Cohen, 1992).

The determination of sample size was an important part of the research planning and design process (J. Cohen, 1992). It is one of the primary ingredients to power analysis along with the significance criterion, the desired power level (or statistical power), and effect size (J. Cohen, 1992). Commonly, research investigations often use 0.05 and 0.80 or 80% as the conventional or traditional values for significance and power, respectively (J. Cohen, 1992). J. Cohen (1992) stipulated these values address Type I (the risk associated with rejecting a true null hypothesis) and Type II (the risk of accepting a false null hypothesis) errors. In fact, Type II errors may be mitigated due to the use of power analysis (Bosco, Aguinis, Singh, Field, & Pierce, 2014; J. Cohen, 1992). As a result, these same values for significance level and statistical power were used in the research study for calculating the minimal sample size.

The sample size for the research study was determined using G\*Power software (downloaded free from the Internet). Within the statistical software, an *F* test statistical test of a multiple linear regression was selected, including a fixed model, and  $R^2$  deviation from zero with nine predictor variables. Suggestions from J. Cohen (1992);

Prajapati, Dunne, and Armstrong (2010); and dissertation research of similar type (e.g., S. Harrison, 2013; L. Lawson, 2011) were engaged to determine the minimum sample size. With an effect size 0.15, an error probability of 0.05, and statistical power of 0.80, the minimum sample size calculated was 98 using G\*Power software.

Typically, the largest calculated minimum sample size (in this case, 98 participants) would have been used, however, to help meet the normality assumption and mitigate Type I and Type II errors, data collection incorporated survey data from at least 200 accounting professionals using SurveyMonkey Audience. If responses from 200 accounting professionals were not received, the sample size of 98 calculated by the G\*Power software would still have been enough to meet the goals of the research study. Research studies that incorporated similar instruments and variables (e.g., Al-Imam & Al-Sobayel, 2014; S. Harrison, 2013; Niebusch, 2012) experienced similar sample sizes. Moreover, the sample size estimate of 98 is greater than the minimum sample size required for parametric investigations ( $N = 30$ ) according to the central limit theorem (Berenson et al., 2006). In the end, survey data was collected from 206 SurveyMonkey Audience volunteers who met the inclusion criteria.

### **Research Questions**

The research questions for the study were largely influenced by Leiter and Maslach's (2004) psychometric study, which lead to the development of the AWS and exploration into the AWS variables on burnout as measured by the MBI-GS. In both of these investigations, strong support was found for the six items of the AWS (workload, control, reward, community, fairness, and values) in terms of structure and relationship

with the three burnout elements of exhaustion, cynicism, and professional efficacy (Leiter & Maslach, 2004). While Leiter and Maslach (2004) utilized a sample consisting of professionals from various work settings (mostly human service workers), the objective was to understand the relationship between the work environment and burnout among accounting professionals. As a result, the omnibus research question and research subquestion not only highlighted the purpose of the study, but also sought greater insight into the work environment and burnout relationship. The research study concentrated on the following omnibus research question and research subquestion.

**Omnibus Research Question:** To what degree do the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey (AWS) explain the variability of burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey (MBI–GS)?

**Research Subquestion:** Is there a correlation between the six areas of worklife variables (workload, control, reward, community, fairness, and values) and burnout variables (exhaustion, cynicism, and professional efficacy) as measured by the AWS and MBI–GS, respectively?

### **Hypotheses**

The hypotheses for the research study principally resulted from studies performed by Leiter and Maslach (2004) to validate the structure of the AWS variables and their relationship with burnout. These same studies, however, presented only the basic descriptive statistics (e.g., mean, standard deviation) and demonstrated significance

through correlation analysis (Leiter & Maslach, 2004). First and foremost, the objective was to examine the relationship between the AWS and MBI–GS instruments and most importantly, move beyond correlation to incorporate multiple regression in the analysis. Multiple regression centers on the extent to which the areas of worklife can explain or predict the levels of burnout experienced by accounting professionals in the sample. While correlation analysis facilitated an understanding how areas of worklife influenced burnout among accounting professionals and the degree of congruence or fit between the individual and their work environment, multiple linear regression helped assess the “predictive value of the worklife factors in facilitating burnout” (L. Lawson, 2011, p. 114).

H<sub>01</sub>: There is no significant linear relationship between the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey and burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey.

H<sub>A1</sub>: There is a significant linear relationship between the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey and burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey.

A subhypothesis was created for Hypothesis 1 to fully examine the hypothesis:

SubH<sub>01</sub>: There is no significant correlation between the areas of worklife variables and burnout levels experienced by accounting professionals.

SubH<sub>A1</sub>: There is a significant correlation between the areas of worklife variables and burnout levels experienced by accounting professionals.

Pearson correlation coefficient was employed to investigate the subhypotheses. The Pearson correlation coefficient examined whether a possible linear relationship existed between the predictor and criterion variables (Nolan & Heinzen, 2014). As a result, the direction and strength among the variables were of primary interest for examining the subhypotheses (Heiman, 2014; Vogt, 2007). The correlation coefficient ( $r$ ) helped to connect this part of the data analysis with the rest of the investigation. In general, a coefficient of +1 implies a perfect, positive correlation whereas a coefficient of -1 has the opposite effect. The significance, however, only becomes true if the value of  $p$ , a measure of significance, is less than or equal to .95. According to Field (2009), a 95% confidence level with a confidence interval of  $\pm 5\%$  is considered normal conditions for research studies of this type. All AWS and MBI-GS variables were measured at the interval level.

### **Instrumentation**

L. Cohen, Manion, and Morrison (2011) explained that survey instruments “gather data at a particular point in time with the intention of describing the nature of existing conditions, or identifying standards against which existing conditions can be compared, or determining the relationships that exist between specific events” (p. 256). The purpose of using survey instruments within the research study met these three objectives. More specifically, the research design incorporated the use of multiple linear regression analysis for the existence of potential relationships and the degree of influence the areas of worklife may have on the dependent variables of burnout.

## Maslach Burnout Inventory–General Survey

**Origin of the MBI–GS.** The original MBI–HSS is the most popular instrument when examining the burnout phenomenon (De Silva et al., 2009). In the beginning, however, the original survey was dedicated to investigating burnout from a human service perspective. At that time, it was believed the concept of burnout arose from those professions with substantial human interaction. Therefore, the MBI–HSS became the recommended instrument for those researching burnout.

As the study of burnout increased from a non-human service perspective, many investigations found inconsistent results (Schaufeli et al., 1996). More specifically, the three variables of the MBI–HSS (emotional exhaustion, depersonalization, and personal accomplishment) were not revealing similar findings. As Schaufeli et al. (1996) indicated, “In particular the Depersonalization and Emotional Exhaustion subscales tended to collapse into one factor when groups other than human service providers the MBI–HSS. In other words, the original three-factor structure did not provide a robust measure” (p. 19). Therefore, as burnout transitioned from a human service context to include non-human service professions, two additional versions were developed to address the lack of research in this area—the MBI–ES for education and the MBI–GS for all other non-human service occupations.

The MBI–ES and the MBI–HSS are similar instruments except the word *recipient* was switched to *student* and the focus became more specific centering on education rather than human services in general (Schaufeli et al., 1996). Conversely, the primary distinction between the MBI–GS and the MBI–HSS is how burnout spotlights less on the human interaction and more on work performance (Maslach et al., 1996). The MBI–GS

instrument has been used to assess burnout among various occupational groups including the sales profession (Ružić, 2013), journalism (Reinardy, 2013), the business side of education (Maslach & Leiter, 2008), therapy (Al-Imam & Al-Sobayel, 2014; Gupta et al., 2012), and among several subsets of professionals including managers, technologists, psychologists, and nurses (Lindblom et al., 2006; Schaufeli et al., 1996). The instrument has also been utilized to examine non-human service samples internationally within countries such as Poland (Chirkowska-Smolak & Kleka, 2011), Spain (Gascón et al., 2013), and Finland (Kalimo et al., 2003; Schaufeli, Leiter, & Kalimo, 1995).

**The instrument.** The MBI–GS instrument measures the burnout phenomenon through three variables including exhaustion, cynicism, and professional efficacy. Due to the complex nature of burnout, high scores of exhaustion and cynicism with low scores on the professional efficacy scale are not necessarily suggestive of burnout. In essence, only one variable is needed to assess the potential of burnout. As a result, each of the three burnout variables was investigated individually to properly assess the burnout condition (Maslach et al., 1996; Phronebarger, 2014). A composite or overall score of burnout was not determined for purposes of the research investigation.

The survey consists of 16 statements that require participants to indicate how often they experience a certain job-related feeling such as “I feel emotionally drained from my work.” or “In my opinion, I’m good at my job.” These statements are based on a 7-point Likert-type scale from 0 (*never*) to 6 (*every day*; Schaufeli et al., 1996). In general, the MBI–GS instrument assumes the exhaustion and cynicism variables are negatively correlated with professional efficacy (Maslach et al., 1996). Therefore, the

MBI-GS “provide[s] a three-dimensional perspective on burnout” (Maslach et al., 1996, p. 21) measured on an interval scale.

### **Areas of Worklife Survey**

**Origin of the AWS.** The development of the AWS originated from the need to advance an instrument that focused more on the work environment’s influence on burnout among individual workers. The authors of the AWS analyzed prior studies investigating this relationship primarily concentrated on burnout from the perspective of the individual (e.g., personality, job descriptions, job tasks) as opposed to the overall situation, worklife context surrounding the individual worker. Leiter and Maslach (2011) argued, “Many of these interactional models view[ed] person and environment as independent entities, but characterize[ed] them along commensurate dimensions so that the degree of fit, or congruence, between person and environment can be assessed” (p. 2).

They further stressed prior investigations largely overlooked the individual as a more intricate element of emotions, motivations, and stress (Leiter & Maslach, 2011). Additionally, the job element was more task-oriented rather than viewed from a contextual perspective (Leiter & Maslach, 2011). More plainly, the understanding of *job* lacked other influencing environmental factors such as workload or community. The AWS was thus developed to assess the missing worklife context of burnout by investigating six primary factors or areas of worklife including workload, control, reward, community, fairness, and values. These variables are thought to be the “organizational conditions” (Leiter & Maslach, 2004, p. 94) and the “demands and resource predictors” (Lee & Ashforth, 1996, p. 123) of the work environment. The AWS has been used to examine worklife conditions within journalism (Reinardy, 2013), healthcare (Gregory &



Menser, 2015; Leiter & Maslach, 2004, 2011), education (Leiter & Maslach, 2004), and law (Vittoria, 2011). Similar to the MBI–GS instrument, the AWS has been used to assist in assessing the worklife conditions in other countries including Spain (Gascón et al., 2013), Canada, Italy, and Finland (Leiter & Maslach, 2004).

**The instrument.** The work environment is highly complex. Maslach and Leiter (1997) believed this truth and stipulated such complexities make it very difficult or rather impractical to incorporate all potential worklife areas into a research study. As such, the AWS identifies six worklife areas that were comprehensively reviewed in the literature and found to be significant components of the burnout phenomenon (Cordes & Dougherty, 1993; L. Lawson, 2011; Leiter & Maslach, 2004; Maslach & Leiter, 1997; Maslach et al., 2001). Similar to the MBI–GS variables, any of the six worklife variables may represent a burnout factor if a high degree of incongruence is found (L. Lawson, 2011; Leiter & Maslach, 2004; Maslach & Leiter, 1997; Maslach et al., 2001).

The quantitative, interval data generated by the AWS are separate and distinct (Leiter & Maslach, 2011). The survey contains 28 items consisting of both positive and negative word statements and participants respond to each statement based on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*; Leiter & Maslach, 2000). The authors stated a score of more than 3 indicates a greater job–person fit or congruence against a score of less than 3, where increased degree incongruence between the individual and the work environment may exist (Leiter & Maslach, 2000). As a side note, a score of 3 denotes a “Hard to Decide” (Leiter & Maslach, 2000, p. 9) category, which essentially means a neutral choice. The authors indicated the six AWS factors have demonstrated a strong relationship (or correlation) with the MBI–GS instrument (which

can be used by all job types or occupations; Leiter & Maslach, 2011; Maslach & Leiter, 1997).

### **Data Collection**

SurveyMonkey Audience achieved the final sample in the research study. The choice of using an online research instrument delivery system was due to cost and time restrictions. Moreover, the convenience of randomly sampling a targeted population (in this case, accounting professionals), the ability to collect and download data to SPSS for analysis, and the degree of trustworthiness in participant responses, made the use of SurveyMonkey Audience the ideal venue for sample selection (Brandon et al., 2014). Nevertheless, perhaps the primary reason centered on random sampling.

Random sampling provided the opportunity for an equal chance of selection among the population (C. R. Cooper & Schindler, 2011; Nolan & Heinzen, 2014; Passer, 2014). Simply put, random sampling is an indicator of methodological quality in a quantitative investigation (Plonsky & Gass, 2011). SurveyMonkey (2015) routinely performs benchmarking surveys to make sure participants are representative of the U.S. population. Therefore, SurveyMonkey Audience provided greater validity and reliability regarding the sampling frame, recruitment and selection, and overall participant privacy and confidentiality. Furthermore, by handling the administration of the online surveys, the use of SurveyMonkey Audience reduced the likelihood of bias.

### **Dissemination of the Online Survey**

SurveyMonkey distributed online survey invites to Audience volunteers who met the inclusion criteria. Once volunteers clicked the link from the invite, they were taken to

the informed consent form. The informed consent form contained specifics regarding the research study, including procedures employed during the study such as the steps surrounding privacy and confidentiality, participant rights to withdraw from the research study, and potential risks and benefits of participation (Duffy & Chenail, 2009; Sarantakos, 2005; Wester, 2011). The informed consent form also indicated the inclusion criteria for recruitment purposes.

At the end of the informed consent form, participants had the option to accept or decline participation. Those individuals who declined selected the “I Disagree” button, excluded themselves from the research study, and automatically received a message of ineligibility. As a result, they did not contribute any information to the research study. Conversely, participation was confirmed (i.e., accepted) once participants clicked the “I Agree” button and received a message of eligibility. SurveyMonkey randomly selected the participants and did not assign them to specific groups.

### **Management of the Online Survey**

The primary data collection method in the research study involved the use of the MBI-GS and AWS measurement instruments. SurveyMonkey disseminated both surveys to participants and managed the overall data collection process. In most cases, the online survey took an average of fewer than 10 minutes and 206 completed responses were received within three days. SurveyMonkey later indicated the minimum sample size was achieved within less than one week and subsequently closed the survey. Survey data was collected from SurveyMonkey’s website, downloaded to one encrypted, external hard drive, and promptly stored in a combination locked safe for data analysis.

## Data Analysis

According to Leiter and Maslach (2004), correlations and multiple regression statistical analysis techniques may be used to investigate relationships among variables and the prediction of MBI results. Therefore, while correlation analysis (i.e., Pearson correlation coefficient) was used to investigate relationships and test assumptions, multiple regression techniques elevated the analysis to investigate the predictability of burnout via the areas of worklife variables. Both statistical evaluations aided in understanding the effect of burnout in the workplace among accounting professionals. The initial step in the data analysis, however, concentrated on developing a sample profile of the online survey data to help gauge the context of the sample.

The survey data was downloaded, including demographic information, from the SurveyMonkey website to begin data analysis. Descriptive statistics were calculated and the demographic information collected (e.g., age, gender, race, type of industry, job title, number of years of experience, region of employment, marital status, level of education) were used to help understand the makeup of the sample. The data analysis consisted of calculated frequencies and various percentages for this purpose. The next step was to statistically review data from each of the two surveys separately.

The MBI–GS assesses burnout based on individual responses regarding three variables including exhaustion, cynicism, and professional efficacy. Individual scores were tabulated for each burnout variable and then combined for an aggregate total for overall burnout experienced in the sample. This aggregate total was then placed into one of three levels of burnout as indicated by the MBI Manual, which includes high, moderate, or low levels. Subsequently, each variable's total was divided by the number of

related items on the MBI–GS instrument (Maslach et al., 1996). This calculation provided a sense of how each variable on the survey contributed to burnout among accounting professionals in the sample. When completed, the burnout component scores and aggregate score can then be matched against normative values presented in the MBI Manual (Maslach et al., 1996; Zalaquett & Wood, 1997). Independent *t* tests were performed for this comparative purpose. Additionally, these scores also provide the opportunity to compare with other participant responses demographics and information on job characteristics (Maslach et al., 1996). The AWS variables of workload, control, reward, community, fairness, and values were treated in a similar manner. This initial analysis was followed by multiple regression and correlation statistical techniques.

Multiple linear regression was employed in this investigation to evaluate the degree to which the six areas of worklife (workload, control, reward, community, fairness, and values) actually explained the variability of burnout levels experienced by accounting professionals. More plainly, the statistical test explored the explanatory value the areas of worklife may have in foretelling the burnout condition individually among the accounting professionals in the sample (L. Lawson, 2011). Three separate multiple regressions were developed with the help of SPSS statistical software to conduct the data analysis. Each multiple regression centered on all of the areas of worklife variables at once with only one of the burnout variables. As indicated by L. Lawson (2011) in a similar analysis,

The correlations provided a descriptive and explanatory analysis with regard to the relationship of burnout with the six contextual work factors, and the regressions provided a descriptive and explanatory analysis with regard to the predictability of the contextual work factors in facilitating burnout. (p. 114)

However, survey data was first examined in lieu of the various assumptions regarding multiple regression. This preliminary step was necessary to validate the robustness of the survey data (Laerd Statistics, 2013).

The assumptions of multiple linear regression included the independence of observations, linearity (both collectively and individually between the independent and dependent variables), homoscedasticity, lack of multicollinearity, the nonexistence of outliers, high leverage points, large influence points, and finally, normality (Laerd Statistics, 2013). The Durbin–Watson statistical test was incorporated into the research study to help investigate the independence of observations or the lack thereof (Laerd Statistics, 2013). Additionally, scatterplot diagrams for each pair of predictor/criterion variables and in total were assessed for linearity, focusing on the nonlinear pieces of the relationship and homoscedasticity (Osborne & Waters, 2002). As Osborne and Waters (2002) stipulated, the preparation of scatterplot diagrams is the preferable method for ascertaining linearity in multiple linear regression analysis.

Another assumption of multiple linear regression is a special condition called multicollinearity. If predictor variables are highly correlated, a condition called multicollinearity (Berry, 1993; Marill, 2004; Poole & O’Farrell, 1970), some overlap may occur influencing how much the independent variables combined account for the variance in the criterion variables. To examine for possible multicollinearity among the six areas of worklife variables, a Pearson correlation coefficient matrix was developed to explore the correlation among all predictor variable pairs (Rumsey, 2009). In general, a strong relationship between two predictor variables (a correlation above/below +0.7 or -0.7, respectively) indicates multicollinearity. In the research study, multicollinearity was

not found among the independent variable data (see Table 11 in Chapter 4; Laerd Statistics, 2013; Rumsey, 2009).

Furthermore, as another test for multicollinearity and correlation, data analysis incorporated calculating tolerance and VIF values (Laerd Statistics, 2013). Values for the tolerance statistics of less than 0.1 and for the VIF test of greater than 10, provides evidence of multicollinearity (Mertler & Vannatta, 2004). The calculated values for the both the tolerance and VIF statistics for this sample data bypassed those guidelines. It appeared the independent variables in this analysis were not highly correlated. As a result, multicollinearity was not an issue in the research study.

The final two assumptions concentrated on detecting outliers, looking at leverage, influential points, and assessing the normality of the data. The first three were investigated using scatterplots and CaseWare Diagnostics under SPSS (Laerd Statistics, 2013). Normality, however, was ascertained through histograms, P-P plots, and a normal Q-Q plot in SPSS (Laerd Statistics, 2013). As a side note, multiple linear regression does assume the data used in a research study represents a normal distribution (Osborne & Waters, 2002; Poole & O'Farrell, 1970).

With this in mind and for further verification of normality, data plots, skew values, kurtosis indicators and frequency distributions were included in the analysis (Osborne & Waters, 2002). The assumptions previously described and their examination assisted in determining whether a relationship existed between the predictor and criterion variables. Fortunately, the assumptions for multiple linear regression were true to form in this investigation. If any of the assumptions had failed, however, the application of specific statistical tests including time series methods, data transformations, and so forth,

within SPSS would have been employed to help improve the outcomes (Laerd Statistics, 2013).

Some additional considerations for data analysis included how to handle missing data and examining the fit of the multiple linear regression model. Since both the MBI-GS and AWS were administered through SurveyMonkey, there was the possibility that not all respondents submitted a completed version. In such instances, those responses were discarded from the data analysis. As Rumsey (2009) indicated, “For any model selection procedure, assessing the fit of each model being considered is built into the process” (p. 110). With that in mind, the adjusted  $R^2$  value that resulted from the multiple linear regression analysis and the  $F$  test within the analysis of variance (ANOVA) were reviewed for model fit.

On average, the adjusted  $R^2$  value is more favorable to  $R^2$ , because the latter value will keep increasing with each predictor variable added to the analysis (Rumsey, 2009). This may lead to false interpretations. As such, the adjusted  $R^2$  value considers all the variables in the analysis and lowers the  $R^2$  figure as more predictor variables are considered (Rumsey, 2009). Thus, adjusted  $R^2$  is a control mechanism to help prevent the inclusion of too many predictor variables. Conversely, the  $F$  test examines whether the independent variables of the multiple regression model significantly predict the dependent variable and ultimately, the overall model fit for the data (Laerd Statistics, 2013). The adjusted  $R^2$  values calculated for each of the three multiple regression models were .406, .368, and .312 for exhaustion, cynicism, and professional efficacy, respectively. While these adjusted  $R^2$  values do not appear as high predictors of the



burnout dependent variables, the *F* test for each of the three separate multiple regressions indicate the models represent a strong fit for the data.

### **Validity and Reliability**

In quantitative research, one of the most important elements to improve on is the quality and robustness of the analysis. This assists in establishing the validity and reliability of the employed survey instrument. Creswell and Clark (2011) stipulated that quantitative research needs to “consider the validity of the conclusions . . . to reduce threats to internal and external validity” (p. 211). Internal validity refers to elements of the research design including procedures, treatments, or participant experiences that may influence drawing reasonable conclusions (Creswell & Clark, 2011; Vogt, 2007). Conversely, external validity represents the ability to generalize the results to other populations and settings (Creswell & Clark, 2011; Vogt, 2007). The limited population in this investigation ultimately influences the overall “reasoning about cause and effect” (Vogt, 2007, p. 122) or outcomes and likewise, the generalization of the sample. In the research study, however, proving validity depended mostly on the degree of congruency between the survey measurement and expectations (Vogt, 2007). With this in mind, the specific validity question encircled construct validity or more specifically, convergent validity.

Convergent validity is a version of construct validity that refers to the “extent to which a test correlates with other tests of the same construct” (Meltzoff, 1998, p. 281). By comparing similar research studies that focused on burnout and the areas of worklife factors, the results of this investigation might show similar relationships and thus,

positive convergent validity or correlation (Vogt, 2007). This procedure was performed and further explanation is provided in Chapter 5. Additional elements of consideration in this analysis related to weak construct operationalization and faulty statistical analysis (Vogt, 2007). Nevertheless, the relationships identified compared to other research studies of similar design helped minimize these operationalization threats. Another area of concern in this quantitative investigation was the reliability of the data. While validity often times refers to the overall accuracy of the research design, reliability assists in determining the accuracy of the specific measurements used in the investigation (Vogt, 2007).

The concept of reliability focuses on the consistency of the survey instrument (Vogt, 2007). More specifically, does the instrument provide a consistent measurement across a variety of research investigations and perhaps over time? The research study concentrated on internal consistency reliability, which represents the consistency among survey items (Meltzoff, 1998). One of the statistical tools or general estimators of internal consistency reliability (and the test used in the research study) was Cronbach's alpha, the coefficient alpha test. The purpose of Cronbach's alpha was to assist in accessing the reliability of both the MBI-GS and AWS (Meltzoff, 1998; Vogt, 2007). This reliability test helped ensure the consistency and partial accuracy of the existing sample and statistical analysis (Vogt, 2007). For more detail on the validity and reliability for the current study, see Chapter 5. The following sections highlight both the validity and reliability of each instrument in the literature.

## **Maslach Burnout Inventory–General Survey**

The MBI–GS instrument has been judged a valid (Mäkikangas et al., 2011; Maslach et al., 1996) and reliable (Maslach et al., 1996; Reinardy, 2013) survey. For example, in national samples (e.g., Dutch, Finnish, Canadian samples), the assumed negative relationship between exhaustion and cynicism and the level of professional efficacy was consistent across various occupations from clerical staff to management (Maslach et al., 1996). Within the same study, the Dutch sample exhibited consistent stability (or reliability) coefficients for exhaustion (.65), cynicism (.60), and professional efficacy (.67; Maslach et al., 1996). Leiter and Durop (1996) noted similar results in a research study investigating the MBI–HSS. According to Madsen (2004), a relatively high stability coefficient indicates less fluctuation over time and “signals both measurement reliability and response continuity” (p. 1063). Furthermore, Schaufeli et al. (1995) found the three variables of the MBI–GS instrument were consistent with other burnout variables such as work overload, role conflict, and organizational commitment.

Additionally, when comparing positive and negative qualitative comments with quantitative data from the MBI–GS instrument, Leiter and Schaufeli validated the relationship between the three variables (Maslach et al., 1996). Similarly, in an investigation of burnout among a variety of occupations in Poland, Chirkowska-Smolak and Kleka (2011) found support for the three-factor of structure of the MBI–GS. The authors confirmed the use of the MBI–GS beyond the human service professions. Other studies supported both the validity (Gregory & Menser, 2015) and reliability Gregory & Menser, 2015; Reinardy, 2013) of the MBI–GS instrument. Each burnout variable was assessed individually in these research studies. As Maslach et al. (1996) surmised,

“Together, these analyses support the expectation that the MBI–GS measures a state of burnout that is consistent with that measured by the MBI–HSS among human service providers and with theoretical considerations regarding the burnout concept” (p. 25). Thus, the validity of the three-dimensional perspective on burnout appears to hold.

From a reliability perspective, the MBI–GS instrument has demonstrated consistent reliability scores. For example, in a study of resources and burnout among Finland employees, Kalimo et al. (2003) revealed Cronbach’s alpha scores for the three factors of burnout (exhaustion, cynicism, and decreased professional efficacy) above .80. Chirkowska-Smolak and Kleka (2011) demonstrated strong internal consistency of .819 for exhaustion, .736 for cynicism, and .641 for professional efficacy. Additionally, in an investigation of burnout in journalism, Reinardy (2013) revealed Cronbach’s alpha scores of greater than .70 for each of the three areas of burnout. Accordingly, this support provides strong evidence regarding reliability of the MBI–GS instrument.

### **Areas of Worklife Survey**

Similar to the MBI–GS instrument, the AWS measurement tool has demonstrated robust validity and reliability scores. For validity, Leiter and Maslach (2011) compared the quantitative data from the AWS with qualitative comments from a hospital study involving 1,443 participants. Most of the comments involved complaints organized into one of the six areas of worklife scales. Interestingly enough, the authors found complaints matched up appropriately with the six AWS variables effectively demonstrating the validity of the AWS. Additional studies have provided support for the six-factor structure of the AWS (e.g., Gascón et al., 2013; Gregory & Menser, 2015; Leiter & Maslach, 2004) and internal consistency (e.g., Gascón et al., 2013; Gregory & Menser, 2015;

Maslach & Leiter, 2008). Maslach and Leiter (2008) performed an investigation into the areas of worklife among a sample of over 1,000 workers employed at a large organization. The sample was surveyed at two different points to assess the influence of the AWS variables over time. Maslach and Leiter found consistency with the AWS at each time interval. Correspondingly, based on a normative sample of 456 healthcare providers over a one-year period, Leiter and Maslach (2011) found consistent test–retest correlations (a statistical test of reliability) ranging from .51 to .62. This indicated a strong level of correlation, but the authors caution these scores may vary with time and can change if an individual’s relationship with the work environment changes. Leiter and Maslach (2004) also indicated the areas of worklife factors was highly correlated with the MBI–GS instrument highlighting the relevance to the burnout experience. Several studies have highlighted the significant connection between the AWS variables and burnout (e.g., Gregory & Menser, 2015; L. Lawson, 2011; Vittoria, 2011). In other words, they all found the six independent areas of worklife variables did in fact influence burnout to some degree.

### **Ethical Considerations**

Ethical compliance focuses on protecting those who participate in research studies. In accordance with ethical standards, it becomes increasingly important to report verifiable data with an audit trail for example and data that can be replicated through other investigations (Horner & Minifie, 2011). If this is not accomplished, the ethics behind the investigation may come into question (Horner & Minifie, 2011). Ethical considerations began with the overall research design.

The research design for a quantitative investigation needs proper consideration to provide support for the research questions and related hypotheses. This generally means formulating the research questions in a way that demonstrates the research problem, selecting constructs, variables, aligning operational definitions, and employing measurements that may lead to the appropriate resolution (Vogt, 2007). The development of the proper research design also highlights the importance of considering ethical hindrances.

In the research study, one of the objectives concentrated on the alignment from the research design phase all the way through to data analysis and presentation. During the investigation, acknowledging the lack of experience in statistical analysis and the use of specialized software was the first step in addressing ethical concerns. As a result, various statistical materials and advice was sought to ensure data analysis was properly undertaken.

Beyond proficiency in statistical software, Marshall and Rossman (2011) went on to indicate a trustworthy investigation further depends on how “ethically engaged” (p. 44) one is during the research process and how the study is handled. Thus, it appears being ethically engaged requires not only abiding by ethical principles, but also relying on some common sense that comes through experience. This becomes especially important in data collection in regards to informed consent, confidentiality, anonymity, and in data analysis in the online environment (Buchanan, Aycock, Dexter, Dittrich, & Hvizdak, 2011). This also includes decisions that highlight participant recruitment and selection.

Participants included in the final sample served a pivotal role in investigating the omnibus research question. The criteria for participant selection included professionals

(a) who perform an accounting role in their respective organization, (b) who have at least one year of experience, and (c) who are 18 years of age or older. Since the focus of the research study centered on analyzing burnout and areas of worklife factors among accounting professionals, it was very important and practical to select participants with accounting experience. The key was to randomly select participants to avoid blindly favoring some over others. This is the essence of equitable treatment. For example, the use of a nonprobability technique, such as purposeful sampling, may not seem equitable in terms of participant selection. By its very definition, the term nonprobability insinuates a lack of randomly sampling the targeted population. Random sampling provided the opportunity for an equal chance of selection among the population and thus helped reduce bias (C. R. Cooper & Schindler, 2011). This is one of the reasons why SurveyMonkey Audience participants were utilized. Using a third-party vendor, provided greater validity and reliability regarding the sampling frame, recruitment and selection, and overall participant privacy and confidentiality.

Using the G\*Power software and with the help of SurveyMonkey Audience, the sample was selected to be a conservative generalization of the population of accounting professionals across the United States. SurveyMonkey (2015) regularly performs benchmark surveys of its Audience participants to make sure they are representative of the U.S. population. Additionally, the use of a third-party provider afforded the opportunity to investigate a section of the U.S. population of accounting professionals with minimal recruiting effort (Gayle, 2013). By separating the administration of the online survey, the use of SurveyMonkey Audience reduced the likelihood of bias. As a result, SurveyMonkey's methodology and the potential to explore a cross-section of

accounting professionals across the United States, was the best option to help answer the omnibus research question and research subquestion. SurveyMonkey was also utilized due to cost and time restrictions. From an analysis standpoint, the G\*Power software has often been used for sample selection procedures in studies of this type (e.g., Gayle, 2013; Stephenson, 2012). This enabled the opportunity to focus the results on a given population to provide reliable and valid contributions to the specific population and theory under analysis.

Another ethical consideration centered on participant honesty in completing the online surveys and the risk of misrepresentation. With online surveys, third-party providers screen potential participants (Brandon et al., 2014; Buchanan & Hvizdak, 2009), but that process may not prevent individuals from producing false statements about their experience. As an enticement to enhance honesty and achieve quality responses, third-party vendors can offer rewards for participation such as cash and gift cards (Brandon et al., 2014). SurveyMonkey is a strong proponent of this method and believes higher quality responses are received as a result (Brandon et al., 2014). Along these same lines, the benefits and risks of participation are other ethical areas that need consideration.

*The Belmont Report* discusses the principle of beneficence or what is commonly referred to as the “do no harm” (Marshall & Rossman, 2011, p. 47) philosophy surrounding research with human participants. In other words, one needs to design the research study so participants are not harmed during the process (Kvale & Brinkmann, 2009; Marshall & Rossman, 2011; Wester, 2011). In the research study, there was no risk responses would harm participants or others. Wester (2011) stressed the “do no harm”



philosophy emphasizes “protecting participants from harm before, during, and after the study” (p. 302). To further this objective, information from participants was kept anonymous and confidential. The overall goal of these procedures was to reduce (or minimize) any participant vulnerability to harm.

Alternatively, another way to satisfy the beneficence principle is to notify participants of the benefits and risks of the research study through a formal, informed consent form (Kvale & Brinkmann, 2009). As an ethical practice, informed consent represents an ongoing procedure that continues throughout the research process (Marshall & Rossman, 2011). The “do no harm” philosophy of the *Belmont Report* also extends to the confidentiality and anonymity of participants (Kvale & Brinkmann, 2009; Wester, 2011). For that reason, participants’ private information was not disclosed to outside parties. Furthermore, the informed consent form included information that summarized the purpose of the research study, the procedures performed, a statement indicating the research study was voluntary, the participant’s right to terminate the survey at any time, and the procedures employed to protect participant privacy and confidentiality (e.g., prohibiting access to sensitive data; Duffy & Chenail, 2009; Sarantakos, 2005; Vogt, 2007; Wester, 2011).

In regards to the accuracy of reported results, the ethical consideration focused on validity and reliability concerns in quantitative research studies. The results were not manipulated to serve any specific agenda and thus, the data and analysis remained true to form. Participants were not simply as “a means to further knowledge” (Walker, 2007, p. 38), but more as a vessel that added or contributed to the body of knowledge.

Additionally, Creswell and Clark (2011) stipulated that the design of quantitative

research requires contemplating threats to internal and external validity. Internal validity refers to elements of the research design including procedures, treatments, or participant experiences that may influence drawing reasonable conclusions (Creswell & Clark, 2011; Vogt, 2007). Conversely, external validity represents the ability to generalize the results beyond the original sample and context (Creswell & Clark, 2011; Vogt, 2007).

The threats to both internal and external validity fall under limitations within a research design. In the research study, internal validity concentrated on the threats to conclusions whereas external validity focused on the transferability or generalizability of the findings and convergent validity (Vogt, 2007). Participants were randomly selected based on a set criterion (internal validity), which may have influenced a specific desired outcome (Creswell & Clark, 2011; Vogt, 2007). In addition, the limited population will influence the management of replication studies. Also, convergent validity was an ethical factor.

Convergent validity represents the degree to which a statistical test compares to other statistical tests examining the same construct (Meltzoff, 1998). This level of validity may be achieved by comparing and contrasting how the instrumentation fared in similar studies. Other ethical considerations centered on the strength of the operationalized constructs and flawed statistical analysis and reasoning (Vogt, 2007). The relationships identified in the study were comparable to other research studies of similar research design. This finding helped mitigate these ethical issues. Correspondingly, curtailing the statistical analysis threat relating to reliability involved performing the coefficient alpha test or Cronbach's alpha.

In the research study, Cronbach's alpha test aided in accessing the reliability of both measurements (Meltzoff, 1998). This reliability test helped ensure the consistency of the existing sample and statistical analysis. Overall, the validity and reliability of the current investigation was effectively evaluated through comparisons with the literature and the Cronbach's alpha calculation resulting in authentic and trustworthy research.

The final ethical consideration centered on data storage for protecting both the confidentiality and the anonymity of participants. This consideration not only began with administering informed consent, but also securing private information and other research data within a password encrypted portable hard drive, which was removed to a secure system, and not requiring participants to reveal personal, identifiable information (e.g., name, phone number, home address). More specifically, survey data information was kept on an encrypted portable drive that was securely locked in a cabinet when not in use. As required by Capella Institutional Review Board guidelines, all data related to the research study will be destroyed after seven years, at which time the protected USB drive will be broken in half and rendered unusable. Moreover, any paper copies of notes and observations will be destroyed immediately upon completion and publication of the research study. The information will be shredded and sent to a recycling center for disposal. With all of these performed ethical procedures, the notion that ethics is "always in progress" (Davies & Dodd, 2002, p. 281) was followed from research design all the way through data collection and analysis.

## Summary

This chapter focused on the methodology aspect of the research study. The research investigation incorporated a quantitative, nonexperimental, multiple regression research design with the use of online research for data collection. The purpose for the research design was largely based on normative studies using both the MBI–GS and AWS. The inclusion of these two surveys in tandem helped gauge the relationship between the areas of worklife factors and burnout. The discussion in this chapter provided a brief history on the development of these two instruments, their use in the literature, their makeup, and overall contributions to the current investigation. Data collection and data analysis were also discussed in this chapter.

SurveyMonkey was employed to assist in the dissemination and management of the online survey, which involved recruitment, data management, and selecting the final random sample. SurveyMonkey Audience members were asked to participate in the research study via an e-mail delivered by the third-party provider. SurveyMonkey maintained survey data on encrypted SSL server for later use. Participant responses were downloaded to an encrypted, portable drive and analyzed using SPSS 23 software.

The data analysis process encompassed the use of multiple regression techniques to provide support for the omnibus research question and related hypotheses. This first included examining that data against the assumptions of multiple regression to help verify the normality of the data, multicollinearity, the fitness of the model among other statistical assumptions. Data analysis further involved assessing the validity and reliability of the research design and measurement instruments. Within this chapter, information was presented that verified the validity and reliability of these two

instruments in the literature and within the current study. Additionally, ethical considerations surrounding the research were presented to ascertain, explain, and discuss the importance of participant privacy, confidentiality, protection from due harm, data security, and the validity and reliability of the results to present trustworthy and honest research.

In summary, Chapter 3 discussed the methodology behind the current research study including the research design, the instruments used for data collection, the statistical tools employed for data analysis, and procedures undertaken to protect participant information. The procedures mentioned in this chapter set forth the foundation to conduct and present a more valid and reliable research study. The next chapter focuses on the results of the statistical analysis.

## CHAPTER 4. RESULTS

### Introduction

The influence of the work environment on burnout in the accounting profession has become an important concern (Hollett-Haudeberet et al., 2011; Lewin & Sager, 2007). However, there is a lack of research investigating the relationship between the two concepts in both the accounting and the behavioral accounting literature. Since burnout has become a growing global matter (Nash, 2013), the importance of this exploratory research not only surrounds the discussion of accounting professional burnout, but also on its antecedents (Rutherford et al., 2011). Therefore, the purpose of the current quantitative, nonexperimental research study was to investigate the relationship between the six areas of worklife (workload, control, reward, community, fairness, and values) as defined by the AWS (Leiter & Maslach, 2000) and the three variables of burnout (exhaustion, cynicism, and professional efficacy) as measured by the MBI-GS (Schaufeli et al., 1996) among U.S. accounting professionals.

Chapter 4 begins with a restatement of the omnibus research question, research subquestion, hypothesis, and related subhypothesis followed by a description of the population and sample from a quantitative perspective. The next section highlights descriptive statistics to provide the context of the sample. A summary of the results follows with a more explanatory and illustrative breakdown of the analysis and results by hypothesis statement and conclusion. The current research study explored the relationship

between areas of the work environment and burnout by posing the following omnibus research question and research subquestion.

### **Research Questions**

**Omnibus Research Question:** To what degree do the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey (AWS) explain the variability of burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey (MBI–GS)?

**Research Subquestion:** Is there a correlation between the six areas of worklife variables (workload, control, reward, community, fairness, and values) and burnout variables (exhaustion, cynicism, and professional efficacy) as measured by the AWS and MBI–GS, respectively?

### **Description of Population and Sample**

The research investigation centered on a population of accounting professionals with the following characteristics, including participants (a) who performed an accounting role at their respective organization (e.g., accounts payable, accounts receivable, payroll, internal and external auditor, tax, financial analysis), (b) who had at least one year of experience, and (c) who was 18 years of age or older. Recruitment and selection were based on these inclusion criteria and potential participants who failed to meet these requirements were excluded from the investigation.

SurveyMonkey randomly selected 433 potential subjects from its Audience database who met the inclusion criteria and sent them e-mail invitations. According to a SurveyMonkey representative, the “exact figure [from their database] we cannot share. Partially because it’s always changing. Every day new [Audience] panelists are added, certain ones quit or are removed, and other are in temporary quarantines” (S. Kramer, personal communication, November 30, 2015). Of the 433 potential participants, 302 responded to the e-mail invitation.

The total sample size calculated using G\*Power software was 98 participants. The decision was made to collect at least 200 completed surveys rather than the calculated minimum sample size of 98 for the purpose of reducing sampling error (Type I and/or Type II) and to increase the likelihood of a normal distribution of the collected data (Vogt, 2007). The survey was active for three days and no reminder e-mails were necessary. Overall, 206 completed surveys were obtained at the end of the data collection, which represented an overall 48% response rate.

### **Descriptive Statistics**

The sample was comprised of 206 accounting professionals randomly selected by SurveyMonkey from across the United States with the majority residing in the South region (34.5%) in such states as Maryland, Kentucky, Florida, Texas, and the District of Columbia. The breakdown of the sample by region is presented in Table 1.



Table 1. *Sample of Accounting Professionals by Region*

Region	<i>n</i>	%
Northeast	59	28.6
South	71	34.5
Midwest	45	21.8
West	29	14.1
Prefer not to answer	2	1.0

*Note.*  $N = 206$ . Northeast region includes Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New Jersey, New York, and Pennsylvania. South region includes Maryland, Delaware, West Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas, and the District of Columbia. Midwest region includes North Dakota, South Dakota, Nebraska, Kansas, Missouri, Iowa, Minnesota, Wisconsin, Illinois, Michigan, Indiana, and Ohio. West region includes Washington, Idaho, Montana, Wyoming, Oregon, California, Nevada, Utah, Colorado, Arizona, New Mexico, Alaska, and Hawaii.

According to the data collected, a majority of the respondents were women with 167 (81.1%) in the sample while only 38 (18.4%) of males completed the online survey. The age of the sample centered on the ranges 18–29 (21.4%), 30–44 (33.4%), and 45–59 (29.6%). A greater part of the sample was White (79.1%), however, the sample did include Black or African Americans (6.8%) and Asians (8.7%) with more than half of respondents (52.4%) who were married. The level of education among the respondents varied between some college (21.4%) through graduate level (14.5%). The largest portion of respondents had reached the bachelor’s level (36.9%), but the majority of participants reported at least some college experience. Sample demographics for gender, age range, race, marital status, and level of education are summarized and provided in Table 2.

Table 2. *Gender, Age Range, Race, Marital Status, and Level of Education of Sample of Accounting Professionals*

Demographic	<i>n</i>	%
<b>Gender</b>		
Male	38	18.4
Female	167	81.1
Prefer not to answer	1	0.5
<b>Age range</b>		
18–29	44	21.4
30–44	69	33.4
45–59	61	29.6
60 and above	30	14.6
Prefer not to answer	2	1.0
<b>Race</b>		
White	163	79.1
Black or African American	14	6.8
Hispanic	6	2.9
American Indian or Alaska Native	1	0.5
Asian	18	8.7
Native Hawaiian or Other Pacific Islander	0	0.0
Some other race	1	0.5
Two or more races	2	1.0
Prefer not to answer	1	0.5
<b>Marital status</b>		
Married	108	52.4
Never married (or single)	52	25.2
Separated	4	2.0
Divorced or widowed	40	19.4
Prefer not to answer	2	1.0
<b>Level of education</b>		
Did not finish high school	1	0.5
High school degree or equivalent	13	6.3
Some college, but no degree	44	21.4
Associate's degree	41	19.9
Bachelor's degree	76	36.9
Graduate degree	30	14.5
Prefer not to answer	1	0.5

As expected, the largest portion of accounting professionals (32.0%) worked in the finance and insurance industry while another sizable segment of the sample was

employed in the professional, scientific, and technical services industry (9.2%). This latter industry primarily consists of CPAs, non-CPAs, and areas of other professional services. The years of experience of the participants at their current place of employment concentrated on the one to 10-year period for less than half the sample (45.6%). However, 31 of the respondents did not answer this demographic question. As a result, the years of experience are presented in Table 3 with percentages based on the original 206 respondent sample and valid percentages. With valid percentages, SPSS was able to calculate the years of experience including only those respondents who answered the related online survey question. In this case, 175 participants of the 206 sample provided a response to the degree of experience at their current place of employment. This increased the one to 10-year period from 45.6% to more than 50%. Sample demographics by Type of Industry and Job Title are also included in Table 3.

### **Summary of Results**

Two hundred and six SurveyMonkey Audience volunteers completed the online survey in its entirety. The data analysis incorporated the use of multiple regression and Pearson correlation coefficient computations to provide support for the following omnibus research question and research subquestion.

#### **Omnibus Research Question**

To what degree do the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey (AWS) explain the variability of burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey (MBI–GS)?

Table 3. *Sample of Accounting Professionals by Type of Industry, Job Title, and Years of Experience*

Demographic	<i>n</i>	%	Valid %
<b>Type of industry</b>			
Accommodation and food services	2	1.0	-
Administration, business support & waste management services	10	4.9	-
Agriculture, forestry, fishing and hunting	3	1.5	-
Arts, entertainment and recreation	4	1.9	-
Construction	12	5.8	-
Educational Services	12	5.8	-
Finance and insurance	66	32.0	-
Government & Not-for-profit	12	5.8	-
Healthcare and social assistance	15	7.3	-
Information	3	1.5	-
Manufacturing	14	6.8	-
Professional, scientific and technical services	19	9.2	-
Real estate and rental and leasing	5	2.4	-
Retail trade	8	3.9	-
Transportation and warehousing	8	3.9	-
Utilities	3	1.5	-
Wholesale trade	4	1.9	-
Prefer not to answer	6	2.8	-
<b>Job title</b>			
Owner/Executive/C-Level	14	6.8	-
Senior management	22	10.7	-
Middle management	50	24.3	-
Intermediate	109	52.9	-
Prefer not to answer	11	5.3	-
<b>Years of experience</b>			
1–10	94	45.6	53.7
11–20	35	17.0	20.0
21–30	20	9.7	11.4
31–40	2	1.0	1.1
More than 40	1	0.5	0.6
Prefer not to answer	23	11.2	13.2
No response	31	15.0	0.0

*Note.* *N* = 206. The valid % column for years of experience was based on a total sample size of 175 participants.

The findings revealed that two of the regression models explained more of the variability ( $R^2$ ) of burnout levels experienced by the sample of accounting professionals.

More precisely, exhaustion and cynicism regression models explained 42.4% (adjusted value of 40.6%) and 38.7% (adjusted value of 36.8%) respectively with beta coefficients of statistical significance surrounding workload and reward. Professional efficacy, on the other hand, explained only 33.3% (adjusted value of 31.2%) of the variation with beta coefficients of statistical significance for control, reward, and fairness. The ANOVA tests revealed significant *F* scores indicated not only a linear relationship between the independent and dependent variables, but also support for a good model fit with the data and evidence that substantiates the alternative hypothesis relating to the omnibus research question. Both workload and reward contributed more to the explanation for the experienced levels of exhaustion and cynicism in the sample of accounting professionals.

### **Research Subquestion**

Is there a correlation between the six areas of worklife variables (workload, control, reward, community, fairness, and values) and burnout variables (exhaustion, cynicism, and professional efficacy) as measured by the AWS and MBI-GS, respectively?

The findings of the Pearson correlation coefficient analysis overall demonstrated a significant relationship between the variables of burnout (exhaustion, cynicism, and professional efficacy) and the six areas of worklife variables (workload, control, reward, community, fairness, and values). The data showed that majority of the areas of worklife variables exhibited a significant negative relationship with a medium strength of association for both exhaustion and cynicism. Conversely, the data revealed a positive relationship with a small to medium strength of association with professional efficacy. At the individual level, the greatest correlations and largest strength of association existed

between the exhaustion–workload ( $r = -.59$ ), cynicism–reward ( $r = -.54$ ), and professional efficacy–control ( $r = .52$ ) relationships. This means workload and reward exhibited a negative relationship with both exhaustion and cynicism, while control demonstrated a positive relationship with professional efficacy among the sample of accounting professionals. Therefore, these findings provide evidence for the alternative hypothesis statement under the research subquestion and further helps explain the findings for the omnibus research question. Furthermore, the findings support the high level of cynicism reported among the sample.

## **Details of Analysis and Results**

### **Data Collection and Preparation**

SurveyMonkey collected and received completed surveys from 206 accounting professionals across the United States. The third-party vendor selected Audience participants (a) who performed an accounting role at their respective organization (e.g., accounts payable, accounts receivable, payroll, internal and external auditor, tax, financial analysis); (b) who had at least one year of experience; and (c) who was 18 years of age or older. Audience participants who did not meet the inclusion criteria were omitted from the investigation. SurveyMonkey controlled the data collection process to mitigate bias.

SurveyMonkey was able to achieve more than the desired sample size of 200 participants after three days. The online survey closed after 206 completed surveys were downloaded to a protected, encrypted portable memory stick. The raw data was promptly exported to Microsoft Excel for data preparation, screening, coding, and the handling of

missing data. Excel provided the means to help convert the raw data for analysis purposes. Additionally, each independent and dependent variable were treated separately during the conversion process.

The burnout variables of exhaustion, cynicism, and professional efficacy (the dependent variables) were converted to calculate a total score per variable to assess the prevalence of burnout among the sample, including their relevant mean scores. The process for the areas of worklife variables of workload, control, reward, community, fairness, and values (the independent variables) was treated in the same manner. However, based on recommendations from Leiter and Maslach (2011), some of the survey items relating to workload, reward, community, and fairness were reverse scored. Reverse scoring means that negatively worded items within the online survey were valued differently (i.e., items marked 1, 2, 3, for example, were scored 5, 4, 3, respectively; Leiter & Maslach, 2011). The majority of the data preparation and eventually regression analysis, however, focused on mean scores of each of the nine variables.

### **Detail of Data Analysis**

The data analysis segment of the research study involved two parts. The first part concentrated on examining individually the burnout variables as measured by the MBI-GS and worklife variables as gauged by the AWS. The second part of the analysis focused on validating the assumptions and performing multiple regression analysis to evaluate the relationship between the independent and dependent variables.

As will be discussed later in the chapter, the original 206-participant sample was reduced to 200 respondents due to outliers associated with the professional efficacy

variable. Table 4 summarizes the sample means and standard deviations for all nine variables before and after the outliers were removed. Although removing the outliers helped meet the assumptions of multiple regression, the information in Table 4 indicates a slight increase in the mean for all variables except fairness and values. Additionally, all variables experienced a small increase in calculated standard deviation scores other than professional efficacy. Overall, not much difference noted in the updated sample without the outliers.

Table 4. *Sample Means and Standard Deviations*

Variable	With outliers		Without outliers	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Burnout				
Exhaustion	2.497	1.708	2.520	1.721
Cynicism	2.529	1.695	2.564	1.702
Professional efficacy	4.870	1.128	4.973	.966
Areas of worklife				
Workload	3.233	.810	3.243	.819
Control	3.740	.865	3.742	.867
Reward	3.384	1.001	3.393	1.014
Community	3.620	.804	3.620	.813
Fairness	3.160	.902	3.157	.915
Values	3.687	.810	3.678	.811

**Burnout and the MBI-GS.** According to Maslach et al. (1996), burnout is associated with high levels of exhaustion and cynicism with low levels of professional efficacy. Nevertheless, since burnout is such a complex phenomenon, specific observed levels of each variable may be indicative of the condition (Maslach et al., 1996; Phronebarger, 2014). As a result, the burnout variables of exhaustion, cynicism, and



professional efficacy were treated separately in this analysis. Tables 5 and 6 demonstrate the prevalence of burnout among the sample in total and by mean scores.

Table 5. *Prevalence of Burnout Among Accounting Professionals Under Total Scores*

MBI-GS subscale	With outliers		Without outliers	
	<i>f</i>	%	<i>f</i>	%
Exhaustion				
High ( $\geq 16$ )	72	34.95	72	36.00
Moderate (11–15)	39	18.93	36	18.00
Low ( $\leq 10$ )	95	46.12	92	46.00
Cynicism				
High ( $\geq 11$ )	108	52.43	107	53.50
Moderate (6–10)	48	23.30	45	22.50
Low ( $\leq 5$ )	50	24.27	48	24.00
Professional efficacy				
High ( $\geq 30$ )	119	57.77	119	59.50
Moderate (24–29)	51	24.76	51	25.50
Low ( $\leq 23$ )	36	17.47	30	15.00

The data presented in Table 5 does not indicate a substantial difference between the scores with outliers and the scores without outliers. Under both scenarios, the overall sample did not appear to exhibit the burnout condition with majority of the sample demonstrating low exhaustion (46.12%; 46.00%) and high professional efficacy (57.77%; 59.50%). Interestingly enough, a significant portion of the sample did experience high levels of cynicism (52.43%; 53.50%). On a variable-by-variable basis, the degree of cynicism highlighted in Table 5 among the sample does point towards the presence of burnout among accounting professionals.

Table 6. *Prevalence of Burnout Under Mean Scores*

MBI-GS subscale	With outliers			Without outliers		
	<i>M</i>	<i>SD</i>	Level of burnout	<i>M</i>	<i>SD</i>	Level of burnout
Exhaustion						
High ( $\geq 3.20$ )						
Moderate (2.01–3.19)	2.50	1.71	Moderate	2.52	1.72	Moderate
Low ( $\leq 2.00$ )						
Cynicism						
High ( $\geq 2.20$ )	2.53	1.70	High	2.56	1.70	High
Moderate (1.01–2.19)						
Low ( $\leq 1.00$ )						
Professional efficacy						
High ( $\leq 4.00$ )						
Moderate (4.01–4.99)	4.87	1.13	Moderate	4.97	.97	Moderate
Low ( $\geq 5.00$ )						

Maslach et al. (1996) stipulated that most burnout research reports the mean scores to obtain another measurement of burnout. Similar to the results presented in Table 5, the mean variable scores in Table 6 demonstrated moderate levels of both exhaustion and professional efficacy and high levels of the cynicism variable. This was the same result under the sample with outliers and the reduced sample without outliers. In combination, the analysis of the sample and mean scores indicated a moderate existence of burnout, but on an individual basis, burnout appeared among the sample of accounting professionals due to the high levels of exhibited cynicism. This finding suggests an inconsistent pattern of burnout among the sample of accounting professionals.

As an additional analysis, the means associated with total scores of burnout among the sample in Table 5 were compared with normative means established by

Maslach et al. (1996) using independent *t* tests for significance. The analysis is presented in Table 7 and concentrated on the reduced sample size of 200 as a result of removing outliers associated with professional efficacy.

Table 7. Means Comparison With Normative Sample (MBI-GS) Without Outliers

MBI-GS subscale	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i> (two-tailed)
Exhaustion					
Normative	20.99	10.75			
Sample	12.60	8.60	10.974	11,265	< .0001*
Cynicism					
Normative	8.73	5.89			
Sample	12.82	8.51	9.640	11,265	< .0001*
Professional efficacy					
Normative	34.58	7.11			
Sample	29.84	5.79	9.372	11,265	< .0001*

*Note.* *N* = 200. The original sample of 206 was reduced due to the removal of outliers associated with professional efficacy. The normative sample includes various occupations (*N* = 11,067) using the MBI-HSS instrument. The normative data are from *Maslach Burnout Inventory Manual* (3rd ed.), p. 8, by C. Maslach, S. Jackson, & M. P. Leiter, Menlo Park, CA: Mind Garden, Inc. Copyright 1996 by Mind Garden, Inc. Reprinted with permission.

\**p* < .05.

The normative comparison in Table 7 illustrates that both normative means of exhaustion (*M* = 20.99, *SD* = 10.75) and professional efficacy (*M* = 34.58, *SD* = 7.11) were greater than the related sample means (exhaustion, *M* = 12.60, *SD* = 8.60; professional efficacy, *M* = 29.84, *SD* = 5.79). Additionally, the sample mean for cynicism (*M* = 12.82, *SD* = 8.51) was larger than the normative data (*M* = 8.73, *SD* = 5.89). Of course, the difference in normative and sample means was largely the result of varied

sample size. More importantly, however, the independent  $t$  tests indicated significant differences were found between the normative data and the sample data for all three burnout variables of exhaustion,  $t(11,265) = 10.974, p < .0001$ , two-tailed; cynicism,  $t(11,265) = 9.640, p < .0001$ , two-tailed; and professional efficacy,  $t(11,265) = 9.372, p < .0001$ , two-tailed. Therefore, the experience of burnout appears prevalent in the normative data for exhaustion ( $M = 20.99$ ) and within the sample data for cynicism ( $M = 12.82$ ).

This evidence is important for the prevalence of burnout in the sample, but determining the causes of the observed level of cynicism will provide a more detailed analysis. More specifically, while the MBI-GS provides a validated measure of burnout symptoms, the survey alone does not provide any indication as to what influenced the observed values for each burnout variable among the sample of accounting professionals, especially in investigating burnout in the workplace. The AWS fulfills this purpose. An analysis of the work environment appears in the next section including a comparison with normative data.

**Work environment and the AWS.** The AWS views the work environment as highly influential antecedents to burnout (Leiter & Maslach, 2011). Within the survey, there are six areas of worklife factors that have been considered important elements affecting the burnout condition (Leiter & Maslach, 2011). The six areas of worklife include workload, control, reward, community, fairness, and values. In general, an observed score of 2.99 or less indicates a mismatch between an individual and his or her job (Leiter & Maslach, 2011). A score of 3.01 and above indicate a high level of congruity or job-person fit while a score of 3.00 represents a neutral observed score or

“Hard to Decide” (Leiter & Maslach, 2000, p. 9) whether the incongruity or congruity exists. Similar to the three MBI–GS variables, any one of the six AWS variables can lead to burnout if observed levels are low enough (Leiter & Maslach, 2004, 2011). The observed levels of mismatch/congruence with the work environment for the sample are presented in Table 8 for both the original and reduced sample. As noted earlier, not much difference noted between the two samples.

The data displayed in Table 8 indicates that under all six AWS variables, more than half of the sample perceived a positive job–person fit. This means that more than 50% of the sample experienced no mismatch, but a congruent relationship between their job and work environment. Therefore, the data suggests within the majority of the sample of accounting professionals, the six AWS variables did not influence burnout. Even though this finding supported the low level of exhaustion and high levels of professional efficacy among the sample, it did not explain the elevated observed scores of cynicism reported by respondents. This suggests the AWS variables may not completely explain the degree of cynicism experienced within the sample and some other variable may be involved.

As a supplemental analysis, the means associated with total scores of mismatch/congruence among the sample in Table 8 were compared with normative means established by Leiter and Maslach (2011) using independent *t* tests for significance. The analysis is presented in Table 9 concentrated on the reduced sample size of 200 as a result of removing outliers associated with professional efficacy.

Table 8. *Level of Mismatch/Congruence With Work Environment*

AWS subscale	With outliers		Without outliers	
	<i>f</i>	%	<i>f</i>	%
<b>Workload</b>				
Mismatch (1.00–2.99)	72	34.95	70	35.00
Hard to decide (3.00)	14	6.80	11	5.50
Congruence (3.01–5.00)	120	58.25	119	59.50
<b>Control</b>				
Mismatch (1.00–2.99)	34	16.51	33	16.50
Hard to decide (3.00)	8	3.88	6	3.00
Congruence (3.01–5.00)	164	79.61	161	80.50
<b>Reward</b>				
Mismatch (1.00–2.99)	56	27.18	56	28.00
Hard to decide (3.00)	34	16.51	29	14.50
Congruence (3.01–5.00)	116	56.31	115	57.50
<b>Community</b>				
Mismatch (1.00–2.99)	37	17.96	37	18.50
Hard to decide (3.00)	11	5.34	10	5.00
Congruence (3.01–5.00)	158	76.70	153	76.50
<b>Fairness</b>				
Mismatch (1.00–2.99)	73	35.44	73	36.50
Hard to decide (3.00)	17	8.25	16	8.00
Congruence (3.01–5.00)	116	56.31	111	55.50
<b>Values</b>				
Mismatch (1.00–2.99)	33	16.02	33	16.50
Hard to decide (3.00)	13	6.31	12	6.00
Congruence (3.01–5.00)	160	77.67	155	77.50

*Note.*  $N = 200$ . The original sample of 206 was reduced due to the removal of outliers associated with professional efficacy.

The mean comparison with the normative sample presented in Table 9 demonstrates a similar result as the burnout variables of exhaustion, cynicism, and professional efficacy (i.e., the sample demonstrated higher mean scores than the normative values under the AWS). This supports the contention the sample of accounting

professionals experienced more congruency or job–person fit above normative respondents. Additionally, the independent *t* tests for the six areas of worklife variables in the sample were significant compared to the normative data (e.g., fairness,  $t[22,746] = 7.840, p < .0001$ , two-tailed).

Table 9. Means Comparison With Normative Sample (AWS) Without Outliers

AWS subscale	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i> (two-tailed)
Workload						
Normative	22,582	2.96	.80			
Sample	200	3.24	.82	4.927	22,780	< 0.0001*
Control						
Normative	22,588	3.31	.86			
Sample	200	3.74	.87	7.039	22,786	< 0.0001*
Reward						
Normative	22,588	3.19	.89			
Sample	200	3.39	1.01	3.160	22,786	= 0.0016*
Community						
Normative	22,572	3.38	.84			
Sample	200	3.62	.81	4.024	22,770	< 0.0001*
Fairness						
Normative	22,548	2.78	.80			
Sample	200	3.16	.91	6.679	22,746	< 0.0001*
Values						
Normative	22,523	3.24	.79			
Sample	200	3.68	.81	7.840	22,721	< 0.0001*

Note. *N* = 200. The original sample of 206 was reduced due to the removal of outliers associated with professional efficacy. The normative data are from *Areas of Worklife Survey Manual* (5th ed.), p. 13, by M. P. Leiter & C. Maslach, 2011, Menlo Park, CA: Mind Garden, Inc. Copyright 2011 by Mind Garden, Inc. Reprinted with permission.

\**p* < .05.

The normative comparisons in Tables 7 and 9 provide consistent evidence for the observed scores of exhaustion, cynicism, and professional efficacy in regards to the prevalence of burnout among accounting professionals (see Tables 5 and 6). Similarly, the normative comparisons demonstrated a comparable pattern among the six areas of worklife concerning job–person fit (see Table 8). Nevertheless, the comparison did little to clarify the reasons for the noted scores of cynicism among the sample of accounting professionals. As a result, to assist in further understanding burnout as demonstrated by the high levels of cynicism found in the analysis, it is important to comment on any relationships between burnout and the areas of worklife. This was accomplished through multiple regression analysis. The following section attends to these relationships, assists in comprehending the perceived scores of the cynicism variable, and provides support for the omnibus research question and research subquestion. However, the initial and final analysis concentrated on investigating the assumptions of multiple regression and regression coefficients using the reduced sample due to removing outliers related to the professional efficacy variable.

**Multiple regression assumptions and analysis.** The omnibus research question asked, To what degree do the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey (AWS) explain the variability of burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey (MBI–GS)? Based on the data analysis presented up to this point, the answer to the omnibus research question is rather negligible in regards to the cynicism variable. More specifically, the observed values of the AWS variables do not explain the level of cynicism noted among the sample of accounting professionals. To



examine the variability in burnout levels as indicated in the omnibus research question, multiple regression analysis was incorporated into the research methodology. As with all statistical choices, however, the examination of related assumptions was the first step in the analysis.

***Examining assumptions and order of testing.*** The assumptions for multiple regression include independence of observations, linearity between the independent and dependent variables, homoscedasticity, no multicollinearity, no appearance of significant outliers, leverage points, or influential points, and the presence of a normal distribution among the data (Laerd Statistics, 2013). According to Laerd Statistics (2013), validating these assumptions helps in the accuracy of the analysis and prediction, assists in making sure the multiple regression models actually fit the data, improves the possibility of assessing the variability between the dependent and independent variables, and augments hypothesis testing of the regression equation. These assumptions must be examined before multiple regression begins otherwise the analysis may be distorted (Vogt, 2007) and results difficult to interpret (Zikmund, Babin, Carr, & Griffin, 2010).

***Independence of observations (or errors).*** The independence of observations assumption highlights the need for independence regarding the observations in the investigation. In other words, the assumption focuses on making sure no autocorrelation (or high levels of correlation) exist among the errors noted in the analysis. The Durbin–Watson test was employed to examine the independence of observations assumption within SPSS. This test calculates values between 1 and 4 where values closer to 1 indicate a negative correlation and values near 4 reveal a more positive correlation. Durbin–Watson scores close to 2 provide an indication of a lack of correlation or no

autocorrelation among the observations. As indicated in Table 10, all three of the burnout variables exhibited Durbin–Watson scores around 2, exhaustion (2.257), cynicism (2.104), and professional efficacy (2.027) with the original 206 participant sample. Even when outliers were removed, Durbin–Watson scores appeared reasonable for exhaustion (2.245), cynicism (2.147), and professional efficacy (2.125). Therefore, the independence of observations assumption was not violated.

*Linearity.* The linearity assumption highlights that combined independent variables exhibit a linear relationship with the dependent variables. This assumption was validated using SPSS by reviewing a scatterplot of the residuals against the predicted values for all of the three dependent variables and partial regression plots. The SPSS results for residuals and predicted values for exhaustion are presented in Figure 2. A similar depiction was found for both cynicism and professional efficacy.

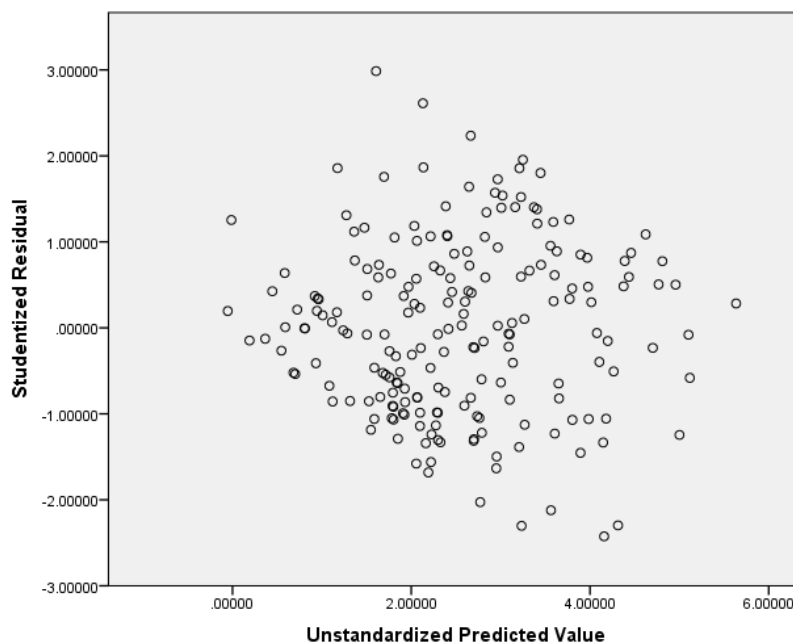


Figure 2. Residuals and predicted values for exhaustion.

Table 10. *Independence of Observations Assumption Validation Summary*

Variables	Independence of observations (Durbin-Watson test = 2)		Multicollinearity				Leverage points (Centered leverage values < .2)		Influential points (Cook's distance values < 1)	
	With outliers	Without outliers	Tolerance (values > .1)		VIF (values < 10)		With outliers	Without outliers	With outliers	Without outliers
			With outliers	Without outliers	With outliers	Without outliers				
Exhaustion	2.257	2.245					.131	.132	.123	.120
Cynicism	2.104	2.147					.131	.132	.104	.101
Professional efficacy	2.027	2.125					.131	.132	.060	.073
Workload			.756	.758	1.323	1.320				
Control			.551	.552	1.813	1.812				
Reward			.408	.400	2.450	2.502				
Community			.457	.459	2.187	2.181				
Fairness			.359	.357	2.785	2.803				
Values			.495	.495	2.018	2.021				

All of the partial plots (i.e., graphs of each dependent variable against each independent variable) demonstrated a similar linear relationship. Figure 3 presents the partial plot for exhaustion and workload.

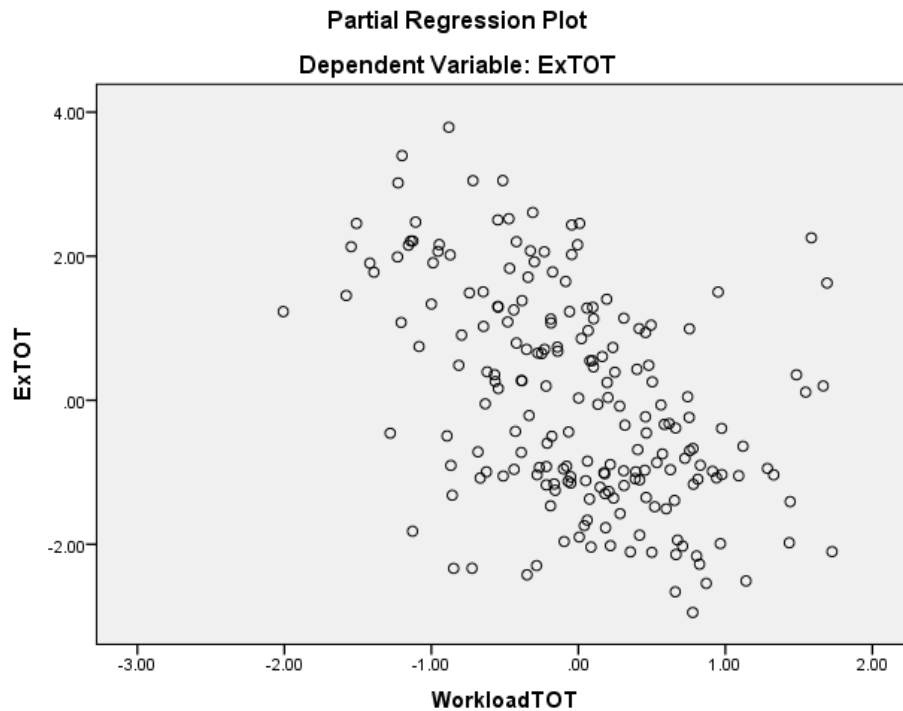


Figure 3. Partial plot for exhaustion and workload.

*Homoscedasticity.* Homoscedasticity concentrates on the how the residuals are plotted in relationship to the dependent variables. More specifically, if the residuals significantly increase or decrease as dependent variables change, then heteroscedasticity has been achieved and the assumption of homoscedasticity failed. As presented in Figure 2, homoscedasticity is present because as dependent variables change (moving from left

to right), the residuals appear somewhat consistent. Therefore, the assumption of homoscedasticity holds true.

*Multicollinearity.* The multicollinearity assumption centers on the independence of the independent variables. In other words, the independent variables should not exhibit a high correlation. Two types of analyses were performed to test the multicollinearity assumption. The first analysis was the Pearson correlation coefficient statistical test or simply correlation and the second was calculating both the tolerance and VIF values. Correlations (whether positive or negative) above .70, tolerance values of less than 0.1, and VIF scores of greater than 10, may indicate multicollinearity. Table 11 presents the results of the correlational analysis among the independent variables. As indicated, none of the independent variables demonstrated a correlational value above .70. Correspondingly, tolerance/VIF values presented in Table 10 were also within appropriate ranges. Therefore, multicollinearity did not appear to be present among the independent variables.

*Outliers.* The detection of outliers using SPSS CaseWare Diagnostics, calculating centered leverage points, and assessing influential points is extremely important within a research investigation. Without such exploration, final results may be skewed. CaseWare Diagnostics within SPSS was utilized to help pinpoint potential outliers and if discovered, corresponding leverage values and influential points were investigated. As Laerd Statistics (2013) suggested, all three measures need consideration for determining the existence of outliers. There were no observations that appeared as potential outliers via CaseWare Diagnostics for both exhaustion and cynicism.

Table 11. *Correlation Between Areas of Worklife Variables*

AWS subscale	1	2	3	4	5	6
1. Workload	1.00	.34**	.39**	.24**	.41**	.18*
2. Control	-	1.00	.54**	.55**	.59**	.55**
3. Reward	-	-	1.00	.66**	.70**	.60**
4. Community	-	-	-	1.00	.66**	.54**
5. Fairness	-	-	-	-	1.00	.64**
6. Values	-	-	-	-	-	1.00

Note.  $N = 200$ .

\*Correlation is significant at the  $p < .05$ , two tailed. \*\*Correlation is significant at the  $p < .01$ , two-tailed.

However, four outliers were found for professional efficacy. As a result, centered leverage values and Cook's distance (a measure of influence) were utilized to examine influential points among those four potential outliers. The results are presented in Table 10. In general, centered leverage values of less than 0.2 and Cook's distance calculations of 1 or less are safe. The results in Table 10 indicate safe leverage and influential points.

Upon further examination into the outliers, however, all four observations experienced lower levels of professional efficacy when compared to the rest of the sample. Additionally, each respondent had varied demographics. As Keith (2015) explained, "If a number of outliers share characteristics in common and are systematically different from other cases, it may suggest that a different regression is needed" (pp. 199–200). While systematically different, the four outliers did have some commonality in regards to professional efficacy scores, but diverged from a demographic standpoint (e.g., respondents from different backgrounds). This suggests the four outliers

may exist as a product of normal variation (Keith, 2015). Nevertheless, the four outliers were removed to prevent distorting the results. The analysis was then performed without the outliers and all multiple regression assumptions were met with the exception of two additional outliers corresponding to the professional efficacy variable. In a similar fashion, these outliers were also removed and the analysis was performed a third time. The data analysis appeared to meet the multiple regression assumptions after the third attempt reducing the sample size from 206 to 200 participants.

*Normal distribution.* The purpose of this assumption is to have the ability to run inferential statistics for statistical significance. In this sense, the residuals need to exhibit a normal distribution. A histogram with an applied normal curve and P-P plot were incorporated into the analysis to test the normality assumption. The residuals should demonstrate an approximate normal distribution and within the P-P plot, the residuals must align along the diagonal line to meet this assumption. After the removal of the outliers, all of the three burnout variables passed the normality assumption. The histogram and P-P plot for professional efficacy are presented in Figures 4 and 5 as an example.

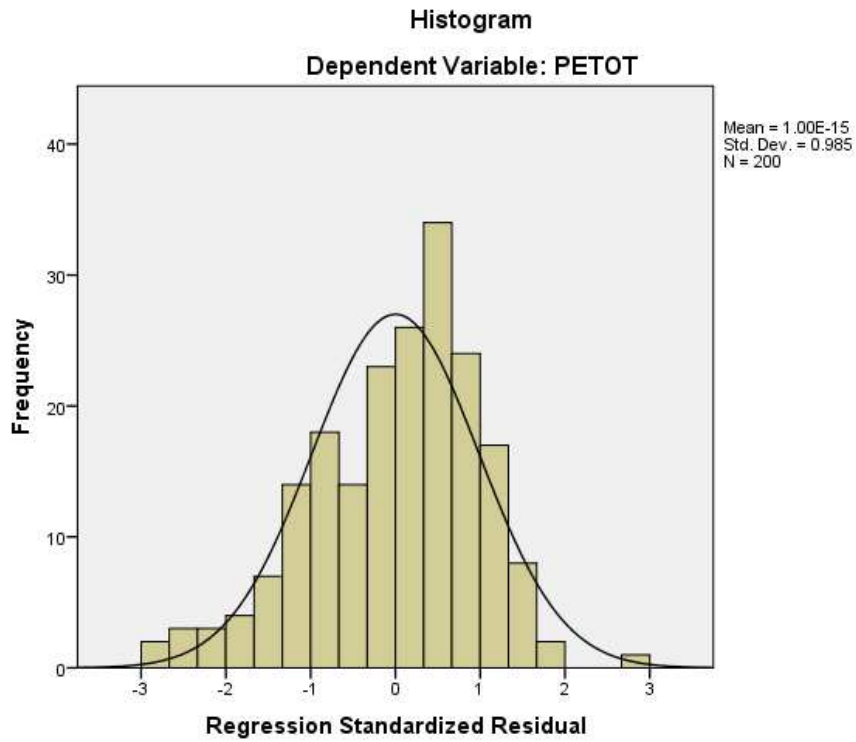


Figure 4. Histogram for professional efficacy.

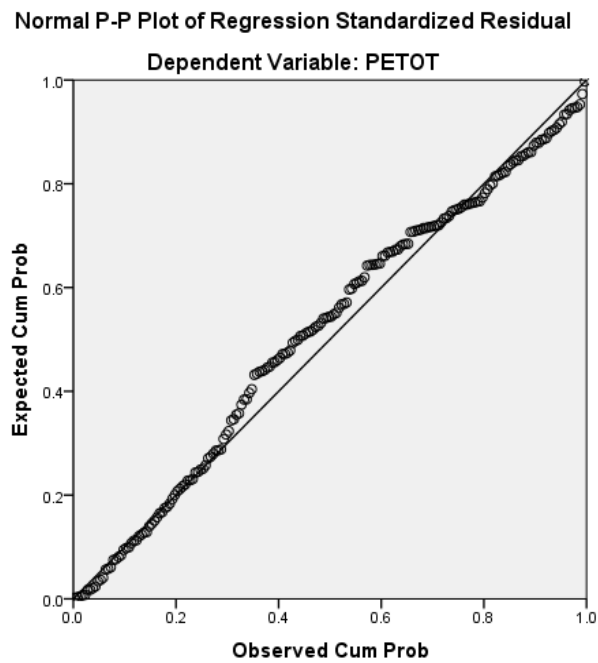


Figure 5. P-P plot for professional efficacy.



In the end, removing the outliers related to professional efficacy improved normality of the residuals and helped meet all of the multiple regression assumptions. Since none of the multiple regression assumptions were violated, multiple regression appeared appropriate for analyzing the sample of accounting professionals.

***Results of multiple regression.*** The results of the three separate multiple regression analyses are presented according to the research-question method of organization. This method displays results and explanations by omnibus research question and/or research subquestion. The multiple regression analysis and explanation that follow begins with investigating the omnibus research question and related hypothesis. This is shadowed by the research subquestion and corresponding subhypothesis to provide additional support for the omnibus research question. Based on the research and data analysis presented, the objective of either rejecting or accepting the null hypothesis for each hypothesis statement was achieved in the investigation.

*Omnibus research question.* To what degree do the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey (AWS) explain the variability of burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey (MBI–GS)?

*Hypotheses for the omnibus research question.* H<sub>0</sub>1: There is no significant linear relationship between the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey and burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey.

H<sub>A1</sub>: There is a significant linear relationship between the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey and burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey.

The variability between the areas of worklife and burnout demonstrated by the accounting professionals was assessed in the sample via three separate, standard multiple linear regressions using SPSS 23 software. A standard multiple linear regression was appropriate because the goal of the research study centered on the variance between predictor and criterion variables at the interval level (Zikmund et al., 2010). This statistical test involved the enter method in SPSS where all independent variables were entered simultaneously into the model. In the research study, the independent variables included workload, control, reward, community, fairness, and values and the dependent variables were exhaustion, cynicism, and professional efficacy.

The *F* test was used to determine collectively the predictability of the independent worklife variables on burnout, linearity, and model fit (Laerd Statistics, 2013). Additionally, the  $R^2$  (or the multiple correlation coefficient of determination) and the adjusted  $R^2$  values were employed to ascertain the degree of variability or how much of the variance in exhaustion, cynicism, and professional efficacy can be explained by the areas of worklife factors (Laerd Statistics, 2013). The *t* test was incorporated into the analysis as a way to assess the significance of the regression while beta coefficients helped determine the magnitude and direction of the overall relationships (Laerd Statistics, 2013). The results of the three separate multiple regression analyses appear in Tables 12 through 20 based on the reduced sample of 200 participants as a result of

removing outliers associated with the professional efficacy variable. Each set of regression analysis includes a model summary, an ANOVA summary, and a regression coefficients summary table.

Tables 12 through 14 examined the relationship between exhaustion and the six areas of worklife factors. As the information in Table 12 suggests, the six areas of worklife collectively predicted exhaustion with  $R^2 = .424$ ,  $R^2_{adj} = .406$ ,  $F(6, 193) = 23.647$ , and  $p = .000$ . Furthermore, the regression model indicated in Table 12, accounted for 42.4% of the variance in exhaustion, adjusted value equaled 40.6% of the variance. Table 13 presents the results of the ANOVA analysis, which demonstrates the linearity of the model. The  $F$  test is significant at  $p < .05$  suggesting a linear relationship between exhaustion and the six areas of worklife factors and a good model fit with the data.

Table 12. *Exhaustion and Areas of Worklife Model Summary*

$R$	$R^2$	Adjusted $R^2$	Std. error of the estimate
.651 <sup>a</sup>	.424	.406	1.326

Note.  $N = 200$ .

<sup>a</sup>Independent or predictor variables: (Constant), Values, Workload, Community, Control, Reward, Fairness.

<sup>b</sup>Dependent or criterion variable: Exhaustion.

Table 13. *Exhaustion and Areas of Worklife ANOVA Summary*<sup>a</sup>

Model	SS	df	MS	F	Sig.
Regression	249.628	6	41.605	23.647	.000 <sup>b</sup>
Residual	339.572	193	1.759		
Total	589.200	199			

Note. *N* = 200.

<sup>a</sup>Dependent or criterion variable: Exhaustion. <sup>b</sup>Independent or predictor variables: (Constant), Values, Workload, Community, Control, Reward, Fairness.

Table 14 displays the coefficient results. The *t* test indicates only the independent variables of workload and reward predicted exhaustion on an individual basis. Each significant area of worklife variable was negatively correlated with exhaustion. More specifically, the lower job–person fit (or lack of congruence) for the variables of workload and reward, the greater the level of cynicism. Conversely, the higher the job–person fit for the areas of workload and reward, the lower the experienced cynicism. An interesting finding, however, related to the coefficient of community. Even though the *t* test indicated no significance between the variable, the coefficient exhibited a positive relationship with exhaustion ( $B = .040$ ). Generally, as exhaustion increases, the level of community would decrease (Leiter & Maslach, 2011). This was not the normative result found in the research investigation. Perhaps this finding explains the high levels of congruency or job–person fit observed in Table 8.

Table 14. *Multiple Regression Analysis for Exhaustion<sup>a</sup>*

Model	B	Std. error	$\beta$	<i>t</i>	<i>p</i>	Partial <i>r</i>	Part <i>r</i>
Constant	7.578	.594		12.748	.000		
Workload	-.970	.132	-.462	-7.357	.000	-.468	-.402
Control	-.012	.146	-.006	-.081	.936	-.006	-.004
Reward	-.472	.147	-.278	-3.218	.002	-.226	-.176
Community	.040	.171	.019	.235	.815	.017	.013
Fairness	-.061	.172	-.033	-.356	.722	-.026	-.019
Values	-.059	.165	-.028	-.358	.721	-.026	-.020

Note. *N* = 200.

<sup>a</sup>Dependent Variable: Exhaustion.

Tables 15 through 17 looked at the relationship between cynicism and the six areas of worklife factors. As the information in Table 15 reveals, the six areas of worklife collectively predicted cynicism with  $R^2 = .387$ ,  $R^2_{adj} = .368$ ,  $F(6, 193) = 20.276$ , and  $p = .000$ . Overall, the regression model indicated in Table 15, accounted for 38.7% of the variance in cynicism, adjusted value equaled 36.8% of the variance.

Table 16 presents the results of the ANOVA analysis focusing on the linearity of the regression model. The *F* test is significant at  $p < .05$  insinuating a linear relationship between cynicism and the six areas of worklife factors and a good model fit with the data. Table 17 displays the coefficient results and similar to exhaustion, both workload and reward predicted cynicism on an individual basis. These two variables were negatively correlated with exhaustion, which means a negative or inverse relationship was demonstrated between workload and reward and cynicism among the sample of

accounting professionals. As cynicism increased, the levels of workload and reward had the opposite effect resulting in a poor job–person fit scenario. However, the coefficient relating to community indicated a positive relationship. This finding was similar to exhaustion in that as cynicism increased the community an individual experienced in the workplace increased. The normative results defined the cynicism–community relationship as a negative relationship (Leiter & Maslach, 2011).

Table 15. *Cynicism and Areas of Worklife Model Summary<sup>b</sup>*

<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	Std. error of the estimate
.622 <sup>a</sup>	.387	.368	1.354

Note. *N* = 200.

<sup>a</sup>Independent or predictor variables: (Constant), Values, Workload, Community, Control, Reward, Fairness.

<sup>b</sup>Dependent or criterion variable: Cynicism.

Table 16. *Cynicism and Areas of Worklife ANOVA Summary<sup>a</sup>*

Model	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
Regression	222.972	6	37.162	20.276	.000 <sup>b</sup>
Residual	353.729	193	1.833		
Total	576.701	199			

Note. *N* = 200.

<sup>a</sup>Dependent or criterion variable: Cynicism. <sup>b</sup>Independent or predictor variables: (Constant), Values, Workload, Community, Control, Reward, Fairness.

Table 17. *Multiple Regression Analysis for Cynicism<sup>a</sup>*

Model	B	Std. error	$\beta$	<i>t</i>	<i>p</i>	Partial <i>r</i>	Part <i>r</i>
Constant	7.291	.607		12.017	.000		
Workload	-.594	.135	-.286	-4.411	.000	-.303	-.249
Control	-.106	.149	-.054	-.712	.477	-.051	-.040
Reward	-.638	.150	-.380	-4.262	.000	-.293	-.240
Community	.226	.174	.108	1.300	.195	.093	.073
Fairness	-.104	.176	-.056	-.590	.556	-.042	-.033
Values	-.199	.168	-.095	-1.183	.238	-.085	-.067

Note. *N* = 200.

<sup>a</sup>Dependent or criterion variable: Cynicism.

Tables 18 through 20 explored the relationship between professional efficacy and the six areas of worklife factors. The information in Table 18 indicates the six areas of worklife collectively predicted exhaustion with  $R^2 = .333$ ,  $R^2_{adj} = .312$ ,  $F(6, 193) = 16.069$ , and  $p = .000$ . With this data, the regression model indicated in Table 18, accounted for 33.3% of the variance in professional efficacy, adjusted value equaled 31.2% of the variance.

Table 19 reveals the results of the ANOVA analysis. The *F* test is significant at  $p < .05$  demonstrating a linear relationship between professional efficacy and the six areas of worklife factors and a good model fit with the data. Table 19 displays the coefficient results and the areas of worklife variables of control, reward, and fairness produced significant findings. In other words, each of those three variables predicted professional on an individual level. As expected, both areas of worklife variables of control and

reward were positively correlated with professional efficacy. More specifically, as control and reward increased, so did an individual's professional efficacy on the job.

Interestingly enough, fairness was significant at predicting professional efficacy on an individual basis, however, the regression coefficient highlighted a negative relationship with the dependent variable. This finding was not expected and insinuates as the level of fairness increased, the level of professional efficacy decreased among the sample of accounting professionals. This goes against normative results, which indicates an increase in professional efficacy or a positive relationship (Leiter & Maslach, 2011).

Table 18. *Professional Efficacy and Areas of Worklife Model Summary<sup>b</sup>*

<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	Std. error of the estimate
.577 <sup>a</sup>	.333	.312	.801

Note. *N* = 200.

<sup>a</sup>Independent or predictor variables: (Constant), Values, Workload, Community, Control, Reward, Fairness.

<sup>b</sup>Dependent or criterion variable: Professional Efficacy.

Table 19. *Professional Efficacy and Areas of Worklife ANOVA Summary<sup>a</sup>*

Model	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
Regression	61.815	6	10.303	16.069	.000 <sup>b</sup>
Residual	123.742	193	.641		
Total	185.557	199			

Note. *N* = 200.

<sup>a</sup>Dependent or criterion variable: Professional Efficacy. <sup>b</sup>Independent or predictor variables: (Constant), Values, Workload, Community, Control, Reward, Fairness.



Table 20. *Multiple Regression Analysis for Professional Efficacy<sup>a</sup>*

Model	B	Std. error	$\beta$	<i>t</i>	<i>p</i>	Partial <i>r</i>	Part <i>r</i>
Constant	2.573	.359		7.171	.000		
Workload	.024	.080	.020	.303	.762	.022	.018
Control	.532	.088	.478	6.036	.000	.398	.355
Reward	.309	.089	.324	3.484	.001	.243	.205
Community	.027	.103	.023	.263	.793	.019	.015
Fairness	-.334	.104	-.317	-3.216	.002	-.226	-.189
Values	.065	.099	.055	.658	.511	.047	.039

Note. *N* = 200.

<sup>a</sup>Dependent or criterion variable: Professional Efficacy.

Although some interesting findings were discovered by performing multiple regression analysis, the *F* test for each predictor–criterion variable pair was significant at  $p < .05$ , indicating a linear relationship between the three variables of burnout and the six areas of worklife factors for the regression and a good model fit on a total basis. At the individual level, significance was only found between workload and reward for both exhaustion and cynicism; significance was also discovered between control, reward, fairness and professional efficacy. Based on the findings, support was found for the alternative hypothesis in that there appears a significant linear relationship between the areas of worklife variables using the AWS and burnout levels experienced by accounting professionals using the MBI–GS instrument for the multiple regression as a whole, including at the variable level.

*Research subquestion.* Is there a correlation between the six areas of worklife variables (workload, control, reward, community, fairness, and values) and burnout variables (exhaustion, cynicism, and professional efficacy) as measured by the AWS and MBI-GS, respectively?

A subhypothesis was created for Hypothesis 1 to fully examine the research subquestion and hypothesis:

SubH<sub>0</sub>1: There is no significant correlation between the areas of worklife variables and burnout levels experienced by accounting professionals.

SubH<sub>A</sub>1: There is a significant correlation between the areas of worklife variables and burnout levels experienced by accounting professionals.

The examination of burnout and the influence of the work environment incorporated an omnibus research question that explored the variability between the areas of worklife and the burnout variables of exhaustion, cynicism, and professional efficacy. To that end, a Pearson correlation coefficient test was included not only to assess multicollinearity, but also to determine if a possible relationship existed between the predictor and criterion variables in the research study. The correlation analysis for each burnout variable was performed separately and represents the analysis for the subhypothesis under the research subquestion. The correlational analysis was based on the reduced sample of 200 participants, which excluded the outliers related to professional efficacy. The correlation results between exhaustion, cynicism, and professional efficacy and the six areas of worklife (workload, control, reward, community, fairness, and values) are presented in Table 21.

Table 21. *Correlation Between Burnout and Areas of Worklife*

Subscale	Workload	Control	Reward	Community	Fairness	Values
Exhaustion	-.59**	-.34**	-.49**	-.31**	-.43**	-.29**
Cynicism	-.47**	-.38**	-.54**	-.33**	-.46**	-.38**
Professional efficacy	.19**	.52**	.42**	.33**	.25**	.33**

Note.  $N = 200$ .

\*\*Correlation is significant at  $p < .01$ , two-tailed.

The results in Table 21 indicate a significant relationship between exhaustion and the six areas of worklife ( $p < .01$ , two-tailed) including workload ( $r = -.59$ ), control ( $r = -.34$ ), reward ( $r = -.49$ ), community ( $r = -.31$ ), fairness ( $r = -.43$ ), and values ( $r = -.29$ ).

The data suggests a negative relationship with the majority of the correlations in the small to medium range (J. Cohen, 1988, 1992). However, the one relationship that exhibited the largest relationship was the correlation between exhaustion and workload ( $r = -.59$ ; J.

Cohen, 1988, 1992). In other words, the results imply that as exhaustion increases, the amount of workload diminishes to a greater degree than other areas of worklife variables.

Yet, the results provide moderate evidence that with increases in the exhaustion variable comes less control over one's job, reduced reward, a lack of community, a negative view of fairness, and a conflict of values among the population of accounting professionals.

These correlational results are consistent with normative findings (Leiter & Maslach, 2011).

Additionally, the results in Table 21 indicate a significant relationship between cynicism and the six areas of worklife ( $p < .01$ , two-tailed) including workload ( $r = -.47$ ),

control ( $r = -.38$ ), reward ( $r = -.54$ ), community ( $r = -.33$ ), fairness ( $r = -.46$ ), and values ( $r = -.38$ ). The data suggests a negative relationship with the majority of the areas of worklife variables demonstrating a medium strength of association (J. Cohen, 1988, 1992). Nevertheless, the correlation between cynicism and reward ( $r = -.54$ ) suggests the largest association (J. Cohen, 1988, 1992). Therefore, as cynicism increases, reward diminishes. The results also imply that as cynicism increases, the individual in the work environment may experience reduced workload, less control and autonomy on the job, a lowered sense of community, fairness issues, and value conflicts. Similar to exhaustion, these correlations are indicative of the relationships found in normative samples (Leiter & Maslach, 2011). The sample of accounting professionals appeared to experience these latter areas of worklife variables to a lesser degree than the reward variable.

Furthermore, the results in Table 21 indicate a significant relationship between professional efficacy and the six areas of worklife ( $p < .01$ , two-tailed) including workload ( $r = .19$ ), control ( $r = .52$ ), reward ( $r = .42$ ), community ( $r = .33$ ), fairness ( $r = .25$ ), and values ( $r = .33$ ). The data suggests a positive relationship with the majority of the correlations exhibiting a small to medium strength of association (J. Cohen, 1988, 1992). However, control exhibited the largest association ( $r = .52$ ; J. Cohen, 1988, 1992). Overall, the results imply that as professional efficacy increases, the work environment improves with additional workload and responsibilities, more control and autonomy on the job, additional reward, more community, experienced fairness, and congruent values between the individual and the organization. Similar to both exhaustion and cynicism, these correlations agree with normative findings (Leiter & Maslach, 2011).

Based on the correlational results presented in Table 21, there appears a significant correlation between the areas of worklife variables and burnout levels experienced by accounting professionals in the sample. Therefore, the null statement of Subhypothesis 1 was rejected because the results provided evidence there exists a significant correlation between the areas of worklife variables and burnout levels experienced by accounting professionals with stronger associations between the exhaustion–workload ( $r = -.59$ ), cynicism–reward ( $r = -.54$ ), and professional efficacy–control ( $r = .52$ ) relationships (J. Cohen, 1988, 1992).

### Summary

The current research study concentrated on the relationship between burnout and the influence of specific areas of the work environment on the phenomenon. The omnibus research question asked, To what degree do the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey (AWS) explain the variability of burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey (MBI–GS)? This omnibus research question represents both an explanatory and prediction-based element to aid in understanding the relationship between burnout and the work environment among accounting professionals. Multiple regression analysis between the areas of worklife and the burnout variables of exhaustion, cynicism, and professional efficacy assisted in providing a more in-depth understanding of these relationships.

The results demonstrated the exhaustion and cynicism regression models explained 42.4% (adjusted value of 40.6%) and 38.7% (adjusted value of 36.8%) of the

variability ( $R^2$ ) of burnout levels experienced by the sample of accounting professionals centering on higher beta coefficients for both the areas of worklife factors of workload and reward. Conversely, professional efficacy explained 33.3% (adjusted value of 31.2%) of the variation concentrating on lower beta coefficients for control, reward, and fairness. As these findings indicate and based on the ANOVA analysis, support was found for the alternative hypothesis relating to the omnibus research question.

A research subquestion followed to help further investigate the omnibus research question. The research subquestion asked, Is there a correlation between the six areas of worklife variables (workload, control, reward, community, fairness, and values) and burnout variables (exhaustion, cynicism, and professional efficacy) as measured by the AWS and MBI-GS, respectively? Pearson correlation coefficient analysis not only provided support for specific multiple regression assumptions, but also demonstrated the strength and magnitude of the relationship between burnout and the work environment.

The results of the Pearson correlation coefficient analysis revealed a significant relationship between the variables of burnout (exhaustion, cynicism, and professional efficacy) and the six areas of worklife variables (workload, control, reward, community, fairness, and values). More specifically, the data suggests overall that a significant negative relationship exists in the medium range of strength for cynicism while both exhaustion and professional efficacy exhibited a small to medium negative/positive level of association with the majority of the areas of worklife variables (J. Cohen, 1988, 1992). On an individual level, the greatest correlations and largest strength of association occurred among the exhaustion–workload ( $r = -.59$ ), the cynicism–reward ( $r = -.54$ ), and the professional efficacy–control relationships ( $r = .52$ ). This evidence implies that as

exhaustion and cynicism increased among the sample of accounting professionals, the level of workload and reward decreased. The opposite appears true for professional efficacy and control. As control of one's work environment increases, so does professional efficacy. The correlational results revealed significant relationships between burnout and the work environment, which provided evidence for the alternative hypothesis statement for Subhypothesis 1 under the research subquestion. In summary, both multiple regression analysis and the Pearson correlation coefficient analysis helped fully assess the hypothesis and subhypothesis statements in the research study. Chapter 5 presents a discussion of these findings in detail.

## **CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS**

### **Introduction**

Accounting professionals experience burnout due to increased pressure, which may result in turnover and reduced engagement on the job (Eastman, 1996; Lackritz, 2004). Since human capital helps drive organizational performance, it becomes essential to understand how to improve employee retention in the accounting profession (Kennedy, 2013). Moreover, this understanding may extend to areas of burnout prevention such as improving resource management to augmenting employee worklife balance. Therefore, it is important to continue exploring and discussing employee burnout potential and the causes of the phenomenon.

The intent of the current investigation was to investigate the relationship between the work environment and burnout, namely how factors of the work environment influence the burnout condition. More specifically, the purpose of this quantitative, exploratory research was to apply the tenets of the COR theory (Alarcon et al., 2011; De Cuyper, Raeder, van der Heijden, & Wittekind, 2012; Gregory & Menser, 2015; Hobfoll, 1989; Niebusch, 2012) towards understanding the relationship between the six areas of worklife as defined by the AWS (Leiter & Maslach, 2000) and three variables of burnout as measured by the MBI-GS (Schaufeli et al., 1996) among U.S. accounting professionals.



The independent variables of the areas of worklife signify the “demands and resource predictors” (Lee & Ashforth, 1996, p. 123) of the work environment and were measured by the AWS. For the research study, workload was linked to demand predictors while the areas of worklife variables of control, reward, community, fairness and values were considered resource predictors for accounting professionals within the COR theoretical framework. The MBI–GS instrument measured the dependent variables of burnout, including exhaustion, cynicism, and professional efficacy. The overall expectation was that the demand and resource predictors might possibly exhibit a relationship with the burnout condition as experienced by accounting professionals in the sample.

As the closing chapter, the primary goal of Chapter 5 is to provide an overview and detailed discussion of the research study and apply the results from Chapter 4 to relevant literature brought forth in Chapter 2. Chapter 5 provides an interpretation of the research findings within the proposed conceptual framework, identifies and explains the implications of the findings for both scholars and practitioners, and presents recommendations for areas of further study based on the findings. Chapter 5 concludes with an overall summary of the research, including the realization of the objectives for the investigation followed by additional insight into how the research study advances current thought on burnout among accounting professionals.

### **Summary of the Results**

The research study is significant because it highlights burnout among accounting professionals, which is an area not well explored in the behavioral accounting and

accounting research literature. Additionally, the current research builds upon and enhances prior burnout studies through a theoretical/conceptual framework (i.e., COR theory). COR theory was employed to help understand and explain the relationship of the work environment with burnout among a sample of accounting professionals.

The three variables of burnout investigated were exhaustion, cynicism, and professional efficacy as measured by the MBI–GS and the assessment of the work environment included specific areas of worklife (workload, control, reward, community, fairness, and values) as operationalized through the AWS. The MBI–GS represents the most cited survey in burnout studies (De Silva et al., 2009) and with the AWS, the influences or antecedents of burnout in the workplace were ascertained. A quantitative, nonexperimental research design was employed to examine the importance of burnout among accounting professionals.

The omnibus research question asked, To what degree do the six areas of worklife variables (workload, control, reward, community, fairness, and values) using the Areas of Worklife Survey (AWS) explain the variability of burnout levels experienced by accounting professionals using the Maslach Burnout Inventory–General Survey (MBI–GS)? The results demonstrated that all three of the regression models explained the variability ( $R^2$ ) of burnout levels experienced by the sample of professional accountants. More specifically, while the exhaustion and cynicism regression models explained 42.4% (adjusted value of 40.6%) and 38.7% (adjusted value of 36.8%) of the variability of burnout levels, the regression model for professional efficacy explained 33.3% (adjusted value of 31.2%). These findings are considered at the moderate or medium level (J. Cohen, 1988, 1992). The ANOVA tests for the three regression models revealed

significance and scatterplot diagrams of the residuals against the predicted values and partial regression plots established linearity among the independent and dependent variables. The greatest contributors to explaining both exhaustion and cynicism emanated from workload and reward. Professional efficacy was best explained by the areas of worklife variables of control and reward. A research subquestion was posed to further explore the omnibus research question.

The research subquestion asked, Is there a correlation between the six areas of worklife variables (workload, control, reward, community, fairness, and values) and burnout variables (exhaustion, cynicism, and professional efficacy) as measured by the AWS and MBI-GS, respectively? The Pearson correlation coefficient analysis indicated a significant relationship between the variables of burnout and the six areas of worklife variables. More specifically, the findings revealed a significant negative relationship between the areas of worklife variables and the burnout variables of exhaustion, cynicism, and a positive relationship with professional efficacy. In particular, the greatest level of significance and strength of association occurred among the exhaustion–workload ( $r = -.59$ ), the cynicism–reward ( $r = -.54$ ), and professional efficacy–control ( $r = .52$ ) relationships indicating a moderate to large association. However, as indicated by J. Cohen (1992) correlation conventions, the relationships are considered large associations. Overall, these findings support the alternative hypotheses for both the omnibus research question and research subquestion. However, these findings do not provide an explanation for the observed levels of cynicism and levels of congruence or job–person fit scores noted in the sample. Nevertheless, the findings reveal the importance of examining burnout and its antecedents among accounting professionals.

## **Discussion of the Results**

The purpose of the research study was to explore the relationship between burnout and the work environment. Of particular interest, the goal was to determine the work environment's influence on the burnout condition. The MBI-GS was used to assess the three areas of burnout (exhaustion, cynicism, and professional efficacy) and the AWS helped examine the work environment concentrating on workload, control, reward, community, fairness, and values as the “demands and resource predictors” (Lee & Ashforth, 1996, p. 123) of the work environment. The omnibus research question focused on the variability of the relationship and the research subquestion contemplated the correlation or association between burnout and the areas of worklife. COR theory was used to interpret the results.

Hobfoll (1989) developed the theoretical framework of COR theory to help explain how the loss of resources influences behavior. In the context of the research investigation, COR theory provided the vehicle to explain the effect the work environment has on burnout as experienced by accounting professionals. The theory is primarily based on the premise of resource loss where individuals accumulate additional resources to mitigate negative consequences. Simply put, in stressful work environments, this basis of supplementary resources helps protect against losses in resources such as self-esteem, employment experience, and knowledge (Halbesleben et al., 2014; Hobfoll, 1989; Hobfoll & Freedy, 1993).

### **Observed Burnout Scores**

The typical burnout scenario among the variables is represented by elevated levels of exhaustion and cynicism with decreased professional efficacy (Maslach et al., 1996).

However, the sample of accounting professionals did not demonstrate burnout according to this standard. A large segment of the sample exhibited both low levels of exhaustion (i.e., 46.00% demonstrated a score of 10 or less on the MBI–GS) and high levels of professional efficacy (i.e., 59.50% demonstrated a score of 30 or more on the MBI–GS) with high levels of cynicism (i.e., 53.50% demonstrated a score of 11 or more on the MBI–GS). This evidence is not indicative of the typical burnout scenario when considering all three variables. Nevertheless, when one incorporates the high level of cynicism experienced in the sample on an individual basis, the prevalence of burnout was present (Maslach & Leiter, 2008). An equivalent outcome resulted when comparing the prevalence of burnout under mean scores with exhaustion and professional efficacy in the moderate level of burnout and cynicism in the high level. In relationship to normative mean data, independent *t* tests produced in conjunction with the multiple regression analysis revealed significant differences among all three variables of burnout. Therefore, the evidence provides partial support of the burnout condition among the sample of accounting professionals.

### **Observed Work Environment Scores**

When examining the areas of worklife variables, the findings overwhelmingly indicated that more than half the sample (in some cases, over 70%) did not experience a level of mismatch or negative job–person fit, but rather a congruent relationship between themselves and the work environment. Consequently, the findings suggest the six areas of worklife variables failed to influence burnout among the sample of accounting professionals. Additionally, there was no evidence to the contrary when comparing the sample means to normative data. This normative comparison supported the high levels of

exhaustion, professional efficacy, and the degree of workplace congruence, but not the high levels of cynicism. These findings indicate that perhaps other variables outside the AWS may be influencing the observed cynicism scores among the sample of accounting professionals. Beyond descriptive statistics, multiple regression was then used to further the understanding of the relationships between burnout and the areas of worklife variables by assessing their variability and related correlations.

### **Variability Between MBI–GS and AWS**

The omnibus research question concentrated on the degree of variability between the areas of worklife and burnout. That is, to what extent did the independent variables explain the burnout experience among the sample of accounting professionals? Collectively, the areas of worklife variables explained 42.4% (adjusted value 40.6%), 38.7% (adjusted value 36.8%), and 33.3% (adjusted value 31.2%) of the variability in exhaustion, cynicism, and professional efficacy, respectively. According to J. Cohen's (1992) conventions, all three multiple regressions represent medium  $R^2$  values or medium effect sizes. Therefore, the evidence suggests that the observed variability in burnout scores is due to the combined influence of the six areas of worklife. Therefore, these findings support the alternative hypothesis. Additionally, the ANOVA analysis, specifically the  $F$  test, was significant for each of the three burnout variables insinuating a linear relationship between burnout and the work environment among the sample of accounting professionals and a good model fit with the data. This provides further support that collectively the areas of worklife explained the variability in exhaustion, cynicism, and professional efficacy.

On an individual basis, the greatest contribution as indicated by the regression coefficients for both the exhaustion and cynicism regressions originated from workload and reward (negative relationships). This means as the amount of workload decreases, which insinuates a lack of congruence or job–person fit, the greater degree of exhaustion experienced by the sample of accounting professionals. Similarly, as reward decreases, accounting professionals exhibit a higher level of cynicism. The largest contribution as indicated by the regression coefficients of the professional efficacy regression were control and reward (positive relationships). Simply put, as control and reward increases leading to more congruence in the workplace, the higher the professional efficacy exhibited by the respondents.

The evidence for both exhaustion and professional efficacy regressions appear to explain the observed levels of congruence associated with workload (59.50%), control (80.50%), and reward (57.50%) among the sample of accounting professionals (see Table 8). However, these findings do not explain the observed levels of cynicism experienced by the respondents (see Table 5), which suggests other variables outside the areas of worklife may clarify the reasons for the high degree of cynicism in the sample. Nevertheless, as suggested by Maslach and Leiter (2008), this semblance of inconsistency with cynicism represents an early indicator of burnout.

### **Correlation Between MBI–GS and AWS**

The research subquestion focused on the direction and strength of the relationship or simply put, the correlation between the areas of worklife and burnout. More specifically, the null and alternative subhypotheses that accompanied the research subquestion examining correlation stated:

SubH<sub>01</sub>: There is no significant correlation between the areas of worklife variables and burnout levels experienced by accounting professionals.

SubH<sub>A1</sub>: There is a significant correlation between the areas of worklife variables and burnout levels experienced by accounting professionals.

A significant relationship was found between all of the areas of worklife and the burnout variables of exhaustion, cynicism, and professional efficacy with a medium to large strength of association. Using J. Cohen's (1992) guidelines for evaluating the strength of a correlation, the largest correlations (0.50 or larger) were found between exhaustion–workload ( $r = -.59, p < .01$ ), cynicism–reward ( $r = -.54, p < .01$ ), and professional efficacy–control relationships ( $r = .52, p < .01$ ). Similar to the results of the multiple regression analysis, the evidence from the Pearson correlation coefficient analysis supports the alternative hypothesis for the research subquestion. Nonetheless, the results failed to explain the observed cynicism levels noted by the sample of accounting professionals. Moreover, none of the AWS variables appeared to influence burnout given that more than 50% or a majority of the sample experienced a congruent relationship with the work environment or a positive job–person fit. This corroborates the contention with the multiple regression analysis there exists other variables external to the areas of worklife variables that may provide some explanation.

### **Connections to COR Theory**

COR theory maintains that individuals have an inherent motivation “to obtain, retain, and protect that which they value” (Shirom, 2003, p. 9). As a result, when stress arises, COR theory predicts people will attempt to mitigate resource loss (Halbesleben et al., 2014; Hobfoll, 1989; Hobfoll & Freedy, 1993). The theory centers on the concept of



resource loss and the motivation behind maintaining resources to mitigate stress and eventually burnout. In other words, resource depletion appears to enhance the prevalence of burnout (Shirom, 2003).

The AWS variables, with the exception of workload, were viewed as resources that individuals may use to help mitigate stress and ultimately, the burnout condition. Although workload is not a specific resource, the variable represents those job demands that may influence available resources, namely control, reward, community, fairness, and values. These variables are important in ascertaining the level of mismatch/congruence or job–person fit in the work environment (Halbesleben et al., 2014) and signify precursors of the burnout condition (Leiter & Maslach, 2011). These are important considerations when analyzing the burnout condition (Lindblom et al., 2006), especially when resource loss and misallocation of resources may lead to poor decision making, deficient business outcomes (Halbesleben et al., 2014), and burnout (Reinardy, 2013).

Burnout is a multidimensional construct (Maslach et al., 1996) and therefore, each burnout variable must be considered separately to assess the burnout condition (Maslach et al., 1996; Phronebarger, 2014). The current investigation identified a high level of cynicism among the sample of accounting professionals with low levels of exhaustion and high professional efficacy scores. From a COR perspective, the sample of accounting professionals did not experience resource loss and exhibited exhaustion and professional efficacy scores that indicate possible resource attainment. The degree of cynicism, however, noted in the sample implied that burnout was present, however, no evidence was found among the areas of worklife variables to help explain these observations. Even though the areas of worklife variables of workload and especially reward appeared to

statistically explain cynicism levels, the actual cynicism scores among the sample indicated the possible involvement of other resources not considered in this investigation. From a statistical standpoint, however, the current investigation did highlight some potential resources to bear in mind when contemplating burnout.

Resources provide employees with the means to accomplish goals, objectives, and a way for self-preservation (Campbell et al., 2013). Often these resources represent value-added components that facilitate change, provide additional resources (Alvaro et al., 2010), and act as coping mechanisms (Gupta et al., 2012). COR theory suggests companies consider job resources to help mitigate resource loss. The investigation found evidence that highlights the importance among specific resources focusing on the exhaustion–workload, cynicism–reward, and professional efficacy–control relationships. This suggests a work environment of accounting professionals that refrains from a manageable workload, deemphasizes reward, and diminishes control may ultimately lead to burnout (Leiter & Maslach, 2011).

The concept of workload equates with job demands where additional workload may lead to a more congruent work environment or job–person fit (Leiter & Maslach, 2011). The concept of reward “addresses the extent to which rewards—monetary, social, and intrinsic—are consistent with expectations” (Leiter & Maslach, 2011, p. 5). Reward refers to both extrinsic (e.g., bonuses) and intrinsic (e.g., self-confidence, pride) rewards obtained through individual contribution in the workplace (Leiter & Maslach, 2011). A mismatch may occur if individuals experience a lack of recognition for their contributions. The concept of control aligns with the practice of accountability. Control gives individuals power over job duties, which makes them accountable for their work

(Leiter & Maslach, 2011). In this sense, more control leads to less of a mismatch and more congruency between the person and the work environment. This situation appears valid when COR theory is applied to the accounting profession.

The role of the accounting professional has changed and requires a new set of competencies (i.e., resources) to remain competitive in the workplace. Ultimately, this change necessitates training and an even more demanding workload (Ozkan & Ozdevecioğlu, 2013). Accounting professionals, especially audit and tax professionals, work long hours affecting the ability to work effectively and efficiently leading to burnout and reduced engagement. Accounting professionals deal with more real-time information and additional responsibilities with limited resources (The Pathways Commission, 2012). As COR theory stipulates, resource loss can either motivate individuals to augment resource gain or fall into a resource loss spiral (Gorgievski & Hobfoll, 2008; Shirom, 2003). In other words, whether conscious of their surroundings or not, the individual eventually gives up and succumbs to the loss.

As the evidence in the current investigation suggests, if accounting professionals give into the loss spiral due to a lack of workload balance, a lack of employer support or reward, and a lack of control, burnout may result. COR theory also postulates the need for resource investment to protect against resource loss. In this sense, low resource investment leads to further resource loss and vice versa. Nevertheless, this whole behavioral process to burnout is a long-term process that evolves over time. While the time element was not specifically addressed in the current investigation, burnout was evidenced due to the high levels of cynicism reported and the years of experience indicated by some respondents. As a result, a potential connection appears to exist

between time and burnout among accounting professionals. This evidence further suggests the strong linkage between burnout among accounting professionals and the essence of COR theory.

### **Implications of the Study Results**

The research study focused on the essential argument that reduced resources increased the likelihood of burnout. As “demands and resource predictors” (Lee & Ashforth, 1996, p. 123), an increase or decrease in any of the AWS variables would result in burnout. More specifically, if an accounting professional experienced increased workload and/or diminished control, reward, community, fairness, and values job burnout would ensue and ultimately lead to poor work quality, low engagement, poor business outcomes, and high turnover (Fogarty et al., 2000, A. Jones et al., 2012; A. Jones et al., 2010; Reinardy, 2013). This association among accounting professionals and burnout has been noted in the literature (Fogarty et al., 2000; A. Jones et al., 2012; A. Jones et al., 2010). The current investigation found evidence that provides consistency for this relationship between burnout and the work environment as identified by accounting professionals in the sample.

### **Theoretical Implications**

COR theory considers burnout a chronic condition that occurs gradually over time in the form of resource loss (Gorgievski & Hobfoll, 2008). Resource loss may lead to inadequate decision making and lost opportunities for improvement such as the most optimal job–person fit (Halbesleben et al., 2014). Burke (1989) contended that one of the focal points of stress in the workplace is loss. Some examples included mergers and

acquisition, company reorganizations, and employee insecurity all of which downsizes the workforce and/or has the potential to reduce the job availability (Hobfoll & Freedy, 1993). The results of the research study support the contention that low resources (in the form of the areas of worklife variables) may ultimately lead to burnout. More specifically, resource depletion appeared to enhance the prevalence of burnout (Shirom, 2003). This was an accurate interpretation based on the statistical analysis. Nevertheless, these results failed to explain the results of the observed scores of cynicism among the sample. The relationship that appears to provide an answer was the cynicism–reward relationship.

In the case of accounting professionals, perhaps the work environment did not provide the necessary reward structure (extrinsic rewards) or measure of gratitude (intrinsic rewards) that would effectively offset the burnout condition. This means when accounting professionals experience reduced reward, the resulting outcomes (e.g., job quality) might not prove beneficial and as a result, performance on the job may suffer. As Fogarty et al. (2000) discovered investigating auditor burnout; job burnout was significantly correlated with low job performance. Guthrie and Jones (2012) surmised that burnout is linked to “a declining spiral” (p. 392) when a lack of control and self-confidence breaks down. Although not directly stated, the results imply that heightened cynicism may play a role in this “declining spiral” (Guthrie & Jones, 2012, p. 392). From a COR standpoint, this suggests that deficiencies of control in one’s job and a lack of self-confidence (i.e., elevated cynicism) results in resource loss without the resource gains to help mitigate the overall loss. In essence, the cynicism–reward relationship may foreshadow the burnout condition and understanding this relationship may in fact

improve job quality, a concept that incorporates “job variety, significance, autonomy, feedback from coworkers, and feedback from the job itself” (Reinardy, 2013, p. 18). Therefore, the research investigation revealed some evidence supporting the basic premise of COR theory that when resources are low or diminished, burnout might ensue to a certain degree (Hobfoll & Freedy, 1993; Reinardy, 2013). Notwithstanding, COR theory is an important consideration because the theory has the potential in helping identify the burnout condition.

### **Organizational Implications**

The observed values for both exhaustion and professional efficacy indicated the absence of burnout and a more congruent relationship with the work environment. In addition, statistical significance was found for exhaustion, cynicism, and professional efficacy with the areas of worklife variables collectively. Nevertheless, the observed levels of cynicism were rather inconsistent with normative values, especially exhaustion, which insinuates burnout (Maslach & Leiter, 2008). This was the most interesting finding given the observed values of cynicism and the result with the greatest implications for organizations based on the research study.

The prevalence of burnout among the sample centered around cynicism with a regression model explaining 38.7% (adjusted value of 36.8%) of the variance in burnout levels. Both workload and reward were found to be significant predictors of cynicism. This finding suggests that among accounting professionals, burnout may exist as the result of both the actual nature of the work (i.e., workload) and the rewards of job performance or rewards of doing the job. However, reward exhibited a larger negative correlation with cynicism ( $r = -.54$ ) than workload ( $r = -.47$ ) using Pearson correlation

coefficient. More specifically, the lower the degree of congruence or job–person fit with the work environment (i.e., lower reward), the greater level of cynicism experienced by participants in the sample. Since there is an established link between resources and cynicism in the literature (Demerouti et al., 2000; Maslach et al., 1996), as a resource, reward appears to affect the burnout condition where cynicism is concerned. This finding within the relationship between burnout and the work environment is also consistent with COR theory.

Given that a large amount of accounting professionals in the sample experienced high levels of cynicism (53.50%), the significant relationship between cynicism and reward ( $p < .000$ ), and the large correlation noted among both variables ( $r = -.54$ ), employers should give more attention to both extrinsic and intrinsic rewards and expend effort to make employees feel more satisfied with the workplace. Leiter and Maslach (2011) indicated, “An enjoyable workflow supports both psychological well-being and physical health, and is also the source of recognition from others” (p. 5). The current investigation and existing research (e.g., Chappell & Novak, 1992; Maslanka, 1996) demonstrate that lack of rewards (a resource loss) may augment one’s susceptibility to burnout in the form of prolonged cynicism and burnout.

### **Limitations**

In research investigations, the documenting of design limitations presents the findings in context and provides an element of credibility to the investigation (Brutus, Aguinis, & Wassmer, 2013). The findings of the current research study are subject to certain limitations centering on the validity of the research design, and other

methodological, statistical, and theoretical issues including the reliability of the employed instruments, sample determination and focus, the use of a self-reported online questionnaire, the Hawthorne effect, and the use of a single theory to help explain the results. These limitations need consideration in light of interpreting the findings.

According to Phillips (1987), “In general it must be recognized that there are no procedures that will regularly (or always) yield either sound data or true conclusions” (p. 21). This accuracy (or validity) statement extends to both quantitative and qualitative research. As a result, precautions are needed to ensure and address validity concerns surrounding the reasonableness of the research design, including procedures performed and sample selection. The threats to both internal and external validity fall under limitations within a research design.

The primary threat to internal validity from a quantitative standpoint concentrates on inaccuracies that may lead to faulty reasoning and conclusions (Vogt, 2007). For example, the sample provided by SurveyMonkey was based on certain criteria predisposing the sample to certain outcomes. This is similar to purposive sampling where the “sample is gathered deliberately, with a purpose in mind” (Vogt, 2007, p. 81) increasing the likelihood of bias. Bradburn, Sudman, Blair, and Stocking (1978) noted that reliance on survey data (i.e., self-reported information) is fundamentally biased. However, the primary difference between purposive sampling and the sampling in the research study is the inclusion of a randomized sample effectively reducing bias (Vogt, 2007). Nevertheless, the limited population incorporated into this investigation ultimately affects the overall generalization or external validity of the findings. In the research study, however, proving validity depended mostly on “whether the instrument is actually



measuring what one intends it to measure” (Vogt, 2007, p. 120). As such, the primary validity question related to construct validity or more specifically, convergent validity.

Convergent validity refers to the “extent to which a test correlates with other tests of the same construct” (Meltzoff, 1998, p. 281). By comparing similar research studies that analyzed burnout and the areas of worklife factors, the results of this investigation demonstrated similar relationships and thus, positive convergent validity. Additional elements of consideration in this analysis related to weak construct operationalization (threat to construct validity) and faulty statistical analysis (Vogt, 2007). The potential relationships identified throughout the research study compared to other research studies of similar design may help minimize these limitations.

Correspondingly, mitigating the statistical analysis limitation relating to reliability involved performing the coefficient alpha test or Cronbach’s alpha. In this case, Cronbach’s alpha aided in accessing the reliability of both measurements to help demonstrate the “consistent accuracy of the measure[s]” (Meltzoff, 1998, p. 108). The calculated Cronbach’s alpha for the research study was .752, which indicates a relatively high internal consistency or reliable scale (Vogt, 2007). As a result, the reliability test helped ensure the consistency of the measurement instruments. However, the Cronbach’s alpha calculation largely depends on the sample in terms of investigating the appropriate population, sample selection, and the resulting trustworthiness of participant responses.

The purpose of the research study was to ascertain the potential relationships between the six areas of worklife as defined by the AWS and the three burnout factors of exhaustion, cynicism, and professional efficacy measured using the MBI–GS. The study did not focus on establishing causal relationships, but only examined the existence of

possible relationships. Furthermore, the research study did not explore other factors beyond the burnout experience and areas of worklife such as personality traits and stress in general. Burnout is a complex phenomenon (Maslach et al., 1996) and has been found to be affected by various factors including personality, outside environmental factors, and even emotional reaction (Lazarus & Folkman, 1984; McCarthy, Lambert, O'Donnell, & Melendres, 2009). Moreover, the potential effects by industry or company size were not investigated and only U.S. accounting professionals were explored, excluding the possibility of international samples. Perhaps extending the data collection and analysis to include these additional areas may have provided a more holistic investigation, expanding the focus and scope of the sample.

Alternatively, relying on a third-party vendor for sample selection may limit the results. The use of a third-party vendor to determine the target population and sampling frame, to disseminate the recruitment e-mails, to manage the online survey, and to initially handle participant responses facilitated a way to reduce bias. However, this lack of direct control may lead to a high level of risk involving survey administration and as a result, the final sample may not produce the desired outcomes and such reliance may call into question the reliability of data handling. The use of a self-reported online questionnaire with Likert scales may also limit the results. The findings of the research study are only accurate to the extent of participant truthfulness when completing the online survey, including the Hawthorne effect.

The Hawthorne effect occurs because of participant awareness of the goal of the research study. More specifically, research participants become aware of the purpose for the exploration and in turn, complete the surveys to generate the perceived desired results

(Gall, Gall, & Borg, 2007). Whether done consciously or unconsciously, the bottom line is research participants could fabricate the results by providing responses that are based on the goals of the research and not their own perceptions (Gall et al., 2007). This limitation is inherent in survey research and also the result of employing a third-party vendor for sample selection and data collection.

The final limitation centers on the use of one theory (i.e., COR theory) to help explain the findings. There are other resource theories that may have produced similar or even diverging results. These limitations may reduce the overall value and accuracy of the research, but they present opportunities for future research. As Brutus et al. (2013) stipulated, “While limitations raise awareness about shortcomings, directions for future research can point to possible solutions for these shortcomings” (p. 51).

### **Recommendations for Further Research**

The findings, conclusions, and limitations stemming from the research study pinpoint the need for additional exploration into the complex phenomenon of burnout among accounting professionals. For example, respondent data indicated a large number of accounting professionals were female. This particular aspect was an interesting and unexpected result, but it was not investigated further in the research study. Although studies have been performed to examine gender differences and burnout among accounting professionals (e.g., Guthrie & Jones, 2012), more investigation behind the higher level of female respondents as antecedents to burnout may have fostered additional explanation for the findings and perhaps the reason for the high levels of cynicism noted in the sample. Future research should also focus on performing a

qualitative and/or mixed methods study to advance the scope of the current research and provide more variety in the research design.

One of the inherent limitations of quantitative research is the lack of generalization due to the limited sample under investigation. The current investigation randomly sampled Audience members from the SurveyMonkey database and therefore, the results may not be generalizable to other accounting professionals who exist outside the database. In conjunction, the current research study explored the relationship between burnout and the work environment among accounting professionals with explicit criteria. Future research should expand on the scope of the sample to include accounting professionals beyond the United States. Additionally, replication studies are needed to facilitate comparison discourse surrounding the results. The findings did not agree with normative results. More specifically, exhaustion and cynicism did not exhibit a similar effect on burnout as in prior studies (Leiter & Maslach, 2011). As a result, future research should also incorporate a similar methodology to compare the results and help validate the results of the current study.

Another area of beneficial research surrounds the possibility of causality. The research study incorporated a quantitative, nonexperimental research design and not an experiment. Accordingly, the findings (especially the correlation results) do not infer causation. The research study did not emphasize causal relationships, but only the possibility of relationships between burnout and the areas of worklife. Future research on causality may bring forth some insightful findings. In addition, while the literature points to other antecedents of burnout (e.g., Reinardy, 2013; Ružić, 2013), the current investigation highlighted six specific areas of the work environment over other potential

factors such as personality traits, stress in general, other types emotional behavior, and demographic characteristics that may exert a positive or negative influence on burnout among accounting professionals. Furthermore, the investigation did not include any type of data comparison by industry or company size. In other words, participant demographics were largely ignored except to help gain an understanding of the context and makeup of the sample. Future studies might integrate demographic factors as additional independent variables to ascertain their specific influence on the burnout condition.

The burnout condition is a complex phenomenon and plurality of research into the burnout phenomenon incorporates the use of the MBI in some form either for human services, education, or other occupations. Conceivably, a future study might investigate burnout and the work environment among accounting professionals with another burnout instrument such as the Oldenburg Burnout Inventory (Demerouti, Bakker, Vardakou, & Kantas, 2003), the Burnout Measure (Malakh-Pines et al., 1981), or the Shirom–Melamed Burnout Measure (Hobfoll, 1989; Shirom, 2003). The use of various measures of burnout beyond the MBI might provide some additional insight into the study of accounting professionals and burnout.

In the literature, burnout is considered a chronic condition over time. With this in mind, due to the inconsistencies in the observed burnout levels, another avenue of future research might include a longitudinal research design with data collection occurring at two or more different times during the year (e.g., during tax or auditing season). Additionally, an interesting future research opportunity may include a study that focuses on the relationship between burnout and the work environment as action research not

only to create awareness, but also to develop policies and procedures to assist in mitigating the condition. As a result, more research is needed to investigate how companies intervene to lessen burnout and the effect of such interventions.

### **Conclusion**

The exploration into the burnout phenomenon and its predictors is considerable and has grown in importance since its inception by Freudenberger in 1974 (Coker & Omoluabi, 2009; Freudenberger & Richelson, 1980). As these explorations continue, the concept of burnout will become more robust and incorporate various theoretical frameworks to facilitate the understanding of the causes of the condition. In the case of the research study, the areas of worklife.

Leiter and Maslach (2004) described the areas of worklife variables as “organizational conditions” (p. 94) of the workplace that may have an effect on the burnout experience or engagement and may lead to undesirable business outcomes including reduced productivity, decreased effectiveness, lowered satisfaction, morale, and organizational commitment (Angerer, 2003). In the research study, the areas of worklife variables facilitated a way to better understand burnout among accounting professionals. Overall, the results of the current investigation verified that accounting professionals in the sample, at least to some degree, demonstrated an inconsistent burnout pattern by exhibiting low levels of exhaustion, high levels of professional efficacy, with high levels of cynicism. This suggests the presence of burnout among the sample of accounting professionals (Maslach & Leiter, 2008). From a statistical standpoint, however, the

findings were rather consistent with previous research (Leiter & Maslach, 2011) and only the observed levels of cynicism varied from normative results.

The findings further underlined the significance of the areas of worklife factors relationship with burnout. While the areas of worklife variables together helped explain the variance in burnout levels in regards to exhaustion and cynicism, the reward variable appeared more plausible as a potential enabler of the burnout condition (focusing on cynicism). Additionally, the cynicism–reward relationship exhibited the highest correlation among the areas of worklife variables. In other words, reward was marked by a greater correlation with cynicism than with any other burnout variable. The understanding of the cynicism–reward relationship represents an important consideration as business organizations and accounting professionals juggle with increased demands and with fewer resources to meet those demands.

Both public and private organizations, public accounting firms, and the accounting profession may be able to apply the results of this investigation to help improve employee productivity among accounting professionals through awareness of the reward–burnout trigger, and ultimately augment business outcomes, retention rates, and the bottom line. As Ozkan and Ozdevecioğlu (2013) stressed, “Burnout is one of the most important psychological illnesses of this century. From this point of view, precautions should be taken, both individually and organizationally, to decrease the stress level of accountants” (p. 2795). The research study served to analyze the relationship between burnout and the work environment to generate a more critical understanding of burnout among accounting professionals. The research study does not denote the end of

the discussion, but hopefully, a continued discourse on addressing burnout in the accounting profession.



## REFERENCES

- Acedo, F. J., Barroso, C., & Galan, J. L. (2006). The resource-based theory: Dissemination and main trends. *Strategic Management Journal*, 27, 621–636. doi: 10.1002/smj.532
- Alarcon, G. M., Edwards, J. M., & Menke, L. E. (2011). Student burnout and engagement: A test of the conservation of resources theory. *Journal of Psychology*, 145(3), 211–227. doi:10.1080/00223980.2011.555432
- Al-Imam, D. M., & Al-Sobayel, H. I. (2014). The prevalence and severity of burnout among physiotherapists in an Arabian setting and the influence of organizational factors: An observational study. *Journal of Physical Therapy Science*, 26(8), 1193–1198. doi:10.1589/jpts.26.1193
- Almer, E. D., & Kaplan, S. E. (2002). The effects of flexible work arrangements on stressors, burnout, and behavioral job outcomes in public accounting. *Behavioral Research in Accounting*, 14, 1–34. doi:10.2308/bria.2002.14.1.1
- Alvaro, C., Lyons, R. F., Warner, G., Hobfoll, S. E., Martens, P. J., Labonté, R., & Brown, E. R. (2010). Conservation of resources theory and research use in health systems. *Implementation Science*, 5(1), 1–20. doi:10.1186/1748-5908-5-79
- Angay, F., & Ersoy, A. (2010). Literature review of behavioral research in accounting between 1999–2008. *Journal of Yasar University*, 5(19), 3171–3198. Retrieved from <http://joy.yasar.edu.tr/?page=main>
- Angerer, J. M. (2003). Job burnout. *Journal of Employment Counseling*, 40(3), 98–107. doi:10.1002/j.2161-1920.2003.tb00860.x
- Arend, R. J., Patel, P. C., & Park, H. D. (2014). Explaining post-IPO venture performance through a knowledge-based view typology. *Strategic Management Journal*, 35, 376–397. doi:10.1002/smj.2095
- Argyris, C. (1952). *The impacts of budgets on people*. Ithaca, NY: Controllershship Foundation.

- Bailey, W. J., & Sawers, K. M. (2012). In GAAP we trust: Examining how trust influences nonprofessional investor decisions under rules-based and principles-based standards. *Behavioral Research in Accounting*, 24(1), 25–46. doi:10.2308/bria-50071
- Baker, B. O., Hardyk, C. D., & Petrinovich, L. F. (1966). Weak measurements vs. strong statistics: An empirical critique of S. S. Steven's proscriptions on statistics. *Education and Psychological Measurement*, 26(2), 291–309. doi:10.1177/001316446602600204
- Bakker, A. B., Albrecht, S., & Leiter, M. P. (2011). Work engagement: Further reflections on the state of play. *European Journal of Work and Organizational Psychology*, 20(1), 74–88. doi:10.1080/1359432X.2010.546711
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99(2), 274–284. doi:10.1037/0022-0663.99.2.274
- Balachandran, M. (1985). Behavioral accounting: An introduction. *Behavioral & Social Sciences Librarian*, 4(2–3), 21–27. doi:10-1300/J103V04no2\_03
- Barreto, I. (2010). Dynamic capabilities: A review of past research and an agenda for the future. *Journal of Management*, 36(1), 256–280. doi:10.1177/0149206309350776
- Bates, R. A. (2005). Multivariate research methods. In R. A. Swanson & E. F. Holton III (Eds.), *Research in organizations: Foundations and methods of inquiry* (pp. 115–141). San Francisco, CA: Berrett-Koehler.
- Beck, A. K., Fuller, R. M., Muriel, L., & Reid, C. D. (2013). Audit fees and investor perceptions of audit characteristics. *Behavioral Research in Accounting*, 25(2), 71–95. doi:10.2308/bria-50403
- Berenson, M. L., Levine, D. M., & Krehbiel, T. C. (2006). *Basic business statistics: Concepts and applications* (10th ed.). Chicago, IL: Prentice Hall.
- Berry, W. D. (1993). *Quantitative applications in the social sciences: Understanding regression assumptions*. Newbury Park, CA: Sage.
- Bianchi, R., Laurent, E., Brisson, R., & Schonfeld, I. S. (2015). Chronic occupational stress does not discriminate burnout from depression. *European Psychiatry*, 30(Suppl. 1), 28–31. doi:10.1016/S0924-9338(15)30278-9
- Birnberg, J. G., Frieze, I. H., & Shields, M. D. (1977). The role of attribution theory in control systems. *Accounting, Organizations and Society*, 2(3), 189–200. doi:10-1016/0361-3682(77)90011-3

- Bosco, F. A., Aguinis, H., Singh, K., Field, J. G., & Pierce, C. A. (2014). Correlational effect size benchmarks. *Journal of Applied Psychology, 100*(2), 431–449. doi:10.1037/a0038047
- Bradburn, N. M., Sudman, S., Blair, E., & Stocking, C. (1978). Question threat and response bias. *Public Opinion Quarterly, 42*(2), 221–234. doi: 10.1086/268444
- Bragg, S. M. (2010). *The ultimate accountants' reference including GAAP, IRS & SEC regulations, leases, and more* (3rd ed.). Hoboken, NJ: Wiley.
- Brandon, D. M., Long, J. H., Loraas, T. M., Mueller-Phillips, J., & Vansant, B. (2014). Online instrument delivery and participant recruitment services: Emerging opportunities for behavioral accounting research. *Behavioral Research in Accounting, 26*(1), 1–23. doi:10.2308/bria-50651
- Brown, P. R. (1981). A descriptive analysis of select input bases of the Financial Accounting Standards Board. *Journal of Accounting Research, 19*(1), 232–246. doi:10.2307/2490971
- Brutus, S., Aguinis, H., & Wassmer, U. (2013). Self-reported limitations and future directions in scholarly reports: Analysis and recommendations. *Journal of Management, 39*(1), 48–75. doi:10.1177/0149206312455245
- Bryman, A. (2006). Integrating quantitative and qualitative research: How is it done? *Qualitative Research, 6*(1), 97–113. doi:10.1177/1468794106058877
- Buchanan, E., Aycock, J., Dexter, S., Dittrich, D., & Hvizdak, E. (2011). Computer science security research and human subjects: Emerging considerations for research ethics boards. *Journal of Empirical Research on Human Research Ethics, 6*(2), 71–83. doi:10.1525/jer.2011.6.2.71
- Buchanan, E., & Hvizdak, E. (2009). Online survey tools: Ethical and methodological concerns of human research ethics committees. *Journal of Empirical Research on Human Research Ethics, 4*(2), 37–38. doi:10.1525/jer.2009.4.2.37
- Buchheit, S., Dalton, D. W., Harp, N., & Hollingsworth, C. W. (2014). *An analysis of accounting professionals' work-life balance in the post-Sarbanes-Oxley era*. Retrieved from [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2501805](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2501805)
- Bureau of Labor Statistics. (2014). *Occupational outlook handbook, 2014–15 edition, accountants and auditors*. Retrieved from <http://www.bls.gov/ooh/business-and-financial/accountants-and-auditors.htm>

- Burke, R. J. (1989). Toward a phase model of burnout: Some conceptual and methodological concerns. *Group Organization Management*, 14(1), 23–32. doi:10.1177/105960118901400104
- Campbell, N. S., Perry, S. J., Maertz, C. P., Jr., Allen, D. G., & Griffeth, R. W. (2013). All you need is . . . resources: The effects of justice and support on burnout and turnover. *Human Relations*, 66(6), 759–782. doi:10.1177/0018726712462614
- Carey, J. L. (1968). What is the professional practice of accounting? *Accounting Review*, 43(1), 1–9. Retrieved from <http://aaahq.org/>
- Cascio, W. F., & Aguinis, H. (2011). *Applied psychology in human resource management* (7th ed.). Upper Saddle River, NJ: Pearson.
- Castellano, J. F., & Roehm, H. A. (1977). Research in behavioral accounting courses: An approach. *Accounting Review*, 52(1), 211–215. Retrieved from <http://aaahq.org/>
- Cepin, G. (2011). Retaining top performers. *CPA Practice Management Forum*, 7(1), 5–7. Retrieved from <http://tax.cchgroup.com/default>
- Chappell, N. L., & Novak, M. (1992). The role of support in alleviating stress among nursing assistants. *The Gerontologist*, 32(3), 351–359. doi:10.1093/geront/32.3.351
- Childs, J. H., & Stoeber, J. (2012). Do you want me to be perfect? Two longitudinal studies on socially prescribed perfectionism, stress and burnout in the workplace. *Work & Stress*, 26(4), 347–364. doi:10.1080/02678373.2012.737547
- Chirkowska-Smolak, T., & Kleka, P. (2011). The Maslach Burnout Inventory–General Survey: Validation across occupational groups in Poland. *Polish Psychological Bulletin*, 42(2), 86–94. doi:10.2478/v10059-011-0014-x
- Chow, C. W. (1983). The effects of job standard tightness and compensation scheme on performance: An exploration of linkages. *Accounting Review*, 58(4), 667–685. Retrieved from <http://aaahq.org/>
- Churchill, N. C., & Cooper, W. W. (1965). A field study of internal auditing. *Accounting Review*, 40(4), 767–781. Retrieved from <http://aaahq.org/>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159. doi:10.1037/0033-2909.112.1.155

- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). New York, NY: Routledge.
- Coker, A. O., & Omoluabi, P. F. (2009). Validation of Maslach Burnout Inventory. *Ife Psychologia*, 17(1). doi:10.4314/ifep.v17i1.43750
- Conner, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *Journal of Management*, 17(1), 121–154. doi:10.1177/014920639101700109
- Cooper, C. L., Dewe, P. J., & O’Driscoll, M. P. (2001). *Organizational stress: A review and critique of theory, research, and applications*. Thousand Oaks, CA: Sage.
- Cooper, C. R., & Schindler, P. S. (2011). *Business research methods* (11th ed.). Boston, MA: McGraw-Hill.
- Cooper, D. J., & Morgan, W. (2013). Meeting the evolving corporate reporting needs of government and society: Arguments for a deliberative approach to accounting rule making. *Accounting and Business Research*, 43(4), 418–441. doi:10.1080/00014788.2013.794411
- Cordes, C. L., & Dougherty, T. W. (1993). A review and integration of research on job burnout. *Academy of Management Review*, 18(4), 621–656. doi:10.5465/AMR.1993.9402210153
- Couper, M. P., & Miller, P. V. (2008). Web survey methods. *Public Opinion Quarterly*, 72(5), 831–835. doi:10.1093/poq/nfn066
- Cox, T., Tisserand, M., & Taris, T. (2005). Editorial: The conceptualization and measurement of burnout: Questions and directions. *Work & Stress*, 19(3), 187–191. doi:10.1080/02678370500387109
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95, 834–848. doi:10.1037/a0019364
- Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Creswell, J., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.

- Daniels, K., Glover, J., Beesley, N., Wimalasiri, V., Cohen, L., Cheyne, A., & Hislop, D. (2013). Utilizing job resources: Qualitative evidence of the roles of job control and social support in problem solving. *Work & Stress, 27*(2), 200–221. doi:10.1080/02678373.2013.792471
- Davies, D., & Dodd, J. (2002). Qualitative research and the question of rigor. *Qualitative Health Research, 12*(2), 279–289. doi:10.1177/104973230201200211
- Day, A. L., Sibley, A., Scott, N., Tallon, J. M., & Ackroyd-Stolarz, S. (2009). Workplace risks and stressors as predictors of burnout: The moderating impact of job control and team efficacy. *Canadian Journal of Administrative Sciences, 26*(1), 7–22. doi:10.1002/cjas.91
- De Cuyper, N., Raeder, S., van der Heijden, B. M., & Wittekind, A. (2012). The association between workers' employability and burnout in a reorganization context: Longitudinal evidence building upon the conservation of resources theory. *Journal of Occupational Health Psychology, 17*(2), 162–174. doi:10.1037/a0027348
- De Silva, P., Hewage, C., & Fonseka, P. (2009). Burnout: An emerging occupational health problem. *Galle Medical Journal, 14*(1), 52–55. doi:10.4038/gmj.v14i1.1175
- Demerouti, E., & Bakker, A. B. (2011). The job demands–resources model: Challenges for future research. *Journal of Industrial Psychology, 37*(2), 1–9. doi:10.4102/sajip.v37i2.974
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2000). A model of burnout and life satisfaction amongst nurses. *Journal of Advanced Nursing, 32*(2), 454–464. doi:10.1046/j.1365-2648.2000.01496.x
- Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The convergent validity of two burnout instruments: A multitrait–multimethod analysis. *European Journal of Psychological Assessment, 19*, 12–23. doi:10.1027//1015–5759.19.1.12
- Densten, I. L. (2001). Re-thinking burnout. *Journal of Organizational Behavior, 22*, 833–847. doi:10.1002/job.115
- Dent, J. F. (1991). Accounting and organizational cultures: A field study of the emergence of a new organizational reality. *Accounting Organizations and Society, 16*(8), 705–732. doi:10.1016/0361-3682(91)90021-6
- Dirsmith, M. W., Covalski, M. A., & Samuel, S. (2015). On being professional in the 21st century: An empirically informed essay. *Auditing: A Journal of Practice & Theory, 34*(2), 167–200. doi:10.2308/ajpt-50698

- Drucker, P. F. (2004). What makes an effective executive? *Harvard Business Review*, 82(6), 58–63. Retrieved from <http://www.hbr.org>
- Duffy, M., & Chenail, R. J. (2009). Values in qualitative and quantitative research. *Counseling and Values*, 53(1), 22–38. doi:10.1002/j.2161-007X.2009.tb00111.x
- Eastman, W. (1996, May). *Avoiding faculty burnout through the wellness approach*. Paper presented at the annual conference of the Association of Canadian Community Colleges, Toronto, Ontario, Canada. Retrieved from ERIC database. (ED399987)
- Edelwich, J., & Brodsky, A. (1980). *Burn-out—Stages of disillusionment in the helping professions*. New York, NY: Human Sciences Press.
- Evans, J. R., & Mathur, A. (2005). The value of online surveys. *Internet Research*, 15(2), 195–219. doi:10.1108/10662240510590360
- Eyden, T. (2013, June 20). *Top priorities for CPA firms: Retaining and training staff*. Retrieved from <http://www.accountingweb.com/article/top-priorities-cpa-firms-retaining-and-training-staff/221969>
- Fengchun, T., Hess, T. J., Valacich, J. S., & Sweeney, J. T. (2014). The effects of visualization and interactivity on calibration in financial decision-making. *Behavioral Research in Accounting*, 26(1), 25–58. doi:10.2308/bria-50589
- Fernet, C., Gagné, M., & Austin, S. (2010). When does quality of relationships with coworkers predict burnout over time? The moderating role of work motivation. *Journal of Organizational Behavior*, 31(8), 1163–1180. doi:10.1002/job.673
- Fernet, C., Guay, F., & Senécal, C. (2004). Adjusting to job demands: The role of work self-determination and job control in predicting burnout. *Journal of Vocational Behavior*, 65(1), 39–56. doi:10.1016/S0001-8791(03)00098-8
- Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London, England: Sage.
- Figler, H. R. (1980). Managing stress: Caution: This article may be distressing for some readers. *Management Accounting*, 62(2), 22–28. Retrieved from [www.imanet.org](http://www.imanet.org)



- Fogarty, T. J., & Kalbers, L. P. (2006). Internal auditor burnout: An examination of behavioral consequences. In V. Arnold, B. D. Clinton, P. Lockett, R. Roberts, C. Wolfe, & S. Wright (Eds.), *Advances in accounting behavioral research* (Vol. 9, pp. 51–86). San Diego, CA: Elsevier. doi:10.1016/S1475-1488(06)09003-X
- Fogarty, T. J., Singh, J., Rhoads, G. K., & Moore, R. K. (2000). Antecedents and consequences of burnout in accounting: Beyond the role stress model. *Behavioral Research in Accounting*, 12, 31–67. Retrieved from <http://aaahq.org/abo/bria/briahome.htm>
- Francis, L. J., Hills, P. R., & Kaldor, P. (2009). The Oswald Clergy Burnout Scale: Reliability, factor structure and preliminary application among Australian clergy. *Pastoral Psychology*, 57(5–6), 243–252. doi:10.1007/s11089-008-0165-7
- Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues*, 30(1), 159–165. doi:10.1111/j.1540-4560.1974.tb00706.x
- Freudenberger, H. J., & Richelson, G. (1980). *Burn-out: The high cost of high achievement*. Garden City, NY: Anchor Press Doubleday.
- Frippiat, D., & Marquis, N. (2010). Web surveys in the social sciences: An overview. *Population*, 65(2), 285–311.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston, MA: Pearson.
- Garson, G. D. (2015). *Statnotes: Topics in multivariate analysis*. Retrieved from <http://faculty.chass.ncsu.edu/garson/PA765/statnote.htm>
- Gascón, S., Leiter, M. P., Stright, N., Santed, M. A., Montero-Marín, J., Andrés, E., . . . García-Campayo, J. (2013). A factor confirmation and convergent validity of the “Areas of Worklife Scale” (AWS) to Spanish translation. *Health and Quality of Life Outcomes*, 11(1), 63. doi:10.1186/1477-7525-11-63
- Gayle, J. (2013). *A quantitative study of the relationship between emotional intelligence and virtue ethics in accounting professionals* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3609163)
- Gomes, A. R., Faria, S., & Goncalves, A. M. (2013). Cognitive appraisal as a mediator in the relationship between stress and burnout. *Work & Stress*, 27(4), 351–367. doi:10.1080/02678373.2013.840341



- Gorgievski, M. J., & Hobfoll, S. E. (2008). Work can burn us out or fire us up: Conservation of resources in burnout and engagement. In J. R. B. Halbesleben (Ed.), *Handbook of stress and burnout in health care* (pp. 7–22). Hauppauge, NY: Nova.
- Gregory, S. T., & Menser, T. (2015). Burnout among primary care physicians: A test of the Areas of Worklife model. *Journal of Healthcare Management, 60*(2), 133–148. Retrieved from <http://www.ache.org/PUBS/jhmsub.cfm>
- Gupta, S., Paterson, M. L., Lysaght, R. M., & von Zweck, C. M. (2012). Experiences of burnout and coping strategies utilized by occupational therapists. *Canadian Journal of Occupational Therapy, 79*(2), 86–95. doi:10.2182/cjot.2012.79.2.4
- Guthrie, C. P., & Jones, A., III. (2012). Job burnout in public accounting: Understanding gender differences. *Journal of Managerial Issues, 24*(4), 390–411. Retrieved from <http://www.pittstate.edu/econ/jmi.html>
- Hakanen, J. J., Bakker, A. B., & Demerouti, E. (2005). How dentists cope with their job demands and stay engaged: The moderating role of job resources. *European Journal of Oral Sciences, 113*(6), 479–487. doi:10.1111/j.1600-0722.2005.00250.x
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The job demands–resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress, 22*(3), 224–241. doi:10.1080/02678370802379432
- Halbesleben, J. R. B., & Bowler, W. M. (2007). Emotional exhaustion and job performance: The mediating role of motivation. *Journal of Applied Psychology, 92*(1), 93–106. doi:10.1037/0021-9010.92.1.93
- Halbesleben, J. R. B., Neveu, J.-P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the “COR”: Understanding the role of the resources in conservation of resources theory. *Journal of Management, 40*(5), 1334–1364. doi:10.1177/0149206314527130
- Harrison, S. (2013). *Exploring burnout and turnover intentions of frontline grocery employees in western New York* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3578577)
- Harrison, W. T., Jr., Horngren, C. T., & Thomas, C. W. (2015). *Financial accounting* (5th ed.). Upper Saddle River, NJ: Pearson.

- Heaney, C. A., Price, R. H., & Rafferty, J. (1995). Increasing coping resources at work: A field experiment to increase social support, improve work team functioning, and enhance employee mental health. *Journal of Organizational Behavior*, 16(4), 335–352. doi:10.1002/job.4030160405
- Heiman, G. W. (2014). *Basic statistics for the behavioral sciences* (7th ed.). Belmont, CA: Wadsworth, Cengage.
- Henley, K. (2009, September 23). *The difference between stress and burnout*. Retrieved from [http://www.huffingtonpost.com/kari-henley/the-difference-between-st\\_b\\_265011.html](http://www.huffingtonpost.com/kari-henley/the-difference-between-st_b_265011.html)
- Herda, D. N. (2012). Auditors' relationship with their accounting firm and its effect on burnout, turnover intention, and post-employment citizenship. *Current Issues in Auditing*, 6(2), 13–17. doi:10.2308/ciia-50277
- Herda, D. N., & Lavelle, J. J. (2012). The auditor–audit firm relationship and its effect on burnout and turnover intention. *Accounting Horizons*, 26(4), 707–723. doi:10.2308/acch-50181
- Hewson, C., Vogel, C., & Laurent, D. (2015). *Internet research methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524. doi:10.1037/0003-066X.44.3.513
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology*, 50(3), 337–421. doi:10.1111/1464-0597.00062
- Hobfoll, S. E., & Freedy, J. (1993). Conservation of resources: A general stress theory applied to burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 115–133). Philadelphia, PA: Taylor & Francis.
- Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84(3), 632–643. doi:10.1037/0022-3514.84.3.632
- Hobfoll, S. E., & Lilly, R. S. (1993). Resource conservation as a strategy for community psychology. *Journal of Community Psychology*, 21(2), 128–148. doi:10.1002/1520-6629(199304)21:2<128::aid-jcop2290210206>3.0.co;2-5

- Hobfoll, S. E., & Shirom, A. (2001). Conservation of resources theory: Applications to stress and management in the workplace. In R. T. Golembiewski (Ed.), *Handbook of organizational behavior* (2nd ed., pp. 57–80). New York, NY: Dekker.
- Hofstede, T. R., & Kinard, J. C. (1970). A strategy for behavioral accounting research. *Accounting Review*, 45(1), 38–54. Retrieved from <http://aaahq.org/>
- Hollett-Haudeberet, S., Mulki, J. P., & Fournier, C. (2011). Neglected burnout dimensions: Effect of depersonalization and personal nonaccomplishment on organizational commitment of salespeople. *Journal of Personal Selling & Sales Management*, 31(4), 411–428. doi:10.2753/PSS0885-3134310404
- Holton, E. F., III, & Burnett, M. F. (2005). The basics of quantitative research. In R. A. Swanson & E. F. Holton III (Eds.), *Research in organizations: Foundations and methods of inquiry* (pp. 29–44). San Francisco, CA: Berrett-Koehler.
- Horner, J., & Minifie, F. D. (2011). Research ethics II: Mentoring, collaboration, peer review, and data management and ownership. *Journal of Speech, Language & Hearing Research*, 54(1), S330–S345. doi:10.1044/1092-4388(2010/09-0264)
- International Federation of Accountants. (2005). *The roles and domain of the professional accountant in business*. Retrieved from <https://www.ifac.org/publications-resources/roles-and-domain-professional-accountant-business>
- Isabella, L. A. (1990). Evolving interpretations as a change unfolds: How managers construe key organizational events. *Academy of Management Journal*, 33(1), 7–41. doi:10.2307/256350
- Jones, A., III, Guthrie, C. P., & Iyer, V. M. (2012). Role stress and job outcomes in public accounting: Have the gender experiences converged? In D. B. Schmitt (Ed.), *Advances in accounting behavioral research* (Vol. 15, pp. 53–84). Bingley, England: Emerald Group. doi:10.1108/S1475-1488(2012)0000015007
- Jones, A., III, Norman, C. S., & Wier, B. (2010). Healthy lifestyle as a coping mechanism for role stress in public accounting. *Behavioral Research in Accounting*, 22(1), 21–41. doi:10.2308/bria.2010.22.1.21
- Jones, G., & Abraham, A. (2007, February). *Education implications of the changing role of accountants: Perceptions of practitioners, academics and students*. Proceedings of the Faculty of Commerce: The Quantitative Analysis of Teaching and Learning in Business, Economics and Commerce, Melbourne, Australia.
- Jones, W. P., & Kottler, J. A. (2006). *Understanding research: Becoming a competent and critical consumer*. Upper Saddle River, NJ: Pearson Prentice Hall.

- Kalbers, L. P., & Fogarty, T. J. (2005). Antecedents to internal auditor burnout. *Journal of Managerial Issues*, 17(1), 101–118. Retrieved from <http://www.pittstate.edu/econ/jmi.html>
- Kalimo, R., Pahkin, K., Mutanen, P., & Toppinen-Tanner, S. (2003). Staying well or burning out at work: Work characteristics and personal resources as long-term predictors. *Work & Stress*, 17(2), 109–122. doi:10.1080/0267837031000149919
- Keith, T. Z. (2015). *Multiple regression and beyond: An introduction to multiple regression and structural equation modeling* (2nd ed.). New York, NY: Routledge.
- Kelly, M., McGowen, J., & Williams, C. (2014). *BUSN 6*. Mason, OH: South-Western, Cengage.
- Kennedy, L. (2013). *A study to gain insights into the factors that influence newly qualified accountants in Ireland to stay or leave their organization in order to improve retention strategies in accounting firms* (Doctoral dissertation). Retrieved from <http://trap.ncirl.ie/875/1/lindakennedy.pdf>
- Krische, S. D., Sanders, P. R., & Smith, S. D. (2014). Management credibility and investment risk: An experimental investigation of lease accounting alternatives. *Behavioral Research in Accounting*, 26(1), 109–130. doi:10.2308/bria-50633
- Kruis, A., & Widener, S. K. (2014). Managerial influence in performance measurement system design: A recipe for failure? *Behavioral Research in Accounting*, 26(2), 1–34. doi:10.2308/bria-50755
- Kusel, J., & Deyoub, N. (1983). Internal auditor burnout. *Internal Auditor*, 40(5), 22–25. Retrieved from <https://iaonline.theiia.org/>
- Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing* (2nd ed.). Thousand Oaks, CA: Sage.
- Labovitz, S. (1967). Some observations on measurement and statistics. *Social Forces*, 46(2), 151–160. doi:10.2307/2574595
- Lackritz, J. R. (2004). Exploring burnout among university faculty: Incidence, performance, and demographic issues. *Teaching and Teacher Education*, 20(7), 713–729. doi:10.1016/j.tate.2004.07.002
- Laerd Statistics. (2013). *Multiple regression in SPSS statistics*. Retrieved from <https://statistics.laerd.com/premium/mr/multiple-regression-in-spss.php>

- Law, D. W., Sweeney, J. T., & Summers, S. L. (2008). An examination of the influence of contextual and individual variables on public accountants' exhaustion. In V. Arnold, B. D. Clinton, A. Lillis, R. Roberts, C. Wolfe, & S. Wright (Eds.), *Advances in accounting behavioral research* (pp. 129–153). Bingley, England: Emerald Group. doi:10.1016/S1475-1488(08)11006-7
- Lawson, L. (2011). *Burnout and worklife perceptions of special educators teaching in a private school* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3479232)
- Lawson, R. (2009). Moving ahead the evolving role of the finance & accounting function in China. *Strategic Finance*, 90(9), 27–33. Retrieved from <http://www.imanet.org/>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81(2), 123–133. doi:10.1037/0021-9010.81.2.123
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research: Planning and design* (8th ed.). Upper Saddle River, NJ: Prentice Hall.
- Leiter, M. P., & Durop, J. (1996). Work, home, and in-between: A longitudinal study of spillover. *Journal of Applied Behavioral Science*, 32(1), 29–47. doi:10.1177/0021886396321002
- Leiter, M. P., & Maslach, C. (2000). *Areas of Worklife Survey*. Menlo Park, CA: Mind Garden.
- Leiter, M. P., & Maslach, C. (2004). Areas of worklife: A structured approach to organizational predictors of job burnout. In P. L. Perrewé & D. C. Ganster (Eds.), *Emotional and physiological processes and positive intervention strategies* (Research in occupational stress and well-being; Vol. 3, pp. 91–134). Bingley, England: Emerald Group. doi:10.1016/S1479-3555(03)03003-8
- Leiter, M. P., & Maslach, C. (2011). *Areas of Worklife Survey manual* (5th ed.). Menlo Park, CA: Mind Garden.
- Lewin, J. E., & Sager, J. K. (2007). A process model of burnout among salespeople: Some new thoughts. *Journal of Business Research*, 60(12), 1216–1224. doi:10.1016/j.jbusres.2007.04.009
- Libby, R. (1979). The impact of uncertainty reporting on the loan decision. *Journal of Accounting Research*, 17(Suppl.), 35–57. doi:10.2307/2490608

- Lindblom, K. M., Linton, S. J., Fedeli, C., & Bryngelsson, I.-L. (2006). Burnout in the working population: Relations to psychosocial work factors. *International Journal of Behavioral Medicine*, 13(1), 51–59. doi:10.1207/s15327558ijbm1301\_7
- López, D. M., & Peters, G. F. (2012). The effect of workload compression on audit quality. *Auditing: A Journal of Practice & Theory*, 31(4), 139–165. doi:10.2308/aipt-10305
- Lord, A. T. (1989). The development of behavioral thought in accounting, 1952–1981. *Behavioral Research in Accounting*, 1, 124–149. Retrieved from <http://aaahq.org/abo/bria/briahome.htm>
- Madsen, D. (2004). Stability coefficient. In M. S. Lewis-Beck, A. Bryman, & T. F. Liao (Eds.), *Encyclopedia of social science research methods* (pp. 1063–1065). Thousand Oaks, CA: Sage. doi:10.4135/9781412950589.n953
- Mäkikangas, A., Hättinen, M., Kinnunen, U., & Pekkonen, M. (2011). Longitudinal factorial invariance of the Maslach Burnout Inventory–General Survey among employees with job-related psychological health problems. *Stress & Health*, 27(4), 347–352. doi:10.1002/smi.1381
- Malakh-Pines, A., Aronson, E., & Kafry, D. (1981). *Burnout: From tedium to personal growth*. New York, NY: Free Press.
- Marill, K. A. (2004). Advanced statistics: Linear regression, part II: Multiple linear regression. *Academic Emergency Medicine*, 11(1), 94–102. doi:10.1197/j.aem.2003.09.006
- Marshall, C., & Rossman, G. B. (2011). *Designing qualitative research*. Thousand Oaks, CA: Sage.
- Maslach, C. (1976). Burned-out. *Human Behavior*, 5(9), 16–22. Retrieved from <http://www.researchgate.net/publication/263847499>
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2(2), 99–113. doi:10.1002/job.4030020205
- Maslach, C., & Leiter, M. P. (1997). *The truth about burnout*. San Francisco, CA: Jossey-Bass.
- Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology*, 93(3), 498–512. doi:10.1037/0021-9010.93.3.498



- Maslach, C., Leiter, M. P., & Jackson, S. E. (1996). *Maslach Burnout Inventory manual* (3rd ed.). Menlo Park, CA: Mind Garden.
- Maslach, C., Leiter, M. P., & Jackson, S. E. (2012). Making a significant difference with burnout interventions: Researcher and practitioner collaboration. *Journal of Organizational Behavior, 33*(2), 296–300. doi:10.1002/job.784
- Maslach, D., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52*(1), 397–422. doi:10.1146/annurev.psych.52.1.397
- Maslanka, H. (1996). Burnout, social support and AIDS volunteers. *AIDS Care, 8*(2), 195–206. doi:10.1080/09540129650125876
- Maudgalya, T., Wallace, S., Daraiseh, N., & Salem, S. (2006). Workplace stress factors and “burnout” among information technology professionals: A systematic review. *Theoretical Issues in Ergonomics Science, 7*(3), 285–297. doi:10.1080/14639220500090638
- McCarthy, C. J., Lambert, R. G., O’Donnell, M., & Melendres, F. T. (2009). The relation of elementary teachers’ experience, stress, and coping resources to burnout symptoms. *Elementary School Journal, 109*(3), 282–300. doi:10.1086/592308
- Meltzoff, J. (1998). *Critical thinking about research: Psychology and related fields*. Washington, DC: American Psychological Association.
- Mertler, C. A., & Vannatta, R. A. (2004). *Advanced and multivariate statistical methods: Practical application and interpretation* (3rd ed.). Glendale, CA: Pyrczak.
- Meyer, M., & Rigsby, J. T. (2001). A descriptive analysis of the content and contributors of behavioral research in accounting 1989–1998. *Behavioral Research in Accounting, 13*(1), 211–215. doi:10.2308/bria.2001.13.1.253
- Miller, L. B. (2014). *Tech-assisted intercepts help pave the road between traditional and emergent*. Retrieved from <http://www.quirks.com/articles/2014/20140225-3.aspx>
- Nash, K. (2013). *The growth of the burnout syndrome*. Retrieved from <http://www.charteredaccountants.com.au/News-Media/Charter/Charter-articles/Business-management/2013-06-The-growth-of-Burnout-Syndrome>
- Nickerson, J. A., & Zenger, T. R. (2004). A knowledge-based theory of the firm—The problem-solving perspective. *Organization Science, 15*(6), 617–632. doi:10.1287/orsc.1040.0093

- Niebusch, R. C. (2012). *Conservation of resources, burnout, and other selected behavioral variables among law enforcement officers* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3518446)
- Nolan, S. A., & Heinzen, T. E. (2014). *Statistics for the behavioral sciences* (3rd ed.). New York, NY: Worth.
- Osborne, J. W., & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research, & Evaluation*, 8(2). Retrieved from <http://pareonline.net/getvn.asp?v=8&n=2>
- Ozkan, A., & Ozdevecioğlu, M. (2013). The effects of occupational stress on burnout and life satisfaction: A study in accountants. *Quality & Quantity: International Journal of Methodology*, 47(5), 2785–2798. doi:10.1007/s11135-012-9688-1
- Pany, K., & Reckers, P. M. (1980). The effect of gifts, discounts, and client size on perceived auditor independence. *Accounting Review*, 55(1), 50–61. Retrieved from <http://aaahq.org/>
- Park, H. I., Jacob, A. C., Wagner, S. H., & Baiden, M. (2014). Job control and burnout: A meta-analytic test of the conservation of resources model. *Applied Psychology: An International Review*, 63(4), 607–642. doi:10.1111/apps.12008
- Pasewark, W. R., & Viator, R. E. (2006). Sources of work–family conflict in the accounting profession. *Behavioral Research in Accounting*, 18(1), 147–165. doi:10.2308/bria.2006.18.1.147
- Passer, M. W. (2014). *Research methods: Concepts and connections*. New York, NY: Worth.
- The Pathways Commission. (2012, July). *The Pathways Commission: Charting a national strategy for the next generation of accountants*. Retrieved from [http://commons.aaahq.org/files/0b14318188/Pathways\\_Commission\\_Final\\_Report\\_Complete.pdf](http://commons.aaahq.org/files/0b14318188/Pathways_Commission_Final_Report_Complete.pdf)
- Peytcheva, M., Wright, A. M., & Majoor, B. (2014). The impact of principles-based versus rules-based accounting standards on auditors' motivations and evidence demands. *Behavioral Research in Accounting*, 26(2), 51–72. doi:10.2308/bria-50707
- Phillips, D. C. (1987). Validity in qualitative research. *Education and Urban Society*, 20(1), 9–24. doi:10.1177/0013124587020001003



- Phronebarger, A. L. (2014). *Predictors of burnout in community college faculty: A regression analysis* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3609069)
- Pines, A. M., & Keinan, G. (2005). Stress and burnout: The significant difference. *Personality and Individual Differences, 39*, 625–635. doi:10.1016/j.paid.2005.02.009
- Plana, A. B., Fabregat, A. A., & Gassió, J. B. (2003). Burnout syndrome and coping strategies: A structural relations model. *Psychology in Spain, 7*(1), 46–55. Retrieved from <http://www.psychologyinspain.com/>
- Plonsky, L., & Gass, S. (2011). Quantitative research methods, study quality, and outcomes: The case of interaction research. *Language Learnings: A Journal of Research in Language Studies, 61*(2), 325–366. doi:10.1111/j.1467-9922-2011.00640.x
- Poole, M. A., & O'Farrell, P. N. (1970). The assumptions of the linear regression model. *Transactions of the Institute of British Geographers, 52*, 145–158. doi:10.2307/621706
- Prajapati, B., Dunne, M., & Armstrong, R. (2010). Sample size estimation and statistical power analyses. *Optometry Today, 16*(7). Retrieved from <https://www.aop.org.uk/ot>
- Rasmussen, K. B. (2008). General approaches to data quality and Internet-generated data. In N. Fielding, R. M. Lee, & G. Blank (Eds.), *The Sage handbook of online research methods* (pp. 79–96). Thousand Oaks, CA: Sage.
- Reinardy, S. (2013). Depleted resources causing burnout for layoff survivors. *Newspaper Research Journal, 34*(3), 6–21. Retrieved from <http://www.newspaperresearchjournal.org/>
- Robson, C., & McCartan, K. (2015). *Real world research* (4th ed.). West Sussex, England: Wiley.
- Rod, M., & Ashill, N. J. (2009). Symptoms of burnout and service recovery performance: The influence of job resourcefulness. *Managing Service Quality: An International Journal, 19*(1), 60–84. doi:10.1108/09604520910926818
- Rose, R. G. (1986). Burnout. *Journal of Accountancy, 162*(5), 168–174. Retrieved from <http://www.aicpa.org/Pages/default.aspx>
- Rumsey, D. R. (2009). *Statistics II for dummies*. Hoboken, NJ: Wiley.

- Rupert, P. A., Miller, A. O., & Dorociak, K. E. (2015). Preventing burnout: What does the research tell us? *Professional Psychology: Research and Practice*, 46(3), 168–174. doi:10.1037/a0039297
- Rutherford, B. N., Hamwi, G. A., Friend, S. B., & Hartmann, N. N. (2011). Measuring salesperson burnout: A reduced Maslach Burnout Inventory for sales researchers. *Journal of Personal Selling & Sales Management*, 31(4), 429–440. doi:10.2753/PSS0885-3134310405
- Ružić, E. (2013). An investigation on the phenomenon of job burnout in the sales profession. *Ekonomika Misao i Praksa*, 22(1), 79–96. Retrieved from [http://hrcak.srce.hr/index.php?show=clanak&id\\_clanak\\_jezik=153651](http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=153651)
- Sarantakos, S. (2005). *Social research* (3rd ed.). New York, NY: Palgrave Macmillan.
- Sarros, J. C., & Densten, I. L. (1989). Undergraduate student stress and coping strategies. *Higher Education Research and Development*, 8(1), 47–57. doi:10.1080/0729436890080105
- Schaufeli, W. B., Bakker, A. B., van der Heijden, F. M. M. A., & Prins, J. T. (2009). Workaholism among medical residents: It is the combination of working excessively and compulsively that counts. *International Journal of Stress Management*, 16(4), 249–272. doi:10.1037/a0017537
- Schaufeli, W. B., & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis*. London, England: Taylor & Francis.
- Schaufeli, W. B., Leiter, M. P., & Kalimo, R. (1995, September). The General Burnout Questionnaire: A self-report questionnaire to assess burnout at the workplace. In M. P. Leiter (Chair), *Extending the burnout construct: Reflecting changing career paths*. Symposium conducted at the meeting of the American Psychological Association/National Institute of Occupational Safety and Health Conference, Work, Stress, and Health '95: Creating a Healthier Workplace, Washington, DC.
- Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). Maslach Burnout Inventory–General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *The Maslach Burnout Inventory* (3rd ed., pp. 19–26). Menlo Park, CA: Mind Garden.
- Schaufeli, W. B., Salanova, M., Gonzales-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92. <http://dx.doi.org/10.1023/A:1015630930326>

- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the job demands–resources model: Implications for improving work and health. In G. F. Bauer & O. Hämmig (Eds.), *Bridging occupational, organizational and public health: A transdisciplinary approach* (pp. 43–68). New York, NY: Springer. doi:10.1007/978-94-007-5640-3
- Schneider, G. P., Dai, J., Janvrin, D. J., Ajayi, K., & Raschke, R. L. (2015). Infer, predict, and assure: Accounting opportunities in data analytics. *Accounting Horizons*, 29(3), 719–742. doi:10.2308/acch-51140
- Shepherd, C. D., Tashchian, A., & Ridnour, R. E. (2011). An investigation of the job burnout syndrome in personal selling. *Journal of Personal Selling & Sales Management*, 31(4), 397–409. doi:10.2753/PSS0885-3134310403
- Shields, M. D. (1980). Some effects on information load on search patterns used to analyze performance reports. *Accounting, Organizations and Society*, 5(4), 429–442. doi:10.1016/0361-3682(80)90041-0
- Shirom, A. (2003). Job-related burnout: A review. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 245–264). Washington, DC: American Psychological Association. doi:10.1037/10474-012
- Shirom, A., Nirel, N., & Vinokur, A. D. (2010). Work hours and caseload as predictors of physician burnout: The mediating effects by perceived workload and by autonomy. *Applied Psychology: An International Review*, 59(4), 539–565. doi:10.1111/j.1464-0597.2009.00411.x
- Siegel, G., Sorensen, J. E., Klammer, T., & Richtermeyer, S. B. (2010). The ongoing preparation gap in management accounting education: A guide for change. *Management Accounting Quarterly*, 11(4), 29–39. Retrieved from [http://www.imanet.org/publications\\_maq.asp](http://www.imanet.org/publications_maq.asp)
- Solomon, I., & Trotman, K. T. (2003). Experimental judgment and decision research in auditing: The first 25 years of AOS. *Accounting, Organizations and Society*, 28(4), p. 395–412. doi:10.1016/S0361-3682(02)00023-5
- Stephenson, T. D. (2012). *A quantitative study examining teacher stress, burnout, and self-efficacy* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3533762)
- Stovall, D. C., & Stovall, P. S. (2009). Professional accountants: Void of “soft skills”? *Business Review*, 14(1), 99–104. Retrieved from <http://www.jaabc.com/brc.html>

- Sullivan, G. M., & Artino, A. R., Jr. (2013). Analyzing and interpreting data from Likert-type scales. *Journal of Graduate Medical Education*, 5(4), 541–542. doi:10.4300/JGME-5-4-18
- SurveyMonkey. (2015). *Millions are ready to share their opinions*. Retrieved from <https://www.surveymonkey.com/mp/audience/our-survey-respondents/>
- Sweeney, J. T., & Summers, S. L. (2002). The effect of the busy season workload on public accountants' job burnout. *Behavioral Research in Accounting*, 14(1), 223–245. doi:10.2308/bria.2002.14.1.223
- Taris, T. W. (2006). Is there a relationship between burnout and objective performance? A critical review of 16 studies. *Work & Stress*, 20(4), 316–334. doi:10.1080/02678370601065893
- Taris, T. W., Schreurs, P. G., & Schaufeli, W. B. (1999). Construct validity of the Maslach Burnout Inventory–General Survey: A two-sample examination of its factor structure and correlates. *Work & Stress*, 13(3), 223–237. doi:10.1080/026783799296039
- Teece, D. J. (2009). *Dynamic capabilities and strategic management*. New York, NY: Oxford University Press.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. doi:10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z
- Thoresen, C. J., Kaplan, S. A., Barsky, A. P., Warren, C. R., & de Chermont, K. (2003). The affective underpinnings of job perceptions and attitudes: A meta-analytic review and integration. *Psychological Bulletin*, 129(6), 914–945. doi:10.1037/0033-2909.129.6.914
- Toppinen-Tanner, S., Kalimo, R., & Mutanen, P. (2002). The process of burnout in white-collar and blue-collar jobs: Eight-year prospective study of exhaustion. *Journal of Organizational Behavior*, 23(5), 555–570. doi:10.1002/job.155
- Trochim, W. M. K. (2006). *Introduction to design*. Retrieved from <http://www.socialresearchmethods.net/kb/desintro.php>
- Tugend, A. (2013, November 29). Dealing with burnout, which doesn't always stem from overwork. *New York Times*. Retrieved from [http://www.nytimes.com/2013/11/30/your-money/a-solution-to-burnout-that-doesnt-mean-less-work.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2013/11/30/your-money/a-solution-to-burnout-that-doesnt-mean-less-work.html?pagewanted=all&_r=0)

- Utami, I., & Supriyadi. (2013). Flexible working arrangement and stress management training in mitigating auditor's burnout: An experimental study. *Accounting & Taxation*, 5(1), 97–113. Retrieved from <http://www.theibfr.com/ARCHIVE/AT-V5N1-2013.pdf>
- Vehovar, V., & Manfreda, K. (2008). Overview: Online surveys. In N. Fielding, R. M. Lee, & G. Blank (Eds.), *The Sage handbook of online research methods* (pp. 177–194). Thousand Oaks, CA: Sage.
- Vittoria, E. M. (2011). *The relationship between burnout and the work environment for paraprofessionals* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3501782)
- Vogt, W. P. (2007). *Quantitative research methods for professionals* (Custom ed.). Boston, MA: Allyn & Bacon.
- Walker, W. (2007). Ethical considerations in phenomenological research. *Nurse Researcher*, 14(3), 36–45. doi:10.7748/nr2007.04.14.3.36.c6031
- Weick, K. E. (1983). Stress in accounting systems. *Accounting Review*, 58(2), 350–369. Retrieved from <http://aaahq.org/>
- Wester, K. L. (2011). Publishing ethical research: A step-by-step overview. *Journal of Counseling & Development*, 89(3), 301–307. doi:10.1002/j.1556-6678.2011.tb00093.x
- Westman, M., Hobfoll, S. E., Chen, S., Davidson, O. B., & Laski, S. (2005). Organizational stress through the lens of conservation of resources (COR) theory. In P. L. Perrewé & D. C. Ganster (Eds.), *Exploring interpersonal dynamics* (Research in occupational stress and well-being; Vol. 4, pp. 167–220). Bingley, England: Emerald Group. doi:10.1016/S1479-3555(04)04005-3
- Worley, J. A., Vassar, M., Wheeler, D. L., & Barnes, L. L. B. (2008). Factor structure of scores from the Maslach Burnout Inventory: A review and meta-analysis of 45 exploratory and confirmatory factor-analytic studies. *Educational and Psychological Measurement*, 68(5), 797–823. doi:10.1177/0013164408315268
- Wright, A. M., & Wright, S. (2014). Modification of the audit report: Mitigating investor attribution by disclosing the auditor's judgment process. *Behavioral Research in Accounting*, 26(2), 35–50. doi:10.2308/bria-50662
- Yee, H. (2001, August). *The concept of profession: A historical perspective based on the accounting in China*. Proceedings of AHIC '01: The Second Accounting History International Conference, Osaka, Japan.

Zalaquett, C. P., & Wood, R. J. (1997). *Evaluating stress: A book of resources*. Retrieved from <http://www.rci.rutgers.edu/~sjacksox/PDF/EvaluatingStress.pdf>

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business research methods* (8th ed.). Mason, OH: South-Western Cengage.