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Validation of the Transformative Work in Society Index: Christianity, Work, and Economics Integration

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Validation of the Transformative Work in Society Index:

Christianity, Work, and Economics Integration

John R. Terrill

A dissertation submitted in partial fulfillment

of the requirements for the degree of

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in

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Abstract

In recent years, concern for faith-work integration has evolved from a special interest to a sustained movement within workplace and ecclesiastical communities. This study's purpose is to validate the Transformative Work in Society Index (TWSI) exploring Christian faith, work, and economics integration within the larger nomological net of workplace spirituality, organizational outcomes, and faith maturity measures. The TWSI incorporates the full affective, behavioral, and cognitive dimensions of what it means to be agentic human beings at work. A total of 405 participants who self-identified as Christians took part in this study (40.2% female; mean age = 46 years; mean as active Christian = 32 years).

Results indicated that the 51-item TWSI is best characterized as a reflective four-factor model, which demonstrated a moderately good fit to the data: (χ^2 [1212; $N = 405$] = 2881.551, $p < .001$; CFI = .817; RMSEA = .058). Correlations between the more externally-oriented TWSI facets and the Faith at Work Scale (FWS) were more modest than the correlation between the TWSI Core (personal) dimension and the FWS, demonstrating that the TWSI taps broader themes than are often captured by existing faith-work measures.

The TWSI facets significantly predicted Ethical Behavior, accounting for an additional 6.6% in overall variance. The TWSI also predicted Ethical Behavior and Faith Maturity above and beyond the FWS, further demonstrating its unique construct characteristics. Moreover, the TWSI Core (personal) dimension predicted contextual performance, accounting for an additional 9.8% in overall variance; the TWSI Behavioral

sub-facet was predictive of both task and contextual performance, accounting for an additional 3.8% and 14% in overall variance, respectively. Lastly, the TWSI Core (personal) facet was predictive of intentions to leave a job, as were two of the externally-oriented TWSI factors, accounting for an additional 13.7% and 6.6% in overall variance, respectively. However, contrary to expectations, organization/person values alignment did not moderate the TWSI and turnover intentions relationship.

Future research might further probe the TWSI's multidimensionality, the unique expressions of integration across Christian traditions, other factors that might moderate and/or predict the faith-work and personal/organizational outcomes relationships, as well as effective pedagogical approaches for faith-work integration.

Keywords: faith and work integration, Christianity, economics, business, ethics, task and contextual performance, turnover intentions, faith maturity.

CHAPTER I

Introduction and Literature Review

A convergence of business, economic, religious, geo-political, and ethical considerations has led to heightened awareness of the connection between work and religious commitment (Miller, 2007; Russell, 2007; Van Duzer, Franz, Karns, Wong, & Daniels, 2007). Many researchers point to Max Weber (1864-1920), German sociologist, philosopher, and political economist, as one of the seminal thinkers exploring links between religion and economic behavior. In his work in the early 1900s, Weber (1904-05/1958) made associations between Protestant theology—particularly Calvinism and Puritanism—and economic industriousness, entrepreneurship, and capitalistic innovation throughout North America. Weber believed enterprise blossomed best when motivations were rooted in a biblical understanding of vocation (Volf, 1991). Over the centuries, Catholics have pointed to similar influences on work—including the authority of scripture—but they have also considered the shaping forces of the Vatican and Catholic Social Teaching on patterns of marketplace activity (Miller, 2007; Miller & Ewest, 2013a; Roels & Wolf, 2012).

As a result of both historic and contemporary influences, a commitment to connect faith to work has gained momentum across marketplace and ecclesiastical communities, alike, as is evidenced by a number of important indicators such as: (1) increasing work and faith specialization across Catholic and Protestant theological traditions (Bolt, 2013; Brand, 2012; Pontifical Council for Justice and Peace, 2014; Self, 2012; Veith, 2016; Wright, 2012); (2) growing attention to a biblical understanding of vocation (Roels, 2003; Russell, 2007; Smith, 1999); (3) an expanding array of popular

publications exploring the topic of faith and work (Hammond, Stevens, & Svano, 2002; Russell, 2007); (4) the spawning of marketplace ministry organizations (Miller, 2007, 2016; Preece, 2004), faith-inspired business-as-mission organizations (Johnson, 2009), and alternative forms of business initiatives (e.g., faith-based social enterprises, co-ops, L3Cs, and benefit corporations; Wilburn & Wilburn, 2014; Wong & Rae, 2011); and (5) an increasing commitment among pastor and seminary networks to help marketplace participants connect faith to the demands of their everyday work (Made to Flourish, 2015; Oikonomia Network, 2015). Moreover, prestigious MBA programs such as the Stanford Graduate School of Business have introduced spirituality into the curriculum (Alsop, 2005; Petersen, 2015). In addition, leadership research has broadened to incorporate spiritual dimensions, and new academic journals and conferences have emerged to meet the growing demand to fuse spirituality and business concerns (Van Duzer et al., 2007). As with many other core identity movements (e.g., race, ethnicity, gender), increasing numbers of individuals are pursuing faith and work integration, seeking to bring all of whom they are spiritually to all of whom they are called to *be* and *do* on the job (Miller & Ewest, 2013b).

Furthermore, in an increasingly globalized economy, where much of the world has moved from industrial patterns of labor (e.g., repetitive, fragmented) to more service, experience, empowerment, and purpose-oriented patterns of work (Friedman, 2005; Hurst, 2014; Woolridge, 2011), commitments to explore personal meaning, calling, integration, and spirituality at work as pathways for improved performance and wellbeing have become increasingly important (Dik & Duffy, 2009; Neal, 2013). New commitments such as cross-training, flexible work patterns, and job crafting (Cascio,

2003; Greenhaus, Callanan, & DiRenzo, 2008) and collaborative learning designs such as communities of practice and distributed teams (Hall, 1996; Hitt, Keats, & DeMarie, 1998; Thompson, 2011; Wenger, McDermott, & Snyder, 2002) have emerged to help address the underlying human challenges that come with changing work demands.

Despite the many forces prompting a search for deeper meaning and spirituality at work, external pressures present powerful countervailing influences. Globalization, rapid changes in technology, evolving definitions and configuring of jobs, outsourcing, and flattening organizational structures have placed strains on both workers and organizations, alike, and have threatened to weaken relational ties in the marketplace (Cascio, 2003; Friedman, 2016; Tippins & Coverdale, 2009). These influences, alongside a continuing bifurcation of work and religion in many faith communities, often lead to personal and organizational imbalances such as family/work disequilibrium, breaches of morality, unjust forms of commercial activity, a preoccupation with short-term results over long-term impact, and abuse of the natural environment (Nash & McLennan, 2001). As the Pontifical Council for Justice and Peace (2014) suggests, “Dividing the demands of one’s faith from one’s work in business is a fundamental error that contributes to much of the damage done by business in our world today” (p. 6).

In recent years, the integration of faith and work has evolved from scattered special interest groups to a more sustained movement within both workplace and worshipping communities (Miller, 2007, 2016). The purpose of this study is to contribute to this movement by validating the Transformative Work in Society Index (TWSI), which captures the relationships among Christian faith, work, and business/economics integration within the larger nomological net of organizational and workplace religion

measures. The TWSI will enable individual workers and organizational leaders to more effectively integrate their Christian faith with their work responsibilities and broader marketplace relationships. The TWSI is specific to the Christian faith and incorporates the full dimensions of what it means to be agentic human beings (i.e., affections/attitudes, behaviors, and cognitions) at multiple levels of engagement in the workplace, which creates greater clarity and precision with respect to the overarching construct and differentiates it from other scales examining spirituality and religiosity.

Moreover, gains achieved by validating the TWSI will open new research possibilities for scholars, as well as applications for employees and managers seeking greater integration, coherence, and impact *at* and *through* work. Thus, one of the goals of this study is to help organizations (e.g., churches, seminaries, non-profits, and businesses) better understand how they can help their members, students, and/or employees lead more integrated lives, where faith makes a difference personally, in the lives of stakeholders with whom they interact, and within broader economic systems (i.e., the term “faith, work, and business/economics integration” is used deliberately and interchangeably throughout with the term “faith-work integration”). Other scales assessing religiosity/spirituality in the workplace either address spirituality at a broad level, which is less relevant to Christianity, or they reflect the Judeo-Christian tradition at a more individual affective and behavioral level without fully addressing the intrinsic (e.g., cognitive) implications of faith, as well as the broader ethical, corporate, and societal implications of faith lived and expressed in the workplace. Development of the TWSI meets important empirical needs for greater precision and contextual sensitivity (Hill & Pargament, 2008).

As a model for faith, work, and business/economics integration, the literature review that follows first considers Christian higher education's quest to both properly articulate and operationalize faith and learning integration. Based on this historical framework, the meaning and achievement of faith and work integration is more carefully considered. To construct a definition of Christian faith, work, and business/economics integration, the review then turns to Christian theology and its *telos* (i.e., ultimate end goal) of biblical *Shalom*, a Hebrew word that means wholeness, wellbeing, human flourishing, peace, harmony, joy, and beauty (Hunter, 2010). As the decisive achievement of the Christian narrative, wholesale biblical shalom is foundational for considering integration outcomes at both an individual and organizational level.

The literature review then examines the uneasy relationship that has often existed between ecclesiastical and work communities, and, in the social and managerial sciences, the contrasting viewpoints that have often prevailed with respect to spirituality and religion. Once these definitional debates have been addressed, Christian theology and psychological theory are reintroduced to both elaborate and crystallize the construct of Christian faith, work, and economics integration. More specifically, human identity (i.e., what it means to be fully human *at, in, and through* one's work) is examined through the lenses of divine image bearing, human agency, and meaning making for purposes of operationalizing the TWSI and demonstrating its advantages over other related measures.

Lessons from the Integration of Faith and Learning

Although the "Faith at Work" movement in North America is relatively new, the faith and learning dialogue in both Protestant and Catholic colleges/universities traces some of its deepest roots to the mid-late 1800s, when increasing forces of secularization,

scientific methodology, and the elective system began to threaten more classical models of religious education (Adrian, 2003). Within Evangelical higher education, faith and learning integration has been a topic of conversation and debate for nearly 60 years, drawing on the early Dutch reformed commitments of cultural engagement (Glanzer, 2008). In the Dutch Reformed tradition, faith influences all dimensions of life (Entwistle, 2015; Glanzer, 2008; Stevenson, 2007), and by extension can guide both practitioners and researchers interested in faith, work, and scholarly integration. Consequently, many educators steeped in this tradition, and other backgrounds, as well, believe Christian faith should be integrated within the life of the university, thus challenging the early thinking of Tertullian, church father and early apologist (ca. 150-225), who asked rhetorically, “What indeed has Athens to do with Jerusalem?” In the context of this study, the question is not so much *if* faith should inform vocational pursuits, but how and in what ways Jerusalem should shape Athens. Vocation is therefore understood as personal identity expressed in support of God’s work in the world (Bolsinger, 2014).

A historical understanding of the integration debate within the academy invites deeper reflection upon the construct of integration itself, and more particularly, how integration might be best defined and achieved with respect to Christianity, work, and economics. The etymology of *integration* comes from a root word from which we also get *integer*, which means a whole number rather than a fraction (Entwistle, 2015). Thus, integration signals unity and coherence, rather than compartmentalization.

In higher education, scholars have sought varying ways to understand both the content and process of integrative Christian education, and thus are often described as either *harmonizers*, *compatibilists*, or *delimiters* (Wolterstorff, 2004a, 2004b, 2004c).

Harmonizers adapt their understanding of Christian faith so it conforms to their understanding of personhood as defined by their discipline. Accordingly, personal faith is revised to harmonize with the demands of one's scholarship (Wolterstorff, 2004b). By contrast, compatibilists do not seek to resolve scholarly and theological discrepancies or tensions but rather allow two conceptions of reality to co-exist. Science and religion "are simply two languages, each with its own vocabulary, speaking about one complex reality; difficulty arises when we try to mingle the languages" (Wolterstorff, 2004b, p. 38). In many regards, this approach is commensurate with a compartmentalization strategy, wherein faith is not to be brought into the workplace, and discussions of work are to be kept out of the pulpit and pews. However, many academics do not feel content living as compatibilists and instead pursue a path of delimitation in which they constrain the scope of their scholarship so it can co-occur alongside their faith (Wolterstorff, 2004b, 2004c). As one might imagine, this strategy tends to impugn certain scholarly questions, ultimately resulting in less robust research and a closeting of inquiry that eventually limits societal flourishing more broadly.

In response, Wolterstorff (2004b) calls for an alternative approach—a method he refers to as psychological revisionism through responsible agency—in which Christian faith simultaneously guides and critiques one's understanding of academic learning. When pursuing this approach, Christian scholars may on occasion be prompted to support prevailing theory, but they may also be impelled to reappraise theory, depending on the degree to which good science and sound theology either support or contradict one another. Accordingly, when pursuing integrative scholarship, one should encourage a

didactic conversation with the discipline itself, even considering how academic fields reveal God's truth and purposes (Green, 2014).

Following Wolterstorff (2004b), and drawing on Niebuhr's (1951) classic *Christ and Culture* typologies, faithful discourse (i.e., integration of faith and learning) may involve a variety of responses such as rejecting academic theory, holding faith and theory in paradox, accommodating theory, synthesizing faith and theory, and/or transforming theory (Glanzer, 2008). Siker (1989), who applied Niebuhr's typology to business ethics, serves as a potential model for how to think about integration in broader marketplace contexts. At times, Christ stands in opposition to business practice (i.e., Christ against Culture), especially when business is incongruent with a Christian ethic. In other instances, Christ and business practice can be viewed as indistinguishable (i.e., Christ of Culture), especially when there is lack of conflict between the commands of Christ and the demands of commercial enterprise. These two polarities are relatively easy to understand; however, at other times a faithful response may be less clear, prompting business practitioners to pursue one (or some combination thereof) of three intermediary positions. For example, Niebuhr's "Christ above Culture" framework assumes ethical maturation requires a graduated level of development guided by divine law and theological commitments such as justice, co-creation, and stewardship (Siker, 1989). Niebuhr's "Christ and Culture in Paradox" position imagines Christ and business in a dualistic power struggle, of which business practitioners seek to join in and do what is right, even though earthly transformation is limited (Siker, 1989; Van Duzer, 2010). Finally, Niebuhr's "Christ Transforming Culture" position views business as a venue for

restoration. Rather than working *against* or *around* business, businesspeople work within it to bring change that aligns with God's purposes (Siker, 1989; Van Duzer, 2010).

An important takeaway from Niebuhr's (1951) thesis is that integrative cultural work does not universally endorse one strategy over another. Rather, integration challenges Christians to consider how various approaches to uniting faith and work might be appropriate in different situations (Siker, 1989). Thus, integration may be more complicated than merely fusing two themes (i.e., faith and work) into a single construct. Integration presupposes some degree of specificity with respect to the unique theological perspective offered as the means for coherence (Strawn, 2016). It also presupposes a degree of specificity with respect to the unique work situation and challenge encountered.

In the context of this study, integration is pursued by considering all of work and life through a Christian theological lens, which begs the question, what is the coherent theological lens through which to approach life/work challenges and vocational transformation? Biblical shalom—a flourishing world with greater numbers of people reaching their full potential as thinking, feeling, and doing image-bearers of God (Gerson, Summers, & Thompson, 2015)—is one such approach that maintains a coherent yet fluid framework for addressing such challenges. While adhering to unchanging biblical precepts, shalom invites varying affective, behavioral, and cognitive responses for assessing what is best and most true given evolving workplace and economic realities. Shalom represents for individuals and institutions, alike, "...the enduring and encompassing experience and expectation of restful, secure, holistic well-being..." (Willard & Black, 2014, pp. 30-31).

Shalom: A Model for Biblical Integration

In framing integration around concepts of shalom and cultural renewal, some Christian scholars draw on the biblical themes of creation, fall, redemption, and final restoration (new creation) for guiding their visions of work and faith (Daniels, 2012; Glanzer, 2008; Van Duzer, 2010; Van Duzer et al., 2007; Volf, 1991). Placing an emphasis on the major acts of the biblical story highlights the role humanity plays in joining with God in creational and restorative work (Glanzer, 2008). More specifically, the Genesis creation accounts depict God's intended purposes for the created world, and men and women's divine call to image God in co-stewarding creation (Van Duzer et al., 2007). God assigning cultural tasks to human beings (i.e., culture making) in Genesis 1-2 reinforces the idea that work in all its forms is intended to be a channel of blessing for God, others, and oneself (Genesis 1:26, 28, 2:15; Daniels, 2012; Van Duzer et al., 2007). However, the "fall" (i.e., human rebellion), as depicted in Genesis 3, portrays humanity's denial of God's good intentions, and the ensuing severing of relationships that unfolds (i.e., broken relations between God and humanity, human beings with one another, human beings in relation to the natural world, human beings in relationship to work itself, and institutions in relation to one another; Daniels, 2012; Van Duzer et al., 2007). When further tracing the biblical arc, the fall is followed by God's ongoing reconciling work and ultimate act of new creation, when the full vision of God's good intentions for humanity will be decisively fulfilled (Mouw, 2002; Wright, 2008).

Narrative theology, a growing movement within the theological academy, lends support to the biblical storyline and suggests that individual lives take on greater meaning when embedded within the bigger storyline of scripture. Personal wholeness emerges

when people are socialized into the Christian view of reality (Rossouw, 1993). At a foundational level, narration is what provides coherence to individuals' lives and strengthens a sense of selfhood (Reed, Freathy, Cornwall, & Davis, 2013). Central to narrative theology is the belief that the Bible is not merely a compendium of theological precepts, but rather a retelling of God's historical revelation and acts of redemptive love (Reed et al., 2013). Furthermore, as Reed suggests, narrative theology presumes that God's ongoing revelation is expressed through faith communities themselves as "living stories" that bear witness to the grand story of God's actions in the world. Thus, ecclesiastical communities, including "faith at work" communities, take on greater meaning and purpose when deeply connected to the larger biblical narrative.

The theological vision of shalom serves as an important organizing principle for integration, but the coherent Christian life also involves an interactive cycle of learning and rehearsal in which a person reborn in Christ grows in sensitivity to grace and responsiveness to the path of holiness (Collins, 2007; Oden, 2001). Rather than a straight cause-effect approach to growth, spiritual maturity often results from a combination of knowledge, imagination, possibility, and action, all working together in a "seamless robe" (Stevens, 2006, p. 142). Stevens (1999, 2006) describes this robe as an interweaving of orthodoxy, orthopraxy, and orthopathy, which together lead to human flourishing. Orthodoxy ("right" or "straight" glory/worship) comprises correct thought. The Bible invites people to love God with their minds (Matt. 22:37; Phil. 4:8) by thinking holistically, critically, and devotedly, and by bringing all thoughts into conformity with Christ (2 Cor., 10:5; Stevens, 2006). Orthopraxy encompasses right or straight practice—actions that are in harmony with God's good intentions for the church and for the world

(Mic. 6:8; Matt. 5:48, 19:21; Stevens, 2006). Human beings manifest their full humanity by faithfully worshipping, loving, serving, and doing, not just by knowing propositional truth (Smith, 2009; Stevens, 1999). Lastly, a Christian cycle of learning involves right attitudes and affections (i.e., Orthopathy); human beings become clearer image bearers when they increasingly learn to love the things that are of priority to God (Luke 10:27-28; Smith, 2009; Stevens, 1999). As a result, a life of integrated faith in the marketplace is characterized by cognitions, behaviors, and affections that reflect God's spirit and character—love, joy, peace, patience, kindness, goodness, gentleness, faithfulness, and self-control (Gal. 5:22-23; Erisman & Daniels, 2013). Entwistle (2015) describes integration as both a noun and a verb:

“Integration is *a priori*, a thing that we discover when we are uncovering the fundamental unity that God created, however much it might currently appear to be *dis-integrated*. On the other hand, *integration* is also something we do as we create ways of thinking about, combining, and applying psychological and theological truths. If Christ lays claim to all of life, then the work of integration becomes not just feasible, but imperative.” (p. 18).

Integration occurs most freely when people connect cognitions to behaviors, as well as new experiences within an existing framework of self-knowledge (Weinstein, Przybylski, & Ryan, 2013). When people function in an integrated capacity, they have greater access and awareness of their underlying emotions, motives, and meanings driving their actions, which enables them to better match behaviors to values and goals, and often results in positive outcomes such as wellbeing, sustained energy, prosocial behavior, and positive relationships (Weinstein et al., 2013).

Within faith communities, integration is pursued as a spiritual goal because it leads to greater meaning, maturity, flourishing, and acts of service. Spiritual development is a common theme emphasized throughout the Christian scriptures, which also reflects a goal to be pursued in present-day life (Foster, 1988; Willard, 2000, 2002). Repeatedly, God calls human beings to pursue maturity with perseverance (Heb. 6:1; Jas. 1:4), and to increasingly reflect the image of Christ in all that they say, do, feel, love, and think (Matt. 22:37; Eph. 4:11-16; Majerus & Sandage, 2010). More specifically, the Christian scriptures invite character formation that unites affective, behavioral, and cognitive components of personhood (Wong, Franz, & Baker, 2015). The Hebrew word for “heart” (*leb*) can also mean “mind,” or the center of consciousness and deliberateness (Wong et al., 2015). Thus, a person of Christian maturity is an individual who *lives* (i.e., reflects) an integrated and holistic life. In the workplace, a holistic life includes the mind, body, and soul woven together into a seamless whole (Miller & Ewest, 2010).

Defining Faith, Work, and Economics Integration

Christian faith, work, and economics integration is both a scholar- and practitioner-led effort to consider how one’s work embedded within economic relationships can be shaped and guided by Christian theology, affections, practices, and commitments. Since the clear majority of employees in the U.S. are employed by businesses, and business accounts for the preponderance of economic output (U.S. Census Bureau, 2015; U.S. Small Business Administration, 2016), experiences and perceptions of business with respect to faith, work, and economics integration are of vital importance. The terms *economics* and *business* are not synonymous; however, they are used somewhat interchangeably throughout this study, as one of the most routine ways

individual workers experience economics—independent of their own employment—is through the myriad of business transactions in which they regularly engage.

Based on previous work that links spirituality to positive individual and organization outcomes such as job satisfaction, organization commitment, and organizational culture (Bell-Ellis, 2013; Jurkiewicz & Giacalone, 2004; Lynn, Naughton, & Vanderveen, 2011, 2013; Walker, 2013), the underlying premise of this research is that people, organizations, and society, more broadly, are at their best when employees can bring all of themselves into their workplaces. Stated another way, faith, work, and economics integration, as a unifying construct, reconnects dimensions of personhood that are intended to be united for personal and societal shalom. When individuals are empowered to express their true selves at work—heart, soul, mind, and strength—individual performance, ethical conduct, and general contributions to the common good increase. In the context of this study, individual performance is assessed through specific criterion variables such as ethical behavior, task/contextual performance, turnover intentions, and faith maturity.

Moreover, with a reach that exceeds traditional church communities, businesses and other employing organizations can create a viable venue for relational and spiritual development (Knapp, 2012). Since the global population of 6.9 billion people is comprised of 2.2 billion Christians (Pew, 2011), the potential impact of the TWSI for individual Christians, marketplace organizations, and ecclesiastical bodies is significant. Thus, the foundation of this research is to validate within the broader nomological net of theoretical relationships a new measure for Christianity, work, and economics

integration, which incorporates affective, behavioral, and cognitive factors that lead to better work performance and reflect greater coherence in work-related commitments.

In contrast to a more general and abstract spirituality, which often lacks objective behavioral and cognitive criteria, Christianity offers a distinct framework or *telos* for directing human agency. Workplace Christians who seek to connect faith to their responsibilities are engaged in three primary activities: pushing against life-diminishing forces; raising levels of spiritual consciousness; and fighting injustice (Nash & McLennan, 2001). These behaviors require a high degree of faith-work synthesis and coordination across varied workplace roles such as supervisor, employee, customer, supplier, and shareholder. For deepening levels of faith-work integration, individuals must be aware of the roles they are engaging and *how* and *why* they are acting, feeling, and thinking accordingly in each of these roles.

Moreover, with respect to integration, individuals function at multiple levels within work contexts. First, they must manage themselves and relate to colleagues and other stakeholders within their own organizational boundaries. Second, they must concern themselves with key partners (e.g., customers, vendors, suppliers) outside their organization but with whom they deal directly. And third, they must interact with other external stakeholders (e.g., shareholders, owners, the natural environment, legal boundaries, industry standards) of which they may not interface directly but whose interests they must consider. Individuals demonstrating Christian faith, work, and economics integration can ascribe Christian attitudes, behaviors, and cognitions to unique situations at each of these levels. A call to love and serve others well in the marketplace considers the interests of the full sphere of participants who may be affected by one's

decisions (Daniels, 2012; Knapp, 2012). Research in psychology of religion and in family psychology demonstrates that individuals are less likely to treat an aspect of their life as unsacred if they have been able to conceptualize it as sanctified and sacramental (Day, 2005). Thus, an individual who sees parts of his/her work as holy at any one of the three levels will increasingly begin to understand all of work as sacred vocation.

Christian faith, work, and economics integration is enacted through a wide range of religious commitments, such as social justice, personal piety, competence at work, work as a venue for service to others, work as a form of self-expression, and work as a way to generate income for financial giving (Keller, 2012). Keller further notes that integration reverses the disintegrating effects of sin, which touch all dimensions of human life: physical, spiritual, relational, psychological, economic, cultural, temporal, and eternal. Individuals who seek integration strive to serve others, aid society, contribute to their professional guilds, practice competence, and give witness to Christ (Keller, 2012). They seek to utilize power and agency constructively to serve the welfare of others (Crouch, 2013).

In validating the TWSI, the historical relationships among faith, work, psychology, and the church will be examined. Subsequently, a more comprehensive theoretical foundation for faith, work, and economics integration will be established, drawing largely on Christian theology, and social cognitive, self-determination, and collective and narrative identity theories. It should be stated that this study adopts a post-positivist view of the world, which recognizes that an objective reality does exist but cannot be perfectly understood in all its nomothetic and emic applications (Ponterotto, 2005). Consequently, the TWSI, grounded in Christian theology and the biblical

narrative, presumes that Christianity offers a compelling, true, and holistic framework for understanding human life, work, and the overlapping web of associations within economic relationships. Therefore, the biblical vision for ultimate shalom is not lacking; rather, our ability to interpret and apply scripture is what falls short (Porter, 2010).

Faith, Work, and Economics Integration and Individual/Organizational Outcomes

Spirituality and religion have typically been operationalized as the affections, cognitions, experiences, and behaviors that stem from a pursuit of the holy (Hill, et al., 2000). Even with limited and abstract construct operationalizations, many studies have found positive correlations between spirituality/religion and organizational outcomes such as commitment, productivity, job satisfaction, altruism, and other beneficial work results at both individual and organizational levels (Benefiel, Fry, & Geigle, 2014). Moreover, strong linkages have been established between work-related calling and higher life satisfaction, lower stress, and reduced incidents of depression (Duffy, Allan, Autin, & Bott, 2013; Horvath, 2015; Treadgold, 1999). Faith-work integration has also been linked to healthier employees and organizational outputs (Lynn et al., 2013; Walker, 2013).

However, alongside these positive outcomes, researchers have found conflicting evidence related to faith-work integration criterion variables. For example, Walker (2013) found a positive relationship between faith-work integration and turnover intentions, a negative relationship between faith-work integration and job performance, and non-significant relationships between faith-work integration and life satisfaction and job satisfaction. The nature of these conflicting results necessitates further scholarly inquiry and a better understanding of the faith, work, and economics integration construct. This research will seek to further clarify these relationships; however, prior to

examining expected outcomes, an important excursus on the often-fragile relationship between the church and the marketplace will be undertaken. Understanding some of the dynamics behind the tenuous relationship between marketplace and ecclesiastical bodies is important for better understanding the purpose behind the TWSI.

Faith and Work: A Complicated Relationship

As the field of psychology has warmed to relationships between faith and positive work-related outcomes, a slow but strengthening connection has been cultivated among various faith and marketplace communities. Historically, this has not always been the case. According to Nash and McLennan (2001), a deep chasm has often existed between clergy and business leaders. Historically, each group has felt misunderstood, and has often restrained its willingness to embrace the other. As a result, coping strategies have frequently taken over, creating “a state of moral and intellectual entropy” characterized by dualistic thinking and closed systems of learning that have further heightened the divisions (Nash & McLennan, 2001, p. 66).

More specifically, clergy and businesspeople have often approached economic issues from widely divergent perspectives. Ecclesiastical leaders often take a distributive approach to economic matters (e.g., wealth redistribution), whereas marketplace leaders are often encouraged to pursue business from an additive perspective (e.g., job creation, entrepreneurship; Nash & McLennan, 2001). Clergy’s perspectives often form during seminary years, when issues of vocation, markets, and organizational life are not commonly addressed as part of the theological curriculum. When economic issues do arise, training tends to focus on the marketplace *en masse*, and clergy are often not encouraged to wrestle with the distinctions inherent in business life across varied

industries and organizational contexts. As a result, clergy can view business in straightforward yet naïve ways, which is unfortunate given the diversity of their workplace congregants, who routinely manage a myriad of stakeholder relationships such as employees, customers, vendors/suppliers, financiers, shareholders, government officials, and other community members (Nash & McLennan, 2001).

Businesspeople can bring their own biases, often failing to recognize the full import of marketplace activity as laden with sacred potential. This false sacred-secular dichotomy has deep roots in Greek dualism dating to the early church (Ottaway, 2003; Stevens, 1999), as well as a misunderstanding of the Two Kingdoms (or Two Governments) doctrine, often associated with Lutheranism, which, when erroneously interpreted, understands the spiritual realm (i.e., matters of the soul) and earthly dimensions of God's reign (i.e., institutions of culture that apply to all people) as disjointed activities, rather than two unique expressions of faithfulness to God (Marty, 2004; Sockness, 1992). For marketplace leaders, these misunderstandings often start early. For example, business students are not always taught the importance of a moral and religious framework for engaging their marketplace endeavors, which can carry over into later career and professional life (Ruhe & Nahser, 2012).

As a result, deeply committed marketplace leaders can disengage from church life (Griebel, Park, & Neubert, 2014; Lindsay, 2007), and deeply committed clergy can unplug from the concerns of the marketplace (Nash & McLennan, 2001). Business leaders often remain deeply dedicated to other forms of religiousness, such as joining prayer groups, engaging in Bible studies, and locating themselves within networks of like-minded leaders, but they do not always consider the full benefits the institutional

church can offer them for their spiritual development (Lindsay, 2007). Similarly, religious leaders often employ marketplace strategies and methodologies in church administration without fully understanding the spiritual import of the range of marketplace vocations resident in their churches.

The current environment is complex, as is the longer-term history of faith and work. However, the modern emergence of the “faith at work” movement, often described as a “lay renaissance” or “second reformation” (Hammond et al., 2002), can be understood as a river being fed by several different tributaries, which includes the streams of social justice, accountability groups, and revival and witness in the world (Keller, 2012). By some estimations, the riverhead of the faith at work movement dates to the 6th Century, when the Christian church was more fully united, and St. Benedict wrote his rules for monastic life, which underscored the integration of hospitality, prayer, work, and community life, among other Christian commitments (Chittister, 2010). Contrary to later monastic tradition, St. Benedict viewed the monk’s work in his shop as equally sacred to his hours spent in prayer (Benefiel et al., 2014).

After the split of the Eastern and Western churches in the 11th Century, and the Protestant Reformation in the 16th Century, all three Christian traditions (i.e., Catholicism, Orthodoxy, Protestantism) had to find their own moorings with respect to faith and work. The Protestant tradition anchored its faith and work ethic in the teachings of early reformers, such as Martin Luther, John Calvin, and the Puritans, who elevated the value of everyday work to sacred status (Cavanaugh, 2016; Miller & Ewest, 2013c; Rosso, Dekas, & Wrzesniewski, 2010). Calvin saw all of life as an opportunity to respond to one’s vocation, and all work as an opportunity to answer God’s call to serve

faithfully in the world (McNeil, 1960; Wong & Rae, 2011). Moreover, the Reformation brought the Bible to the masses in the vernacular, shifting the locus of control from a small group of ecclesiastical leaders to the common people, thus tightening the link between scripture and everyday moral instruction (Donkin, 2001; Marty, 2004).

In contrast to early Protestant moorings, Catholics turned to centuries of Church teachings to solidify their commitments to faith and work integration, particularly recent papal encyclicals, such as *Laborem Exercens* (1981), *Centesimus Annus* (1991), and *Caritas en Veritate* (Miller & Ewest, 2013c; Volf, 1991). Historically, the Eastern Orthodox tradition understood life, including work, as a sacramental offering (Schmemmann, 1973). Thus, consistent with Schmemmann, some of the spiritual versus material divides that characterized Catholic and Protestant traditions were less pronounced in the Eastern Orthodox tradition. With respect to confirmation of baptism, for example, Schmemmann observes that “the whole man is now made the temple of God, and his whole life is from now on a liturgy” (Schmemmann, 1973, pp. 75-76).

Miller (2003) observes three broad waves within the modern faith at work movement over the last 125 years. The *Social Gospel* era (ca. 1890-1945) emerged when Walter Rauschenbusch, a Protestant pastor, and Bruce Barton, a Christian advertising executive, rediscovered the importance of faith with respect to work and broader societal concerns (Miller, 2007). At about the same time, Pope Leo XIII’s social encyclical, *Rerum Novarum*, offered similar principles for cultural engagement for Catholics (Miller, 2007). As Miller (2007) notes, the *Ministry of the Laity* era (ca. 1946-1985) took root after World War II, when a host of special-purpose groups were launched with a focus on ministry in daily life, and the Second Vatican Council (1962-65) affirmed for Catholics

the sacredness of daily labor. The current *Faith at Work* era (ca. 1986-present) emerged when workers, amidst rapid change and economic pressure, sought to integrate their personal faith with the demands of their work (Miller, 2007).

As this historical backdrop demonstrates, people have traditionally comprehended faith and work in a variety of ways. The traditional Jewish and Christian understandings—rooted in both the Old and New Testaments, respectively—view human work as a divine call to image God in daily activity (Van Duzer, 2010; Volf, 1991). God’s first command to humanity was to co-steward creation (Gen. 1:26-28, 2:15), a principle that is repeated regularly throughout the scriptures, including to Noah after the flood (i.e., a time of judgment; Gen. 9:1-3). Moreover, the Bible draws on a wide variety of metaphors to describe God as a worker (Stevens, 1999). Descriptions such as farmer (Hos. 10:11), shepherd (Ps. 23:1-4), builder and architect (Prov. 8:27-31), metalworker (Isa. 1:24-26), teacher (Matt. 7:28-29), and potter (Isa. 64:8) are utilized throughout (Stevens, 1999). Consequently, the sacredness of work was deeply valued by the ancient Jewish people, as expressed in the Pentateuch (first five books of the Old Testament) and the Talmud (an early collection of rabbinical writings; Ottaway, 2003). Early Christians also understood creation as sacred (Ps. 24:1), and work in the world as holy activity, a primary endeavor by which to join God in co-creative and co-restorative work, bending back the effects of sin and brokenness (Matt. 28: 16-20; Col. 1:15-20). Thus, according to the Jewish and Christian traditions, work has both instrumental value (e.g., supporting one’s family and the mission of the synagogue and/or church), as well as intrinsic value, whereby good work brings meaning and purpose, reflects God’s nature, and functions as a holy altar of devotion and service (Wong & Rae, 2011). When human beings engage in

good work motivated by good ambitions, they function as image-bearing ambassadors for God's greater purposes (2 Cor. 5:17-20).

The Judeo-Christian view of work remains distinctive among religious worldviews. Work is not viewed as a curse or lower-order activity, but rather a pursuit in which God takes great delight and shares freely with humanity (Keller, 2012). Men and women are created as God's workmanship and are designed for good works that have been prepared for them in advance (Ps. 8:3-8; Eph. 2:10). Human beings function as fully entrusted gardeners in God's commons, not leaving the land and resources as they are but rearranging them for fruitfulness "to draw the potentialities for growth and development out of the soil" (Keller, 2012, p. 58). The workplace itself is even portrayed as sacred ground—a venue for God's redemptive activity. Of the 132 public appearances of Jesus in the New Testament, 122 take place in the marketplace; of the 52 parables told by Jesus, 45 are centered in the marketplace (Stevens, 2012).

Over the centuries, a misunderstanding of faith as it relates to work has recurred, the seeds of which might have been planted in the classical Greek period when work was held in low regard. Words such as *ergon* (burden) and *ponos* (toil) were commonly used in this ancient era to describe human labor (Stevens, 1999). Strands of Greek dualism were evident in the lives of early Christians, especially when believers found themselves embroiled in deep cultural battles with an impure world and busily preparing for what they believed would be the immanent return of Christ (Ottaway, 2003). Greek dualism also carried over into the medieval traditions; work that served temporal needs such as trade, agriculture, and homemaking was viewed on a lower plane, but work that was viewed as serving eternal pursuits was to be highly esteemed (Ottaway, 2003; Stevens,

1999, 2006, 2012). Greek dualism even extended into the Renaissance and Industrial periods, and is evident in contemporary society when many forms of everyday work are viewed as having limited intrinsic value (Stevens, 1999).

Today, when ministerial work is held in higher regard than other forms of work, medieval dualisms are operative (Stevens, 1999). As Stevens notes, when physical labor is considered less honorable than creative, artistic, and/or religious work, the false dichotomies of the Renaissance period reassert themselves. Moreover, when output and efficiency are valued over human identity and coherence, the vestiges of the Industrial era reemerge in ways that prompt patterns of practical agnosticism (Miller & Ewest, 2010). And lastly, in our postmodern context, a new heterodoxy often surfaces, one that overemphasizes human labor as the primary channel for personal identity and meaning. As a result, post-modernism often expects too much from work. Rather than meaning derived from a loving relationship with God, significance is often found in individualism, autonomy, and privatism (Keller, 2012; Stevens, 1999). Accordingly, personal experience, interpretation, and competition, rather than moral and/or community-held ideals or a shared vision for the common good (i.e., *telos*) become the barometer for significance, value, and progress (Keller, 2012; Stevens, 1999).

With this theological and historical backdrop established, underlying theories describing the web of hypothesized relationships between faith and work will now be considered. A preliminary step is to pursue a clear understanding of the differences between religion and spirituality, which is critical for establishing and validating the TWSI. Toward this end, an evaluation of some of the traditional measures that have been utilized to capture religiosity, faith maturity, and faith-work integration will be

considered. Moreover, in establishing a framework for *how*, *why*, and *when* faith, work, and economics integration occurs in real-life work contexts, a theological basis for human identity will be pursued, as will the supporting psychological theories of social cognition and collective and narrative identity. This ensuing theoretical discussion paves the way for the operationalization of the TWSI, and its validation within the larger nomological net of hypothesized convergent, discriminant, and criterion relationships.

Religion Versus Spirituality

Within psychological assessment, there are over 150 religiosity and spirituality scales available (Hill & Hood, 1999; Lynn, Naughton, & Vanderveen, 2009). Agreement in scale development and operationalization of spirituality and religion can be challenging (Emmons & Paloutzian, 2003; Kapuscinski & Masters, 2010). For example, spirituality can be problematic in its operationalization when it is defined generically and without differentiation to other belief systems (Lynn et al., 2009). Religion also presents its own assessment problems when only captured through forms of church attendance or other observable religious behaviors (Wink & Dillon, 2002). Consequently, spirituality and religion are increasingly described as “narrow band” constructs that largely stand in opposition to one another, rather than to serve or complement one another (Zinnbauer, Pargament, & Scott, 1999).

Therefore, one of the first tasks for developing the TWSI is to understand the similarities and differences between these constructs. Historically, the operationalization of religion and spirituality share significant overlap, with belief in the transcendent and sacred as commonality (Duffy, Reid, & Dik, 2010; Hill & Pargament, 2008; Kapuscinski & Masters, 2010). In research, spirituality has often focused on the personal. In contrast,

religion has included both personal engagement, as well as institutional practices embedded within sacramental communities, such as church-sponsored work and faith accountability groups. More specifically, religion is anchored in religious traditions, which extend beyond the individual and incorporate multiple conceptions of the transcendent such as (1) time and space (e.g., Advent, Lent, Ramadan, synagogue, temple); (2) events and transitions (e.g., birth, marriage, burial); (3) physical materials (e.g., rosary, elements of communion, incense); (4) cultural products (e.g., art, literature, music); (5) people (e.g., rabbi, priest, pastor, monk, imam); (6) psychological attributes (e.g., meaning, well-being); (7) social characteristics (e.g., forgiveness, grace, justice); (8) practices (e.g., confession, forgiveness, pilgrimage); and (9) roles (e.g., spouse, parent, elder, lay leader; Zinnbauer et al., 1999).

Religion is also tied to a creed, set of moral beliefs, and/or practices of shared worship and community, whereas spirituality is focused largely on experiences of self-transcendence found through individual occurrences of inner peace and coherence (Boswell & Boswell-Ford, 2010). Consequently, religion is not reflected through a single individual's belief system, whatever the schema may be; rather, religion represents the broader set of moral beliefs and commitments shared by a larger group of individuals to make sense of human existence (Miller & Ewest, 2013a).

One of the more popular instruments examining religiosity is Allport and Ross's (1967) intrinsic and extrinsic (I/E) religiousness scale in which "the extrinsically motivated person *uses* his religion, whereas the intrinsically motivated *lives* his religion" (p. 434). Gorsuch and McPherson (1989) revised the I/E scale, which is now often considered one of the most psychometrically sound and widely used religious measures

available. The Quest scale—an extension of the I/E scale—was first developed by Batson (1976). In addition to intrinsic and extrinsic dimensions, a third orientation, called Quest, was added to capture a more fluid exploration of existential questions. However, there seems to be growing agreement that the I/E framework is not the most effective measure presently available given the current cultural landscape (Slater, Hall, & Edwards, 2001). In an increasingly secularizing world, the *E* dimension is often deemed problematic, since individuals no longer regularly pursue religion to gain personal status within their communities (Slater et al., 2001).

Moving beyond the I/E and Quest assessments, there are many common dimensions found among faith-based measures, which regularly include a search for the sacred alongside emotive and cognitive dimensions (Kapuscinski & Masters, 2010). Nonetheless, universal instruments that seek to capture all forms of spirituality and religion can sacrifice knowledge in their pursuit of relevance (Moberg, 2002). When distinctive elements of faith traditions are deemphasized or omitted to accommodate all religions, important differences among groups are concealed. Scholars warn that research should not treat religion—a multilayered construct—monolithically and with singular main effects (Cacioppo & Brandon, 2002). Rather, religious traditions should be analyzed for their own corresponding effects.

One of the clearest definitions of both religion and spirituality, and their construct overlap, comes from Hill, et al., (2000), who describe both religion and spirituality as “the feelings, thoughts, experiences, and behaviors that arise from a search for the sacred” (p.66). According to Hill et al., “search” implies an effort to find, express, uphold, or transform, and “sacred” refers to a divine being, object, reality, and/or truth.

However, religion necessitates two other important criteria: (1) religion involves pursuit of a non-sacred objective such as meaning, belonging, and wellbeing in a context that has as its chief aim the search for the sacred; and (2) religion involves validation and support of means and processes such as religious rituals and practices across a larger group of people (Hill et al., 2000). Thus, for the purposes of this research, Christian faith is rooted in Christian religious expression, which encompasses a coalescing of one's affections, behaviors, and cognitions toward a love of God, self, and others in partnership with fellow believers (i.e., a larger community of faith) embedded within the larger life of the Christian church worldwide.

Theological and Theoretical Foundations for Human Identity

To build an empirical framework for Christian faith, work, and economics integration, it is vital to explore the theological and theoretical foundations supporting the construct, which are rooted in a doctrinal and psychological understanding of human identity. Integration of faith and work represents a synthesis at multiple levels. At one level, integration is a unification of Christian belief and work within a broader system of embedded economic relationships. Akin to the integration of faith and learning, the integration of faith, work, and economics finds proper expression in work-related attitudes, cognitions, and actions within an ever-changing marketplace (i.e., community of nested economic relationships). For example, in work situations, faithful integration may demonstrate itself by opposing prevailing business practices. In other situations, integration may affirm commonly held cultural practices such as care for customers and the environment, and transparency in accounting procedures. However, in all situations—whether standing *against* culture or *with* culture—an integrated worker

understands business as a venue for God's restorative and transformational purposes. Accordingly, following Niebuhr's (1951) *Christ and Culture* typology, an integrated worker (as assessed by the TWSI) sets a course by discerning right and wrong in each work situation, and then seeks to bring healing to that situation by... "demonstrating, personally and through its systems and institutions, the ways of God for the benefit of all people" (Willard & Black, 2014, p. 9). When fully integrated, a person can channel all dimensions of their personhood toward responses consistent with Christian love. Additionally, they can draw on motives, meanings, and emotions for purposeful action in ways aligned with deeper motives and goals (Weinstein et al., 2013).

At its most foundational level, the theoretical rationale for Christian faith-work integration is rooted in human agency, in which individuals make deliberate efforts to connect religious affections, behaviors, and cognitions to work-related demands and commitments. Moreover, Christian faith, work, and economics integration is directional and results-oriented. It is reflected by a formulation of coherence, wholeness, and synthesis that should make a material difference in the way people behave on the job, what they think, and how they feel. Thus, integration should be linked to positive outcomes at both the individual and larger team/unit levels. Lastly, faith-work integration is connected to issues of identity, which are formed from both theological precepts and psychological principles. The ways in which individuals understand themselves, their work, and their responsibility to others flows out of how they comprehend themselves as created beings made in the image of God, as well as agentic beings shaped by traits and life experiences. Consequently, in view of foundational Christian suppositions of creation, incarnation, and restoration, the concept of integration

seeks to understand the underlying psychological principles that explain the unique functioning of human beings in life/work contexts (Entwistle, 2015).

Human beings as image bearers of God. As previously noted, the biblical story follows a narrative arc of creation, fall, redemption, and new creation (Daniels, 2012; Keller, 2012; Van Duzer, 2010; Van Duzer et al., 2007; Volf, 1991). Human beings created in God's image are located centrally within this theological storyline. In the first chapters of the Old Testament, God creates the natural world over five days and then creates humanity on the sixth day. Adam and Eve (and all of humanity by extension) are called to image God in their work and to co-steward creation (Keller, 2012; Stevens, 1999; Van Duzer et al., 2007). God's call to co-stewardship is an invitation to all human beings to join in acts of culture making (Gen. 1:26-28, 2:15; Ps. 8; Crouch, 2008; Van Duzer et al., 2007). However, in the third chapter of Genesis, humanity rebels against God, an event that changes the nature of work and relationships. Consequently, human beings no longer participate in the work of culture in an unsullied manner, but now must push against the countervailing forces that create toil, exhaustion, and frustration. However, mercifully, within this biblical arc, the fall is followed by God's promise of restoration, of which humanity joins Christ as emissaries of reconciliation (2 Cor. 5:17-20). The biblical story ends with new creation, which represents God's ultimate and final act of shalom, a time when creation and the culmination of all of humanity's earthly works and deeds are tested and purified, and the new heavens come down to earth to create a final garden city (1 Cor. 3:11-13; Rev. 21:1-2; Cosden, 2006). This final act joins the best of human culture making with God's final vision for a restored world (Wright, 2008).

Not only does the Bible place human beings in the center of God's unfolding narrative, but within God's story it affirms the importance of human identity as comprised of affections, behaviors, and cognitions rightly attuned to God. The scriptures invite character formation and Christian living that unite affections, actions, and thinking (Wong et al., 2015). Even Jesus himself, when asked to name the most important commandment, singles out love for God, others, and self in an integrated manner that unites heart, soul, mind, and strength (Matt. 22:36-37).

More specifically, the Bible depicts the human heart as the wellspring of life (Prov. 4:23; Matt. 15:18; Luke 6:45), and it emphasizes the importance of right actions as an expression of faith (Isa. 1:17; Micah 6:8; Jas. 2:14-17). Proper cognitions are also a part of what it means to pursue a life of Christian maturity (Phil. 2:2, 4:8; Rom. 8:6, 12:2). When addressing the overarching question of Christian discipleship, Jesus calls for an actual change of identity (rootedness) in the lives of his followers (Luke 6:43), and Paul uses language such as "putting on Christ" to reflect the spiritual transformation that takes place in humans as they reorient themselves to lives of committed devotion (Rom. 13:14; Gal. 3:27; Eph. 4:24; Col. 3:10; Wong et al., 2015). Thus, whole-life discipleship is the natural outgrowth of Christian formation—heart, hands, and head in active devotion of God and service to others.

Social cognitive theory and human agency. Human beings—created by God to exercise agency in cultivating and co-stewarding creation—have an innate desire to grow, develop, and act. The capacity to exercise control over one's own thought processes, motivations, and actions is what makes a person human (Bandura, 1991, 2001). Congruent with the Genesis creation accounts, the main agentic features of Social

Cognitive Theory (Bandura, 1986, 1991, 2001) are intentionality (i.e., power to act and establish goals), forethought (i.e., power to arouse and guide actions in anticipation of events), self-reactiveness (i.e., power to compare current behaviors against goals and ideals), and self-reflectiveness (i.e., power to reflect on core motivations and values). Each one of these dimensions is vital to carry out God's mandate to help construct a fully flourishing society that pushes against the effects of the "fall." To work faithfully and to build culture in ways that serve God and fellow human beings, people must exercise intentionality in thoughts and goals with apt foreknowledge of anticipated barriers. Moreover, they must respond to and reflect upon their progress, represented theologically through Sabbath-keeping practices.

When interpreting an event relative to one's beliefs, goals, and desires, a person will either seek to resolve goal discrepancies through reappraisals of specific situations at a local level, or by restructuring overarching beliefs and goals at a more global level (Park, 2013). Through this process, a person pursues two regulating mechanisms. They either seek discrepancy reduction, in which they lower objectives to reduce discrepancies between stated goals and actual performance levels, or they pursue patterns of discrepancy production, in which they raise personal standards in anticipation of meeting or exceeding goals and objectives (Bandura, 1991). Religiosity invites both reduction and production strategies; human beings are encouraged to strive in their faith without giving up (Matt. 6:33; Luke 13:24), while also taking stock of personal resources and costs in pursuing goals and objectives (Luke 14:28).

Identity and meaning-making for navigating life and work. In exercising agency, human beings seek consistent meaning and identity, which assists them in

interpreting situations accurately and incorporating new knowledge to more successfully navigate life and work (e.g., career choices, on-the-job behaviors; Park, 2012, 2013). Social Cognitive Theory—which emphasizes personal and proxy agency as central to human identity—also makes room for the role of broader relationships in identity formation (Bandura, 1991, 2001). Individuals are driven by an internal desire to grow and gain fulfillment, of which religious expression provides a viable channel, but they are also motivated by a combination of external rewards and reinforcing social contexts in which they operate. Self-determination theory explores and illuminates the interplay between these two forces, clarifying intrinsic drivers as either autonomy (i.e., desire to self-organize and exert self-control), relatedness (i.e., desire to connect and belong to others), and competence (i.e., desire to exert influence and achieve goals; Deci and Ryan, 2000; Ryan & Deci, 2002). Thus, personal identity is formed by self-perceptions of agency and competence, but is also heavily influenced by one’s sense of connection to other human beings.

With respect to relatedness and group belongingness, key elements of collective identity include: (1) self-identification as a member of a particular group; (2) degree of positive or negative attitudes one has toward their social category; (3) salience of one’s group membership; (4) degree of emotional connection one holds toward their group; (5) level of social embeddedness one experiences within their group; (6) degree to which one acts in accordance with their larger social unit; and (7) the extent to which a group reinforces one’s traits, experiences, history, and personal narratives (Ashmore, Deaux, & McLaughlin-Volpe, 2004). In practice, each of these elements is self-reinforcing. In the context of Christian faith, work, and economics integration, personal agency is vital, but

so too are dimensions of collective identity that include the role of others and the role of one's community's relationship with a triune and relational God. If a person identifies with, has positive attitudes toward, finds importance in, is emotionally attached to, and acts in accordance with his/her social group, the degree of collective identity will likely be greater than for a person for whom these core elements are weaker or absent (Ashmore et al., 2004). Commensurate with collective identity theory, church and other faith-oriented communities and accountability groups provide a vital socializing narrative for individuals who seek greater integration among faith, work, and economic relationships.

In addition to the impact of collective identity on self-perceptions, the scripts humans enact and rehearse to make sense of their lives are critical. Drawing on developmental, social, cognitive, clinical, and industrial-organizational psychology, narrative identity research examines how individuals starting in young adulthood incorporate a wide range of internalized stories to make sense and meaning of their lives, all within the context of their unique stage of life, ethnicity, gender, socio-economic class, and historical-cultural settings, which can include marketplace and church contexts (Kreiner, Hollensbe, & Sheep, 2006; McAdams, 1987, 1995, 2001; Singer, 2004). According to narrative identity research, the fragments of an individual's life do not naturally cohere, but rather require deliberate acts of synthesis and meaning-making (Baerger & McAdams, 1999). Narrative identity scholarship seeks to address these questions, while broadening research on personality theory by drawing on three levels of personhood: (1) stable characteristics such as the Big Five personality traits; (2) characteristic adaptations such as goals, motives, and coping strategies; and (3) integrative identity-related stories that connect personal narratives across different life

roles and relationships, as well as across time (McAdams, 2001; Singer, 2004). Thus, narrative identity theory plays a vital role in how people conceive of themselves as either unified or dis-unified human beings, and consequently, has been linked to a variety of indices of psychological wellbeing (Baerger & McAdams, 1999).

Narrative identity theory also draws on Loevinger's (1966) stages of ego development in which individuals at the higher ends of the spectrum tend to interpret their lives in more integrative, multifaceted, and nuanced ways than individuals at the lower end of the continuum. Accordingly, higher stages of ego development demand higher levels of self-understanding and self-awareness in the context of human connections (Bauer, McAdams, & Pals, 2008). As a result, narrative identity is more closely associated with eudaimonic wellbeing, which incorporates a high degree of psychosocial development, as well as self-narratives of human flourishing, virtue, and meaning (Bauer et al., 2008). Eudaimonia is contrasted with hedonic wellbeing, which is focused on happiness, pleasure, and avoidance of pain (Bauer et al., 2008; Ryan & Deci, 2001). Thus, one would expect individuals with higher levels of ego development (e.g., faith-work integration) to exhibit greater degrees of meaning and purpose in life and work. Faith, work, and economics integration necessitates a higher level of understanding of the intrinsic goodness and meaning of work, including how one's work contributes to societal wellbeing and flourishing.

Operationalizing Christian Faith, Work, and Economics Integration

Specifically, within faith and work research, there does not yet appear to be a clear definition of what "integration" entails, and how best to operationalize it. Historically, faith and work integration has been pursued in a variety of forms, most

notably attitudinally and behaviorally, wherein faith and work are intentionally connected and leveraged for pragmatic, ethical, and/or therapeutic purposes (Lynn et al., 2009).

Although there is disagreement in the academic community about what best constitutes integration, Christians in the marketplace readily report the tensions inherent in seeking to work in an integrated manner amidst the myriad of fragmenting economic and cultural forces. Krieger (1994) captures the tensions well: “Virtually all Christians in the workplace relate faith and work explicitly or indirectly, with certainty or with doubt, passionately or lifelessly, with strong integration or no integration. For some, faith and work is a seamless web, richly and creatively connected. For others, they seem like awkward fits or even contradictions, distant and miles apart” (p. 17).

Limitations of the faith and work scale (FWS). The closest operationalization of Christianity, work, and economics integration is the Faith and Work Scale (FWS, Lynn et al., 2009), which consists of 15 items in a single-factor structure. The FWS seeks to capture the extent to which Judeo-Christian practices and beliefs are incorporated into one’s work. According to Lynn et al. (2009), three core assumptions provided direction in constructing the FWS. First, the unit of analysis was individual religious perceptions and behaviors. Second, the scale targeted the Judeo-Christian traditions broadly. And third, workplace religion was viewed as formative and developmental, rather than linear or additive. Each of these suppositions offers strength and contributes to the field; however, the FWS also presents limitations, several of which are addressed below.

As previously noted, the FWS is not specific to the Christian tradition, which generalizes it in ways that may weaken its construct precision. Its focus also includes Jewish adherents, who share significant overlapping religious beliefs and practices with

Christians but who diverge in important ways (e.g., model of Christ as servant leader; role and function of the Holy Spirit; acts of baptism, communion, and other sacraments). In contrast, the TWSI operationalizes attitudinal, behavioral, and cognitive integration for Christians, yet seeks to capture denominational and theological diversity in its function and application.

The FWS is a single-factor construct. Items probe five different categories of faith and work, which include relationships, meaning, community, holiness, and giving. This structure is easy to understand, but as Hill et al. (2000) argue, spirituality and religion are multidimensional constructs and should be described and operationalized as such. In contrast, the TWSI, as developed by Yost and Terrill (2015) was preliminarily understood as a multidimensional construct with up to six unique factors: (1) *Affective*, which captures one's feelings and/or attitudes toward the focal construct of Christianity, work, and economics integration; (2) *Behavioral*, which is best described as one's personal actions at work in response to the focal construct of interest; (3) *Cognitive (personal)*, which is understood as one's rational and personal awareness of the focal construct of interest; (4) *Faith through Work*, which is best understood as God's agency through work and/or an instrumental view of work as a means of carrying out God's purposes *in* and *for* the world; (5) *Faith vs. Work*, which is best described as one's personal beliefs (theological and otherwise) that do not support or cohere to a biblical view of the overarching construct of interest; and (6) *Societal Responsibility*, which is best described as an understanding of work and economic systems that incorporates Christian ethical concerns and societal responsibilities. As has been previously suggested, the Bible regularly invites heart, hands, and head in acts of religious devotion,

worship, and service. Jesus was once asked: “Which commandment is the first of all?” Of which he replied: “You shall love the Lord your God with all your heart, and with all your soul, and with all your mind, and with all your strength” (Mark 12:28, 30, New Revised Standard Version). A life of faith is marked by total commitment, which unites affections, behaviors, and cognitions toward worship of God and service of others.

The FWS sample offered several strengths, particularly its diversity with respect to religious traditions, age, occupations, and industry representation of participants. However, the sample lacked ethnic minority diversity, which limits external validity. For example, African American churches, as well as other ethnic church communities (e.g., Korean Americans), have unique approaches and commitments to faith-work integration. This study seeks to involve a broader array of ethnic communities in its sampling efforts to ensure that greater diversity-related goals (e.g., generalizability) are achieved.

In addition, the FWS had higher skew and kurtosis with Mormons and Evangelicals—but less so with Catholic and Mainline communities—signaling that bias may have been present. Differences in theological traditions can make it difficult to design measures that apply to diverse participants across a wide range of faith traditions, yet that do not subsequently introduce measurement bias (Moberg, 2002). This study considers this threat. In the context of this research, careful attention has been paid to develop items that represent affective, behavioral, and cognitive manifestations of Christian faith that are salient and understandable across a wide variety of Christian traditions and denominations. Theological and workplace terms are presented in language that can be widely understood.

Moreover, the FWS is focused largely on piety issues (e.g., prayer, giving), but less on broader justice and/or ethical concerns. With this emphasis, the FWS may also be less representative of cognitive integration. There are cognitive-oriented items included in the FWS, but they are largely represented through affective and/or behavioral terms. By contrast, the TWSI considers these potential weaknesses and incorporates a wide range of cognitive items that map onto four unique factors: Cognitive (personal), Faith through Work, Faith vs. Work, and Societal Responsibility.

Lastly, the FWS does not consistently deal with broader economic issues. An essential component of a faith-informed understanding of work involves a biblical understanding of economics (i.e., structures of how people work together, steward resources, and participate in the creation and exchange of goods and services; Sherlock, 1996; Willard & Black, 2014). The TWSI presumes that work is not carried out in isolation but rather in concert with others and in organizational settings. The term *economics* is derived from the Greek word *oikos*, which, in ancient times would have been best understood as managing relationships within an organization or family (Dyck, 2013). Employees may carry out tasks in a solitary fashion, but such assignments are almost always nested within a broader network of economic and stakeholder relationships (e.g., co-workers, suppliers, customers, competitors, owners). The TWSI takes stock of these broader economic relationships, and incorporates their presence into its scales.

The transformative work in society index (TWSI). The TWSI seeks to capture the integrative nature of Christian faith, work, and economics as expressed in its affective, behavioral, and cognitive dimensions. As expressed in the context of this study, Christian faith is defined as personal and relational adherence to a Christian

monotheistic worldview that is based on the life and teachings of Jesus Christ, where God is One but expressed and experienced through three persons: Father, Son, and Holy Spirit. Christianity is conceptualized globally through three broad branches (i.e., Catholicism, Protestantism, and Eastern Orthodoxy), and draws on a relational definition of religion (*religio*), an etymology of which means rebinding or re-ligamenting humanity's connection to God (Rohr, 2013).

The TWSI assumes a historic/creedal understanding of the Christian faith. As a result, key concepts captured in items touch on core themes such as creation, restoration, service, justice, stewardship, forgiveness, witness, human flourishing, generosity, and human agency. Mirroring the biblical arc of creation, fall, redemption, and new creation, work is understood as part of God's original and good design (Stevens, 1999; Van Duzer, 2010; Volf, 1991). However, because of humanity's primal disobedience, work now reflects disrepair and frustration that one day will be fully restored by God to its original intent as a vital means of self-expression, service to others, and worship (Keller, 2012).

In the context of this study, economics is understood by its symbiotic potential, in which parties involved in economic exchange benefit from the mutuality of the relationships in which they are involved. At its foundational level, economics involves multiple dimensions of freely-exercised human behavior that involve stewardship and exchange of things of value for the sake of gain (e.g., profit, enjoyment, meeting of needs; Bolt, 2013; Sherlock, 1996). Thus, all workers (and people in general) are involved in economic relationships, which represent the broader ecosystem in which we work and live.

In the context of this research, work is understood as purposeful physical, mental, and emotional energy and labor expended for economic purposes and in exchange for some monetary gain. This definition differs from other common meanings, such as Stevens (1999), who suggests remuneration is unessential for meeting the definition of work. Although homemaking and volunteering are vital vocations, the TWSI sample in this study is limited to individuals who are engaged in paid work in the broader marketplace of exchange. As a result, the TWSI taps employees' affections, behaviors, and cognitions within a larger network of systems and relationships, such as an employee within a company and/or an employee in relationship to a broader array of stakeholders (e.g., colleagues, customers, suppliers). Although homemaking and volunteering include many of these dimensions, layers of embedded work relationships are not always as clearly understood within these roles, and therefore in the context of this study could create confusion for participants completing the measure. For these reasons, the TWSI is validated with a sample of employees engaged in work roles that are linked to pay.

Consequently, Christian faith, work, and economics integration at the individual level reflects a commitment to whole-life discipleship and Christian coherence expressed through a vibrant vocational life rooted within broader work relationships. The TWSI is assessed at the individual level but represents a unified framework of integration that plays out at personal, team/corporate, and societal levels. In general, the development of the TWSI supports both Protestant and Catholic understandings of vocation, which value work as an opportunity to serve God and neighbor in the context of community and service for the common good (Chamberlain, 2012). The construct is also consistent with

an Eastern Orthodox perspective that values work as a sacramental expression of one's relationship to God, creation, and other human beings (Schmemmann, 1973).

Following Wolterstorff (2004b) and Niebuhr (1951), the TWSI recognizes that personal integration may entail a range of responses, each of which might be deemed faithful given the unique work context in which one is located. For example, at times integration may be marked by an affirmation of prevailing marketplace practices that affirm the common good, and, in other contexts, a disavowal of practices and procedures that move against societal shalom. Furthermore, the TWSI views integration as an interweaving of orthodoxy, orthopraxy, and orthopathy (Stevens, 1999, 2006), and values work and faith as both instrumentally and intrinsically meaningful.

The TWSI also follows Miller (2003, 2007), who identifies four ways that people across different religious traditions seek to integrate faith and work. These methods include *Ethics*, *Experiences*, *Enrichment*, and *Evangelization* (Miller, 2007). Central to this theory is the view that each of the four perspectives can be supported biblically and theologically, and that no single expression is less valid than the others (Miller, 2007). *Ethics* concerns itself with issues of personal piety and larger questions of economic and social justice, and it has two primary orientations: (1) community-focused (i.e., social ethics); and/or (2) self-oriented (i.e., personal ethics related to individual piety and behavior; Miller & Ewest, 2013c). *Experience* emphasizes a quest for meaning and purpose at work, focusing on both the intrinsic and extrinsic dimensions of faith in the workplace. According to Miller and Ewest (2013c), the *experience* grouping has two orientations. It can be outcome-oriented (i.e., work is viewed as a means to an end) and/or process/activity-oriented (i.e., work is viewed as an end itself and therefore has

intrinsic value). *Enrichment* focuses on activities such as prayer, meditation, and self-actualization, and understands faith/spirituality as an opportunity to enhance one's work life through group and individual spiritual activities (Miller & Ewest, 2013c). Lastly, *expression* focuses on gospel proclamation, which comes in both verbal and non-verbal forms (Miller & Ewest, 2013c).

In the context of this study, Christianity, work, and economics integration involves affections, behaviors, and cognitions, which incorporate workplace religious commitments and practices such as ethics, experiences, enrichment, and evangelization/witness. Thus, integration is operative only to the degree to which an individual's beliefs, actions, relationships, and motivations are congruent and unified with one another (Pargament, 2002). More specifically, integration is expressed through attitudes, actions, and thoughts that match foundational tenets of the Christian faith, and which serve genuine stakeholder needs, thus manifesting an ethic of love and justice in the world (Vogelsang, 1983).

It is important to note that integration is never perfectly achieved, is worked out over a lifetime, and is applied based on the marketplace context and/or situation in which an employee finds himself/herself. The highest form of integration can be thought of as imaging Christ in and through work—characterized by greater coordination of perceptions, affections, cognitions, and volitional capabilities (Johnson, 2011). Knowing that our affections, behaviors, and thoughts are essential parts of what it means to live a life of Christian integration at work, vital empirical questions center on the nature of the relationships among the different TWSI dimensions.

TWSI Factor Structure

Law, Wong, and Mobley (1998) propose a taxonomy of multidimensionality based on the relations between the overarching construct and its dimensions. Without clear specification, of which many studies suffer, research can only be conducted at the dimension level and not at the construct level (Law et al., 1998). The three variations of multidimensionality include *latent* (often referred to as reflective or principal factor), *profile* (often referred to as unique combination), and *aggregate* (often denoted as formative) models. To understand which model is functioning, Law et al. propose a relational question that assesses whether a multidimensional construct exists at the same level as its underlying dimensions. If the construct does not exist at the same level as its facets, then the model is considered latent/reflective. If it does exist at the same level, then it is not considered latent/reflective, and a secondary question is posed: can the dimensions be algebraically combined to form an overall picture of the construct? If they can be algebraically combined, an aggregate/formative model is operative. If they cannot be aggregated, then a profile model is likely functioning.

Similar questions can be asked at the measurement model level. Specifically, what is the relationship of dimensions with respect to its indicators? If causality flows from the dimensions to the indicators, then the model is reflective (Jarvis, MacKenzie, & Podsakoff, 2003; MacKenzie, Podsakoff, & Podsakoff, 2011). In this case, indicators represent manifestations or reflections of the construct. Alternatively, if direction of causality flows from the indicators to the dimensions, then the measure is formative (Jarvis et al., 2003; MacKenzie et al, 2011). Under this scenario, indicators combine algebraically to form or give meaning to the factors.

Other criteria must also be considered to determine if models are reflective or formative. For example, if indicators and/or dimensions are correlated (i.e., removing an indicator or dimension from the measurement model does not change the construct's meaning), then a reflective model is more likely to be functioning (Hassan, Ramayah, Mohamed, & Maghsoudi, 2015; Jarvis et al., 2003). Conversely, according to Jarvis et al., if items and/or dimensions are uncorrelated, and therefore the removal of an indicator or dimension from the measurement model materially changes the construct's meaning, then a formative model is more likely to be operative. Consequently, internal consistency is critical for reflective models but immaterial for establishing formative models (MacKenzie, Podsakoff, & Jarvis, 2005). Nomological net considerations are also salient in determining whether a construct is formative or reflective. With formative models, it is not compulsory that indicators share similar antecedent and/or criterion variables; whereas, with reflective models, indicators have similar antecedent and criterion variables (Jarvis et al., 2003).

For both reflective models (e.g., g-factor; Spearman, 1927) and formative models (e.g., job characteristics; Hackman & Oldham, 1976), a multidimensional construct can be thought of as a unitary representation of all dimensions (Law et al., 1998; Law & Wong, 1999). In contrast, a profile model can only be understood as a combination of profiled characteristics (e.g., MBTI; Myers & McCaulley, 1985). Under the profile model, researchers need to artificially split each dimension into discrete levels. Following a profile approach, Benson, Donahue, and Erickson (1993) developed a fourfold faith-maturity typology based on the combination of horizontal (individual to individual) and vertical (individual to God) relationships. In their schema, "undeveloped

faith” reflects low vertical and low horizontal dimensions. “Verticals” represent high vertical and low horizontal dimensions. “Horizontals” reflect low vertical and high horizontal dimensions, and “integrated faith” represents high vertical and high horizontal dimensions. The TWSI does not operationalize integration in this manner.

Rather than unique combinations of facets, this study examines three possible reflective multidimensional patterns by which the TWSI may be best operationalized: (1) a reflective second-order model with six independent TWSI dimensions; (2) a reflective third-order model with four independent TWSI dimensions; and (3) a reflective second-order model with two independent dimensions—a personalized Theology of Work factor and a Theology of Business factor. The reflective third-order model with four independent dimensions is a direct outcome of the Yost and Terrill (2015) pilot study, which suggests that the Affective, Behavioral, and Cognitive (personal) scales load onto a single factor (TWSI Core Personal), with the remaining three scales independently loading onto the overarching TWSI construct. Finally, this study also tests a competing hypothesis that the TWSI exists as a reflective unitary construct with representation by all component indicators.

Although not the focus of this study, formative models are also considered theoretically and will be discussed in greater detail with respect to future research possibilities. In contrast to reflective models, an aggregate/formative structure is formed by the mathematical combination (either additive or multiplicative) of its various facets (Law et al., 1998; Law & Wong, 1999). That is, Christian faith, work, and economics integration is represented by the mathematical formulation of its affective/attitudinal, behavioral, and cognitive dimensions. Rather than the sub-dimensions reflecting

integration, it is the unique aggregation of factors that leads to integration under a formative model.

With respect to the reflective second- or third-order models in this study, the underlying multidimensional construct (i.e., faith, work, and economics integration) exists as the commonality across all dimensions. In effect, the TWSI construct exists as a higher-order abstraction behind the reflective dimensions of the construct (Law et al., 1998). Since shared variance among facets is critical for the reflective model (and facets serve as unique manifestations of the focal construct), the focal construct's sub-dimensions should be correlated—a requirement that is unnecessary for the profile and aggregate models (Law et al., 1998). To visualize a reflective model, one can imagine an overlapping area of a Venn diagram, which represents the higher-order dimension or true (common) variance of the latent multidimensional construct. Therefore, to be integrated, a person must reflect (or make manifest) a degree of *each* TWSI dimension. Although an individual might reflect a level of faith maturity at work with some unique combination or aggregation of the TWSI sub-dimensions, integration is most clearly reflected in a latent model when all dimensions are operative to some degree. Yost and Terrill (2015) found most inter-correlations among the possible TWSI sub-factors to be moderately correlated, which strengthens the likelihood that a reflective model is functioning. Moreover, indicators were strongly correlated within each factor at the first-order level, reflecting at least a first-order reflective model.

A theological argument in favor of a reflective structure rests on a self-supporting, mutually-reinforcing, and progressive understanding of Christian sanctification and formation (Phil. 1:6; Col. 3:9-10; Erickson, 1998; Oden, 2001). Considering the agentic

components of personhood, Christian faith, work, and economics integration can be conceptualized as an iterative process. A person might first grow cognitively with their affections and behaviors following their intellectual growth (e.g., “I believe God cares about my work, therefore, I am starting to feel differently about my coworkers and am acting with greater intention to help them.”). Alternatively, one’s behaviors might first be changed, leading to deeper cognitive and affective integration (i.e., “I am helping my coworker learn new software, and as a result, I am feeling more empathetic toward this colleague and increasingly perceiving my work as service to others.”). Lastly, changed affections might lead to new theological cognitions and faith-inspired behaviors (i.e., “I sense God’s presence at work, which has changed how I think about work and serve others.”). As a result, Christian faith, work, and economics integration might be characterized by greater awareness and practice across all (or some combination thereof) of the TWSI dimensions. However, it is not dependent upon the causal relationship of any one facet for integration to occur.

With respect to TWSI item generation, it is assumed in this study that Christian faith, work, and economics integration can be broadly experienced and expressed across a wide variety of work, cultural, and denominational contexts. At its core, the TWSI presumes that an integrated employee understands the workplace as a venue for God’s transforming love, and subsequently, exercises responsible agency and thought in living out Christian commitments at work. Following Niebuhr’s (1951) *Christ and Culture* framework, integrated Christians in the workplace think, feel, and act in predictable ways given the unique factors they face. For example, in response to deceit, integrated Christians find appropriate ways to seek truth and expose falsehood. Faithful Christians

also pursue excellence in all that they do no matter who is watching (or not watching) and in whatever job roles or situations they find themselves.

Following Miller (2003, 2007), Christian faith, work, and economics integration manifests itself in a shared set of common practices, most notably: (1) demonstration of Christian ethics; (2) lived experiences of meaning and purpose; (3) commitments to workplace prayer, self-actualization and enrichment; and (4) appropriate actions of witness and outreach. As a result, many of the TWSI items represent attitudes, behaviors, and cognitions in each of these four integration categorizations. Consequently, an integrated Christian at work is expected to act with integrity, serve others, pursue work with purpose, engage in prayer and other enrichment activities, and share one's faith in ways that honor human dignity and choice.

Whether working in business or in some other venue of marketplace activity (e.g., government, education, healthcare), the TWSI assumes that all marketplace Christians engage in economic-related activities, which includes interacting in some capacity with businesses of various sizes and configurations. Since business is the largest employer in the United States and the greatest producer of economic output (U.S. Census Bureau, 2015; U.S. Small Business Administration, 2016), the TWSI probes the relationship of Christian workers to business, as well as commerce's role in society more broadly. Several principles guide these relationships, which paint a portrait of how an integrated worker feels, acts, and thinks within the web of broader economic systems. At a base level, the integrated Christian understands that business has a higher ideal than profit-making—a purposes that is ultimately rooted in transformational service for societal flourishing (Pontifical Council for Justice and Peace, 2014; Van Duzer, 2010; Wong &

Rae, 2011). First popularized by economist Milton Friedman (1970), the chief aim of business in many marketplace and academic settings has historically been understood as maximizing return to shareholders. Unfortunately, such pressure for short-term financial results often diminishes the value of human beings as image-bearers of God, producing behavior that tear individuals and communities down rather than build them up (Naughton, Buckeye, Goodpaster, & Maines, 2015).

Without diminishing the necessity of profit-making for ongoing economic sustainability, an integrated worker elevates an ethic of service above short-term gains (Wong & Rae, 2011). More specifically, a Christian business leader acknowledges that a higher and stronger power exists than Adam Smith's "invisible hand" and the market's providential concern (Cavanaugh, 2008; Willard & Black, 2014). Consequently, s/he understands the purpose of business in a more holistic and ethical framework (e.g., creating products and services that meet real and important needs in the world; creating economic wealth for the benefit of society; creating employment opportunities that honor the unique skills and experiences of employees; Novak, 1996; Van Duzer, 2010).

Thus, this study proposes and tests Christian faith, work, and economics integration items as (1) a unitary, single-factor model; (2) a reflective second-order model with six independent dimensions; (3) a reflective third-order model with four independent dimensions; and (4) a reflective second-order model with two independent dimensions split among a personalized Theology of Work factor and a broader Theology of Business factor. All structural models are depicted in Appendix A, and the dimensionality hypotheses are stated as follows.

H1a	TWSI is best represented as a single-factor reflective model with all items loading onto a single Christian faith, work, and economics focal construct.
H1b	TWSI is best represented as a second-order reflective model that encompasses six independent sub-dimensions: Affective; Behavioral; Cognitive (personal); Faith through work; Faith vs. Work; and Societal Responsibility.
H1c	TWSI represents a third-order reflective multidimensional construct. The Affective, Behavioral, and Cognitive (personal) factors load onto a TWSI Core Personal dimension, which then loads onto the overall TWSI focal construct. The Faith through Work, Faith vs. Work, and Societal Responsibility factors are independent and load onto the overall TWSI focal construct.
H1d	TWSI represents a second-order reflective model that encompasses two independent sub-dimensions. Rather than factors categorized as above, the dimensions are understood in either personal or broader societal terms. More specifically, the construct is best conceptualized as two independent dimensions that represent a personalized concept of Faith at Work, as well as a broader Theology of Business.

TWSI Convergent/Discriminant Validity

With respect to convergent validity, it is hypothesized that the TWSI will show moderate correlations to the FWS (Lynn et al., 2009). In addition, since Christian faith, work, and economics integration is conceptualized as a multidimensional construct, it is hypothesized that some of the TWSI facets will more closely correlate to the FWS than other TWSI facets. The study expects stronger correlations with the FWS from the Affective, Behavioral, Cognitive (personal), and Faith through Work facets. As

previously stated, the FWS assesses attitudinal/affective and behavioral components of faith and work, but does not assess broader theological facets related to societal and ethical concerns. Lynn et al. (2009) focus on faith and work integration from personal piety, relational, and community perspectives; however, matters of work as they relate to societal responsibility are not as fully represented. Therefore, it is anticipated that a weaker relationship will exist between the TWSI Societal Responsibility factor and FWS. Moreover, the TWSI Faith vs. Work dimension captures a bifurcated or theologically fractionalized view of faith, work, and economics integration, where faith and work are inherently disjointed rather than united activities. Therefore, we expect little or no relationship—possibly even a negative relationship—between the TWSI Faith vs. Work factor and FWS.

H2a	TWSI will be moderately positively correlated with the Faith at Work Scale, demonstrating convergent validity.
H2b	TWSI's Affective, Behavioral, Cognitive (personal), and Faith through Work dimensions will be moderately positively correlated with the Faith at Work Scale, demonstrating convergent validity.
H2c	TWSI's Faith vs. Work and Societal Responsibility dimensions will be less correlated with the Faith at Work Scale than the other four TWSI sub-dimensions, demonstrating discriminant validity.

TWSI and Criterion Validity

Assessing criterion validity is an important process in validating the TWSI measure. When considering the construct of Christian faith, work, and economics

integration, one might expect directionality in specific criterion relationships. From a wide range of possible criterion variables to study, five have been chosen: ethical behavior, task performance, contextual performance, turnover intentions, and faith maturity. Two of these variables—turnover intentions and job performance—have been tested empirically in other faith-work integration research and have yielded surprising results (Walker, 2013). A purpose of this study is to help clarify these specific relationships, while probing the larger question: Does Christian faith, work, and economics integration result in positive individual and organizational outcomes?

In contrast to task/contextual performance and turnover intentions, ethical behavior has not been studied as a criterion for faith-work integration measures. However, the hypothesized relationship is vital, as one would expect Christian integration at work to translate into how one acts on the job. Niebuhr's (1951) *Christ Transforming Culture* typology presumes that restorative work in the marketplace rights wrongs and seeks integrity, as does Miller's (2007) understanding that integration manifests itself in ethical workplace behavior. Since the TWSI taps attitudes, actions, and cognitions related to ethics and morality at multiple work-related levels, one would expect the measure to predict ethical behavior at work.

In contrast, the predictive validity of the TWSI for turnover intentions is less certain. For the integrated Christian, one might expect lower turnover intentions if organizational practices and values are consistent with personal values. However, if an employee is in an organization that s/he believes is not a good match to personal values (i.e., is unethical or is not delivering a product or service that is adding value to society), a heightened level of Christian faith, work, and economics integration could lead to

greater levels of dissonance, and therefore turnover intentions. For these reasons, fit of organizational values relative to personal values is examined as a moderator in this study.

In addition, criterion validity of the TWSI for positive task and contextual performance is hypothesized as significant. As employees gain a deeper level of faith-work coherence, they may gain a clearer picture of the value of their work responsibilities for the benefit of others (and the common good, more broadly), which may result in better individual performance. This hypothesized relationship is consistent with Miller (2007), who found that faith-work integration manifests itself in experiences of meaning, purpose, and vocation. However, based on prior research, most notably Walker (2013), a positive link between faith-work integration and in-role job performance has not been established.

Lastly, the predictive relationship of the TWSI for faith maturity is also considered. Given the complexity of predictive validity considerations as noted above, the paragraphs that follow describe outcome variables in greater detail alongside corresponding hypotheses for each of the independent and dependent variable relationships.

Ethical behavior. Based on social learning theory (Bandura, 1986), which posits that people influence others through modeling, ethical leadership can be defined as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making” (Brown, Treviño, & Harrison, 2005, p. 120). Brown et al. define ethical leadership in the context of “followers.” However, in the rapidly changing world of work, “colleagues” may be more

characteristic of the broad array of communities that employees serve. Thus, the term “followers” is replaced with “colleagues” in this study, which enlarges the spectrum of work roles in which ethical leadership can be described and measured.

Symbolic interactionism underpins the relationship between religiosity and ethical behavior. This theory suggests that religious role expectations, when internalized, shape religious self-identity, which in turn create the prospect of ethical behavior (Weaver & Agle, 2002). However, in the context of the religiosity and ethical behavior relationship, an individual’s actual behavior is moderated by the importance one ascribes to identity, as well as the personal motivations assigned to religiosity (Weaver & Agle, 2002). People who understand religion as central to their identity and who engage actively in religious activities and social justice initiatives have a more integrated and/or holistic conception of life and work—a mental framework by which faith is linked to everything one does (Davidson & Caddell, 1994).

Thus, an understanding of work life as spiritually meaningful activity (i.e., salient behavior) should result in increased attentiveness to ethics. If work is viewed as a sacred endeavor and becomes ingrained as a key part of one’s identity, then other dimensions of religious identity, such as a commitment to act justly and ethically at work, should become aroused and exercised at work (Weaver & Agle, 2002). Consequently, it is hypothesized in this study that Christian faith, work, and economics integration will result in greater levels of ethical behavior above and beyond the control variables and the FWS (Lynn et al., 2009). Drawing on a symbolic interactionist model, as proposed by Weaver and Agle (2002), one would expect religious commitment to positively influence ethical actions when a specific religious identity is adopted, the religious identity requires

ethical behavior in the workplace (e.g., Christian faith, work, and economics integration), and the religious identity is salient to the person in his/her work context. Stated another way, Christianity will influence actual conduct in the workplace when role expectancies, identity salience, and personal/religious identity are aligned.

H3a	TWSI will predict Ethical Behavior above and beyond the control variables.
H3b	TWSI will predict Ethical Behavior above and beyond the control variables and the FWS, reflecting discriminant predictive validity beyond how faith/work is typically operationalized (e.g., the FWS).

Task and contextual performance. Task activities are the day-to-day duties and assignments that appear in job descriptions, are often the focus of selection systems, and serve as the benchmark by which employees are evaluated and rewarded (Borman & Motowidlo, 1997). Task performance is defined as “the effectiveness with which job incumbents perform activities that contribute to the organization’s technical core either directly by implementing a part of its technological process, or indirectly by providing it with needed materials or services” (Borman & Motowidlo, 1997, p. 99). By contrast, contextual activities “contribute to organizational effectiveness in ways that shape the organizational, social, and psychological context that serves as the catalyst for task activities and processes” (Borman & Motowidlo, 1997, p. 100). Contextual behaviors tend to transcend a job’s requirements and may elude performance evaluation (Borman & Motowidlo, 1997). Examples of extra-role contextual performance include cooperation, persistence, volunteering for assignments outside of one’s own job description, and supporting/defending organizational objectives.

It is hypothesized in this study that employees who exhibit Christian faith, work, and economics integration will be more involved in their work, which will lead to higher levels of task and contextual performance. Previous research has shown that individuals with higher levels of religiosity may channel greater attention and energy to activities external to their work, thus jeopardizing their work performance (Horvath, 2015). More specifically, greater religiosity seems to be correlated with a higher evaluation of goals external to work (e.g., prayer, attendance at worship services) to fulfill religious ideals. Thus, religious employees may focus less attention and energy on work-related goals (e.g., career advancement), because material benefits are viewed as less consistent with spiritual values (Horvath, 2015).

However, in response to these findings, Horvath (2015) found that a sense of calling, particularly a sense of transcendent summons, influences the religiosity and work outcome relationship by redirecting greater effort toward on-the-job responsibilities rather than religious activities. More specifically, Horvath found that religiosity and calling interact to predict both job involvement and number of hours worked. Individuals who believe their work is connected to a transcendent call are more likely to allocate limited internal resources toward the work itself, thus scoring higher on job involvement and expending more hours at work. From a self-regulation perspective, a sense of transcendent calling could either elevate the salience of work goals or prompt an individual to reinterpret work goals as instrumental for accomplishing important spiritual goals (Horvath, 2015). Consequently, a transcendent summons can sacramentalize an individual's work by assigning greater spiritual value to the end goals of the work itself, or by assigning greater value to the means or process goals in carrying out the work.

Walker (2013) found that a positive relationship between the FWS (Lynn et al., 2009) and self-reported in-role job performance was unsupported. Surprisingly, the findings indicated that the relationship was significant in the opposite direction. Walker inferred that individuals who integrate faith and work may assign greater value to contextual dimensions of personal job performance over facets of individual task performance. Accordingly, he concluded that the significant negative relationship between faith-work integration and in-role job performance may result from an over-reliance on in-role task performance as the criterion.

In response to Walker's (2013) findings, this study broadens performance to include both task and contextual dimensions, and hypothesizes that a positive predictive relationship exists between the TWSI and task and contextual performance. Religiosity and a sense of work as a sacred summons—both of which are reinforced through a commitment to Christian faith, work, and economics integration—will prompt greater levels of work performance when criterion variables are broadened to include both task and contextual job performance. More specifically, this study hypothesizes that the TWSI Behavior sub-facet will predict greater levels of self-reported task and contextual performance, as will the overall TWSI.

H4a	TWSI will predict self-reported task and contextual job performance above and beyond the control variables.
H4b	The TWSI Behavior sub-facet will significantly predict self-reported task and contextual job performance above and beyond the control variables.

Turnover intentions. Turnover intention is not defined universally in research studies. Nevertheless, it is important to have as precise a definition as possible. Consistent with Fishbein and Ajzen's (1975, 1977) Theory of Planned Behavior, turnover intentions reflect the degree to which an employee *plans* to leave his/her organization (Bothma & Roodt, 2013). For purposes of this study, turnover intention is defined as "the conscious and deliberate willfulness to leave the organization" (Tett & Meyer, 1993, p. 262). Turnover intentions assess whether an employee plans to leave his/her position, usually within a designated timeframe, such as six months.

The focus of turnover research has been on both antecedents and organizational outcomes (Campion, 1991). Stress-related factors have been linked to both higher turnover intentions and actual turnover (Podsakoff, LePine, & LePine, 2007). Moreover, a meta-analysis by Humphrey, Nahrgang, and Morgeson (2007) showed that traditional motivating work characteristics (e.g., skill variety, feedback, autonomy) do not appear to be significantly correlated with turnover intentions, but social characteristics (e.g., feedback from others, social support, interdependence) do appear to be significantly negatively related. Studies also demonstrate that job satisfaction seems to predict lower turnover intentions (Tett & Meyer, 1993).

Based on these findings, it is anticipated that higher levels of Christian faith, work, and economics integration will help moderate work-related stress. Moreover, assuming one believes their organization's values are consistent with their personal values, it is hypothesized that higher levels of Christian faith, work, and economics integration will result in deeper appreciation of both the intrinsic and extrinsic meaningfulness of one's work, which will lead to increased job satisfaction and lower

turnover intentions. In addition, as Horvath (2015) showed, religiosity and a sense of calling interact to predict job involvement. As job involvement increases, so too, may the quality of social relationships at work, leading to a greater sense of interdependence, personal availability for feedback, and social support from others, which will in turn predict lower turnover intentions.

H5a	TWSI will predict lower intentions to leave a job above and beyond the control variables.
H5b	After controlling for age and active years as a Christian (i.e., control variables), the degree to which one believes their organization's values are consistent with their personal values will moderate the relationship between TWSI and turnover intentions, such that those who experience greater consistency between their organization and their personal values will experience lower intentions to leave their organization.

Faith maturity. The Faith Maturity Scale (FMS; Benson et al., 1993; Piedmont & Nelson, 2001) assesses the degree to which a person's life is animated by a gratifying faith orientation. More specifically, faith maturity is described as "the degree to which a person embodies the priorities, commitments, and perspectives characteristic of vibrant and life-transforming faith, as these ideals have been understood in 'mainline' Protestant traditions" (Benson et al., 1993, p. 3). Benson et al. (1993) have operationalized the construct through two sub-scales: (1) a vertical dimension, which captures the degree to which a person emphasizes the relational connection between oneself and God; and (2) a horizontal dimension, which focuses on the degree to which a person emphasizes service

to others through prosocial values and behaviors. The FMS was first developed with mainline Protestants, but has subsequently been validated with a more diverse representation of faith communities (e.g., Baptists, Catholics).

The Faith and Work Scale (FWS; Lynn et al., 2009) correlates highly ($r = .81$) with the Faith Maturity Scale (FMS; Benson et al., 1993). The high correlation indicates that the two measures may be tapping the same construct. On the other hand, correlations suggest that there is still some variance not shared ($R^2 = .66$, indicating 34% of the variance is unshared); thus, the TWSI may be able to predict some of the additional construct space that is not predicted by the FWS. Therefore, the TWSI should predict faith maturity above and beyond the control variables; and, since the FWS and FMS are highly correlated, the TWSI may predict faith maturity above and beyond the control variables and FWS.

H6a	TWSI will predict faith maturity above and beyond the control variables.
H6b	TWSI will predict faith maturity above and beyond the control variables and the Faith at Work Scale.

CHAPTER II

Method

Participants

The TWSI is intended for use by organizations (e.g. churches, seminaries, faith-based colleges and universities, Christian-led private organizations) to help develop impactful programming and training initiatives that assist members, students, and employees to better integrate Christian faith, work, and economic commitments. Since this measure is specifically addressed to Christians in the workplace, respondents were prompted to only take the measure if they identified as Christians (e.g., Catholics, Protestants, Eastern Orthodox). Furthermore, all respondents were required to work at least 30 hours per week to ensure they were properly embedded within a variety of stakeholder and economic relationships, which is an important underlying component of the TWSI construct. In addition, to seek to ensure a representative sampling of ethnic minority participants and adequate participation across Christian traditions and denominations, a purposive snowball convenience sampling strategy was pursued. Lastly, no financial incentive was extended for participation and proper ethical and review board procedures were followed for all data collection activity.

Sample Size

There are different conventions with respect to adequate sample size and power, including a commonly held rule-of-thumb that there should be at least five to ten participants per variable with a minimum sample size of 200 participants when conducting SEM analyses (Floyd & Widaman, 1995; Gorsuch, 1983). Another commonly held convention calls for ten participants per estimated parameter (Schreiber,

Nora, Stage, Barlow, & King, 2006). Typically, a large sample size is needed to achieve necessary power when degrees of freedom are small; the more degrees of freedom the more parsimonious the model (MacCallum, Browne, & Sugawara, 1996; Weston & Gore, 2006). In general, research suggests that sample size standards depend on three factors: desired power, the null hypothesis being tested, and model complexity (MacCallum et al., 1996). Each of these factors was considered in the context of this study, but in the end Weston and Gore's (2006) convention received primacy, which recommends a minimum sample size of 200 participants for structural equation modeling assuming no significant problems with data (e.g., missingness, non-normality).

For power calculations, the software package G*Power 3.1 was utilized in this study (Faul, Erdfelder, Lang, & Buchner, 2007). Based on the total number of continuous predictors for hierarchical regressions, a minimum sample size of 193 participants was deemed necessary to detect a moderate effect size ($R^2 = .09$) with power of .90 and significance levels of $\alpha = .05$. The literature for continuous moderated regression analyses also suggests that a required sample size fall between 120 to 182 participants to detect a medium to small effect size (Shieh, 2009; Stone-Romero & Anderson, 1994). To meet these thresholds, a minimum sample size of 200 participants was regarded as necessary for all regression analyses. The final dataset contained 405 valid participants.

Finally, as part of the sampling procedures, two attention-check items were included in the measure (e.g., "If you are paying attention to this survey, respond with 'agree'"). In addition, on the Qualtrics survey platform, participants were required to read about the purpose of the study and requirements for participating. Once participants

issued their consent and confirmed that they met all requirements, they were invited to complete the measure. Only respondents who responded correctly to both attention check items were included in the study.

Measures

Faith at work scale (FWS). The FWS (Lynn et al., 2009) is a 15-item measure of workplace religion shaped by Christianity and Judaism. The measure was developed by a stratified random sample of professionals and managers and exhibits a single-factor structure with items probing five thematic categories: relationships, meaning, community, holiness, and giving. A five-point Likert-type response format was utilized with 1 = never or infrequently, and 5 = always or frequently. Example items include, “I view my work as a mission from God,” and “I sacrificially love the people I work with.” The coefficient alpha is .77, and the FWS exhibits convergent validity with the Faith Maturity Scale, ($r = .81, p > 0.0001$), which was first developed by Benson et al. (1993), and is discussed below. The single-factor scale in the Lynn et al. (2009) study accounted for 59% of overall variance. See Appendix B for the full scale.

Transformative work in society index (TWSI). The TWSI was originally developed for the Kern Family Foundation (Yost & Terrill, 2015; see Appendix C). Content validity was a high priority, as items were developed deductively through a review of the existing literature and by assembling a team of seasoned Subject Matter Experts (SMEs) across the fields of theology, management, business, and industrial/organizational psychology. Catholic emphases (e.g., subsidiarity; solidarity; Catholic Social Thought) and Eastern Orthodox accents on work, faith, and economics integration were considered, as were five distinct Protestant foci: (1) calling in daily life,

(2) stewardship and/or co-regency with God, (3) economic justice and ethics, (4) professional modesty, and (5) witness/expression (Miller & Ewest, 2013c).

Items were also developed inductively through theoretical considerations that explored the affective, behavioral, and cognitive dimensions of Christian faith-work integration. Items reflecting non-integration were also included, and with respect to the TWSI, have been articulated as cognitions understood as separate from, in opposition to, and/or indicative of a sub-biblical or erroneous theological view of Christian faith, work, and economics integration.

Although the TWSI is focused on the individual as the primary unit of analysis, and therefore assesses individual attitudes, cognitions, and actions independent of the organization, the TWSI *does* measure the extent to which individual attitudes, cognitions, and actions are aligned with broader economic and business systems. The TWSI recognizes the value of material wealth creation, but understands the etymology of the term *wealth* in its broader social, spiritual, relational, and moral dimensions (Pontifical Council for Justice and Peace, 2014).

In support of a larger vision for economic activity, the TWSI captures a wider perspective for the role and purpose of business for societal wellbeing. Business and other workplace communities are moral institutions, and the employees who make up these organizations either *do* or *do not* maintain ethical commitments to various stakeholder groups (Novak, 1996). Hence, the purpose of commercial activity is not limited to personal financial provision and work-related meaningfulness, but transformative service, which involves the creation of goods and services that meet real material needs in the world and contribute to human flourishing (Pontifical Council for

Justice and Peace, 2014; Van Duzer, 2010; Van Duzer et al., 2007; Willard & Black, 2014; Wong & Rae, 2011). The TWSI's assumptions of economic flourishing are shared by scholars and business leaders from a range of Christian traditions, who have developed a common theological understanding that emphasizes the moral responsibility of business and legitimizes the value of economic activity (Van Duzer, 2010; Wong et al., 2015).

The TWSI was originally established through an Exploratory Factor Analysis (EFA), which resulted in items loading onto six dimensions with the following characteristics, as follows (Yost and Terrill, 2015):

1. Affective/Attitudinal: 15 items with a Cronbach's Alpha of .86. This scale reflects personal feelings and attitudes related to the focal construct of Christianity, work, and economics integration. An example item includes the following: "I experience joy in my work."
2. Behavioral: 14 items with a Cronbach's Alpha of .91. This scale reflects on-the-job actions resulting from an integrated understanding of Christianity, work, and economics. An example item includes the following: "I apply my faith to problems at work."
3. Cognitive (personal): 5 items with a Cronbach's Alpha of .90. This scale reflects a person's foundational and rational understanding of the focal construct of Christian faith, work, and economics integration. An example item includes the following: "God brings me creative ideas while I work."
4. Faith through Work: 3 items with a Cronbach's Alpha of .73. This scale reflects an instrumental view of work to express and execute God's purposes

in and for the world. The facet also reflects God’s agency to act through work systems and business relations. Many of the other items/facets in the TWSI reflect the intrinsic value and dignity of work within nested economic relationships. By contrast, this scale emphasizes the instrumental role of business and economics to meet God’s creational and redemptive purposes. An example item includes the following: “Business is one of the professions God uses to make the world a better place.”

5. Faith versus Work: 6 items with a Cronbach’s Alpha of .86. This scale reflects general cognitions erroneous to, sub-biblical of, and/or contradictory to an integrated view of Christian faith, work, and economics. In contrast to the Cognitive (personal) dimension, which focuses on the worker as the first-person subject or direct object of the cognitive-related action, this dimension captures more generalized theological views that detract from an individual’s integrated understanding of Christianity, work, and economics. An example item includes the following: “Career paths in business are less virtuous than career paths in other fields.”
6. Societal Responsibility: 4 items with a Cronbach’s Alpha of .53. This scale reflects a personal understanding of work that incorporates work’s ethical and societal responsibilities as an expression of Christian integration. An example item includes the following: “The way jobs are designed is a moral issue.”

As part of this study, several items were added to the existing pilot study scales (Yost & Terrill, 2015). For example, one item was added to the behavioral scale, so that the total number of items totaled 15. Additional items were added to scales so the total

number of items in the Cognitive (personal) and Faith through Work facets equaled six, and the total number of items in Faith vs. Work and Societal Responsibility equaled eight, for a total of 58 items across all six dimensions. The purpose of adding items to the Faith through Work and Societal Responsibility facets was to strengthen internal reliability and add balance across these dimensions. Moreover, a few of the items that were added addressed themes of gratitude, forgiveness, and personal agency, which are ideas imbedded in the Christian tradition, as well as in other religious backgrounds (Emmons & Paloutzian, 2003). At a subsequent stage, as described later, a Cronbach's Alpha analysis was conducted to eliminate seven items that were not contributing to internal reliability. Fifty-one items were represented in the final TWSI.

Self-reported ethical behavior. Brown et al. (2005) address ethical leadership from a social learning theory perspective, suggesting that followers model leaders through observation and imitation. As a result, they developed a 10-item ethical leadership scale (ELS). For purposes of this study, the five items with the highest factor loadings in their validation study were selected as a criterion measure for the TWSI. To broaden applicability for a wider range of stakeholders, the word "employees" was replaced with the word "colleagues." In addition, since ethical behavior is self-reported in the context of this study, each item was modified for a first-person application. After these slight modifications, the items included the following: (1) "I have the best interest of colleagues in mind," (2) "I make fair and balanced decisions," (3) "I can be trusted," (4) "I set an example of how to do things the right way," and (5) "When making decisions, I ask 'what is the right thing to do?'" A 5-point Likert-type response format was utilized in the Brown et al. study, with 1 = strongly disagree, and 5 = strongly agree.

In the Brown et al. research, an EFA and CFA were conducted with resulting coefficient alphas of .92 and .91, respectively. See Appendix D for the full scale.

Self-reported task and contextual performance. Both task and contextual performance are assessed in this study. Task performance represents the day-to-day duties and assignments that appear on job descriptions, and which are often the focus of selection systems (Borman & Motowidlo, 1997). By contrast, contextual performance transcends a defined job role and includes extra-role behaviors such as volunteerism and cooperation (Borman & Motowidlo, 1997). See Appendix E for the full scale.

Self-reported in-role task performance was assessed using a five-item scale, which was initially developed by Podsakoff and Mackenzie (1989), and later utilized/refined by Janssen and Van Yperen (2004). The items employ a five-point Likert-type scale, where 1 = strongly disagree, and 5 = strongly agree. The five items measure both the quality and quantity of in-role task performance, and include the following: (1) "I always complete the duties specified in my job description," (2) "I meet all the formal performance requirements of my job," (3) "I fulfill all responsibilities required by my job," (4) "I never neglect aspects of the job that I am obligated to perform," and (5) "I often fail to perform essential duties." Janssen and Van Yperen report a coefficient alpha of 0.85. Walker (2013) reports internal reliability of .77.

Self-reported contextual performance was assessed with three items, which were selected from 16 items originally developed by Motowidlo and Van Scotter (1994). Items that were selected incorporate core dimensions of contextual performance and have broad versatility in work contexts (i.e., they do not rely exclusively on military applications, are not dependent upon teammates and/or supervisors, and are not reliant

upon written instructions for carrying out one's work). Moreover, contextual performance items that were selected are consistent with organizational commitment behavior (OCB) literature, which defines OCBs as discretionary behaviors that extend beyond core job requirements, are not formally recognized by the reward system, and include dimensions related to altruism, conscientiousness, sportsmanship, courtesy, and civic virtue (Organ, 1988, 1997; Podsakoff, Whiting, Podsakoff, & Blume, 2009). More recent definitions of OCBs have moved closer to definitions of contextual performance; however, there has been reluctance to fuse the two constructs even though many OCBs closely resemble contextual performance behaviors (Motowidlo & Kell, 2013).

The contextual performance items selected for this study were not originally written for self-reporting purposes but for supervisor assessment. Thus, minor changes were made to instructions and to items to adjust for a self-report format. The items utilize a five-point Likert-type scale, where 1 = extremely unlikely, and 5 = extremely likely. The three items selected include the following: (1) "While performing my job, I look for challenging assignments," (2) "While performing my job, I tackle difficult work assignments enthusiastically," and (3) "While performing my job, I voluntarily do more than the job requires." The 16 items in the Motowidlo and Van Scotter's (1994) study had a coefficient alpha of .95.

Turnover intentions. Turnover intention assesses an employee's plans to leave his/her position. The three-item intention to leave scale was based on a measure first developed by Mobley, Horner, and Hollingsworth (1978). The measure was administered on a five-point Likert-type scale, where 1 = strongly disagree, and 5 = strongly agree. The three items include: (1) "the thought of quitting my job often crosses

my mind,” (2) “I often consider finding a new job,” and (3) “I often actively look for a new job.” In the Walker (2013) study, the coefficient alpha of intent to leave was .88.

See Appendix F-1 for the list of items used.

As part of the TWSI and turnover intentions hypothesized relationship, three items assessing fit between organizational and personal values have been included in this study to test the moderating role of organizational/personal values alignment on turnover intentions. The three items utilized in this study come from a validated four-item person/organization fit scale developed by Saks and Ashforth (1997). These items were administered on a five-point Likert-type scale, where 1 = to a very little extent, and 5 = to a very great extent. The items have been modified slightly to strengthen personalization by inserting the word “your” rather than the original word “the” before “organization.” Slightly modified items include: (1) “To what extent are the values of your organization similar to your own values?” (2) “To what extent does your personality match the personality or image of your organization?” (3) “To what extent is your organization a good match for you?” The coefficient alpha for the person/organization fit scale in the Saks and Ashforth study was .92. See Appendix F-2 for the full list of items used.

Faith maturity scale (FMS). The FMS (Benson et al., 1993) assesses the degree to which an individual’s life is invigorated by a fulfilling faith orientation (Piedmont & Nelson, 2001). The scale was first developed by Benson et al. (1993), and consisted of 38 items (seven-point Likert-style scale). The version utilized in this study is a 12-item short-form scale documented by Benson et al., who report a coefficient alpha of .88. The measure has two subscales: (1) a horizontal dimension (i.e., degree to which an individual’s faith prompts a commitment to serve and help others); and (2) a vertical

dimension (i.e., degree to which an individual feels close and connected to God).

Respondent scores were recorded on a seven-point Likert-type scale, where 1 = never true, and 7 = always true. An item representing the horizontal dimension is, “I apply my faith to political and social issues.” An item representing the vertical dimension is, “I feel God’s presence in my relationships with other people.” See Appendix G for the full list of items encompassing the Faith Maturity Scale.

Demographic variables and covariates. The Lynn et al. (2011) study showed that work-faith integration is positively correlated with age, church attendance, strictness of denomination, and faith maturity. The current research study examines some of these demographic variables for external validity purposes. In addition, Yost and Terrill (2015) showed that Christian faith, work, and economics integration is positively related to the percentage of Christian friends one has, source of faith influence (e.g., self, friends, parents, pastors, the Bible, authors), frequency of church attendance, number of years as an active Christian, and type of employer. In the current study, some of these variables serve as demographic variables for external validity purposes, and age and years as an active Christian serve as covariates to soak up variance in the criterion variables to better determine the effect of the predictors of interest.

Auxiliary variables. Specific variables can be collected to help manage potential missing data by reducing estimation bias and restoring lost power (Collins, Schafer, & Kam, 2001). A covariate that may be correlated with missingness is number of years as an active Christian. A less mature Christian (i.e., one who is “less formed” in the faith) may be overwhelmed by faith, work, and economics integration, and therefore, not respond to all items on the scale. By controlling with this auxiliary variable, as well as

age, data may be transitioned from missing at random (MAR) to missing completely at random (MCAR).

Research Design

This study represents a correlational research design, which, after testing the construct's dimensionality via confirmatory factor analysis, seeks to validate Christian faith, work, and economics integration (i.e., the TWSI) within its broader nomological net. The nomological net explores the network of relationships among related measures in social science research and the focal construct as captured by the TWSI. The nomological net assumes that theory matches the actual interrelationships of specified variables and is validated through accumulating evidence that shows theoretical linkages between the construct of interest and its antecedents, correlates (convergent), and criterion (Campbell & Fiske, 1959; Cronbach & Meehl, 1955; Stone-Romero & Rosopa, 2004). The nomological net also considers discriminant validity, where measures that should not be theoretically related to the operationalized construct of interest are shown to be uncorrelated (Campbell & Fiske, 1959).

CHAPTER III

Results

Data analysis followed several discreet steps. The first step was to clean the data and test for various parametric statistical analyses assumptions (e.g., normality, missingness, linearity, homogeneity of variance). An important part of the data preparation process involves missing data analysis, which received significant attention in this study, particularly how best to deal with both user missing values (i.e., item responses that were omitted) and system missing values (e.g., “Not Applicable” responses). As part of the data preparation work, dealing with outliers was also considered (Field, 2005; Orr, Sackett, & Dubois, 1991). Both procedures are discussed in more depth below.

The second step in the data analysis process involved scale evaluation and final scale construction. The Transformative Work in Society Index (TWSI) was initially developed through a pilot test study (Yost & Terrill, 2015) in which six independent but correlated sub-facets were identified. As part of the current study, additional items were added to several sub-scales to build more balanced scales and to improve sub-scale internal reliability. Also, through internal reliability analysis, weaker items were eliminated to strengthen internal consistency.

The third step in the data analysis process involved model testing, whereby Structural Equation Modeling (SEM) and Confirmatory Factor Analysis (CFA) were utilized to determine the underlying structure, dimensionality, and fit of the TWSI (MacCallum & Austin, 2000; Schreiber et al., 2006; Weston & Gore, 2006). Model testing was important for nomological validation by providing the best measure for the

construct for convergent/discriminant and predictive validity tests. Moreover, based on a subsequent Exploratory Factor Analysis (EFA), items that did not cleanly load on distinct factors were removed from the best-fitting model to determine if a more parsimonious structure could be proposed as the final model representation.

The final step in the data analysis process involved assessing convergent, discriminant, and criterion-related validity within the broader nomological net of hypothesized relationships. With respect to convergent/discriminant validity, facets of the TWSI were examined in relation to the Faith at Work Scale (FWS; Lynn et al., 2009) via correlational analysis. Criterion-related validity was established by examining the TWSI in predictive relationship with other measures such as ethical behavior, self-reported task/contextual performance, turnover intentions, and faith maturity. In the case of turnover intentions, a moderator of organizational/person values fit was also tested.

Data Preparation

Surveys were completed by 413 participants, who came from a snowball sampling approach. To begin, data was examined and statistical assumptions tested. To preserve power and generate a complete and unbiased dataset, missing data for the CFAs was managed using multiple imputation (Enders, 2010; Graham, 2009) in which five imputed datasets were generated (Schafer, 1997). Multiple imputation has been shown to be superior for datasets of up to 24% missing data, which far exceeds the percentage of missing data in this study (Olinsky, Chen, & Harlow, 2003). For all convergent, discriminant, and predictive analyses in this study, missing data was managed via mean substitution, of which both item- and person-mean substitution in Likert-scale studies have been shown to be effective when missing thresholds are less than 20%, which is the

case in this analysis (Downey & King, 1998). In the current study, missing data resulted from both item nonresponse and participant attrition, and any cases that exceeded the 24% threshold were removed from the final dataset. In addition, all participants who responded incorrectly to either of the two attention check items were deleted from the dataset, as were participants who did not meet the conditions of the study or offer their consent to participate. This left a total sample size of $N = 405$. After implementing these procedures, 58% of all cases represented complete data sets, and missing data for variables ranged from 0 to 10.4 %, with only two items exceeding a 5% missing data benchmark.

Multiple imputation and mean substitution. Prior to any missing value techniques, the dataset was examined for patterns of missingness (Enders, 2010; Graham, 2009; Schlomer, Bauman, & Card, 2010). Little's (1988) omnibus MCAR test was utilized to assess whether data was missing completely at random (MCAR), such that any missing values in the dataset were unrelated to other variables involved in the study (Enders, 2010). Rubin (1976) first described three patterns of missing data: missing completely at random (MCAR; i.e., no patterns of missingness observed); missing at random (MAR; i.e., missingness not dependent upon unobserved data but dependent upon observed data); and missing not at random (MNAR; i.e., missingness dependent upon unobserved data). In this study, missing data has been recognized as MAR, for which auxiliary variables have been included to attenuate any missingness patterns.

In the current study, data failed Little's (1988) test ($\chi^2 [12,929] = 13,491.10, p = .000$), indicating that there may be an underlying bias in missing data due to observed or unobserved values in the dataset. However, as scholars have observed, data collected in

psychological research does not often follow normal distribution patterns, leading to Type I errors in the chi-square statistic, and subsequently to model rejection (Curran, West, & Finch, 1996). Since patterns of missingness cannot be ruled out, conservative data estimation techniques were employed. Multiple imputation was pursued for the CFAs as an effective strategy for preserving power and managing data that is not MCAR, but rather MAR (Enders, 2010; Graham, 2009; Rubin, 1987). For all convergent/discriminant and predictive analyses, mean substitution was utilized, which is an effective strategy for dealing with missing Likert data at low missing thresholds, which is the case in this study (Downey & King, 1998).

Normality, skewness, and kurtosis. Visual inspection of histograms, p-p and q-q plots, and review of Kolmogorov-Smirnov (K-S) and Shapiro-Wilk (S-W) tests were utilized to test normality assumptions (Field, 2005). Both the K-S and S-W tests provide a statistical examination of whether a score distribution varies significantly from a normal distribution (Field, 2005). The K-S and S-W tests in the context of this study indicated that each variable (excluding number of years as an active Christian) had a distribution that was significantly different than normal, suggesting that the normality assumption was violated. Standardized measures of skewness and kurtosis were also examined, supporting the conclusion that the assumption of normality was largely violated for items and scales utilized in this study. When skewness and kurtosis z -scores exceed an absolute value of 1.96, 2.58, and 3.29 at the .05, .01, and .001 thresholds, respectively, the distribution is considered significantly different than normal (Field, 2005). Results for the skewness tests can be found in Table 1.

Most of the standardized skewness and kurtosis scores were substantiated by the K-S and histogram results, which, according to Field (2005), is not unusual for sample sizes approaching and exceeding $N = 200$. However, examination of P-P scatter plots largely indicated residual normality. Notwithstanding, the prevailing evidence for normality indicates a violation of this assumption, which can lead to Type I and Type II errors by skewing results such that erroneous conclusions are reached that a significant effect exists when it does not, or a significant effect does not exist when it does.

Although a violation of the normality assumption for ordinary least squares is not ideal, regression is robust to the normality assumption, especially when sample sizes are larger, as is the case in this study (Cohen, Cohen, West, & Aiken, 2003). To deal with non-normality in SEM with sample sizes of $N \geq 200$, bootstrapping was used to obtain more robust test statistics (e.g., standard errors, standardized regression weight confidence intervals, test statistic p values; Nevitt & Hancock, 2001). Under this procedure, the data is repeatedly sampled to determine a more robust sampling distribution.

Outliers. Outlier analysis is also a critical data cleaning step; not dealing adequately with extreme scores can materially change the presence, non-presence, size, and direction of an effect (Aguinis, Gottfredson, & Joo, 2013). With respect to this study, the only possibility for extreme scores (i.e., outliers) relates to demographic data. All other items are bound by 5-point or 7-point Likert-type scales, and therefore, do not pose significant outlier challenges. Accordingly, rules for outlier labeling and decision-making do not apply in the same way as when response scales are unbounded or represented by much wider Likert-type scales (Hoaglin, Iglewicz, & Tukey, 1986; Hoaglin & Iglewicz, 1987). When outliers are present, accurately detecting a significant

relationship can be more difficult. In this case, study results may be interpreted conservatively with respect to extreme variance, minimizing the potential for Type I error and maximizing the potential for Type II error.

Linearity and homoscedasticity. In addition, the assumptions of linearity and homoscedasticity were explored by examining scatter plots with dependent variables on the y-axis and predictors on the x-axis, as well as creating scatter plots for regressions of residuals of each dependent variable on predictor residuals. After examining scatterplots, best-fitting lines, and lowess curves, neither assumption was violated. Moreover, residual independence was examined through scatter plots with the dependent variable residuals plotted on the y-axis and case numbers on the x-axis. No residual dependence was detected.

Scale reliability. To ensure that the old and new items within each scale were internally consistent, Cronbach alpha reliabilities were calculated for each of the TWSI factors. Internal reliability coefficients were examined and items that did not correlate highly with other items in the scale (i.e., did not contribute to the internal reliability of the scale) were eliminated. Of the original 58 items, seven items were excluded as follows: three Affective items; one Behavioral item; two Faith vs. Work items; and one Societal Responsibility item. As reflected in Table 2, internal consistency reliability estimates and descriptive statistics were calculated for the study's final scales. Cronbach's alphas for the TWSI factors range between .78 and .93, indicating strong internal consistency and lack of measurement error.

Hypotheses Tests

Factor structure benchmarks and processes. In evaluating the four models (See Appendix A), absolute and relative goodness of fit indices were utilized (e.g., χ^2 , RMSEA, CFI; Hu & Bentler, 1999; Weston & Gore, 2006). Results for the tested models, as well as cut-off values, are reflected in Table 3. The χ^2 statistic did not support fit in each of the models; however, χ^2 is a measure of perfect fit and is strongly influenced by sample size, and therefore should not serve as a sole determinant of model adequacy (Quintana & Maxwell, 1999). For this reason, relative fit indices were employed in the decision-making process.

To test structure and attempt to improve fit, an EFA was conducted on the full item pool using the Maximum Likelihood Estimated (ML) extraction method and orthogonal varimax rotation, whereby the dispersion of loadings is maximized within factors. The Kaiser-Meyer-Olkin (KMO = .906) statistic indicated that variables in this dataset could be grouped into smaller subsets of factors, and the Bartlett's Test of Sphericity, which was highly significant ($p < .001$), indicated the appropriateness of a factor analysis (Field, 2005). Scree plots and eigenvalues were used to consider the appropriate number of facets, which was six, and cross loadings and communalities were utilized to isolate items for elimination. Based on an EFA with a six-factor forced solution, four overarching factors emerged as predominant. Within the four factors, the results suggested that ten items could be considered for elimination, which included one Affective item, four Behavioral items, two Faith vs. Work items, and three Societal Responsibility items. Removing these items contributed incrementally to CFI but slightly weakened RMSEA after employing common string constraints, ($\chi^2 [770; N = 405] =$

1907.519, $p < .001$, CFI = .852, RMSEA = .060). These modifications also created substantial imbalance in number of items across factors at the first-order level. Since fit could not be substantially improved for the best-fitting four-factor model and the construct factors were unbalanced, the full 51 items were retained and utilized in each of the model evaluations and in subsequent discriminant/convergent and predictive validity analyses. In this study, an alternate model approach was pursued. The tests for all four hypothesized models are discussed below.

TWSI single-factor model. Hypothesis 1a posits that the TWSI is best represented as a single-factor reflective model with all items loading onto a single Christian faith, work, and economics focal construct (See Figure 1a, Appendix A). Model fit indices indicated that a unitary structure prior to any modifications was not plausible: ($\chi^2 [1224; N = 405] = 5730.675, p < .001$, CFI = .506, RMSEA = .095). The proposed model was also not a good fit to the data post-modifications: ($\chi^2 [1219; N = 405] = 4688.333, p < .001$, CFI = .619, RMSEA = .084). After revisions using modification indices to covary five subsequent sets of related error terms (Byrne, 2010), the model failed to provide a good fit for the data (See Table 3).

TWSI six-factor model. Hypothesis 1b posits that the TWSI is best represented as a second-order reflective model with six relatively independent dimensions: Affective; Behavioral; Cognitive (personal); Faith through Work; Faith versus Work; and Societal Responsibility (See Figure 1b, Appendix A). In second-order models, covariation among the first-order factors is explained by the regressions on the second-order factors. Prior to any modifications, model fit indices indicated that the reflective six-factor model did not represent a good fit to the data: ($\chi^2 [1218; N = 405] = 3666.735, p < .001$, CFI = .731,

RMSEA = .071). After revisions using modification indices to covary five sets of related error terms (Byrne, 2010), the proposed model was not a good fit to the data ($\chi^2 [1213; N = 405] = 2976.193, p < .001, CFI = .807, RMSEA = .060$). These results indicate that six-factor model was also a poor fit for the data (See Table 3).

TWSI four-factor model. Hypothesis 1c posits that the TWSI is best represented as a third-order reflective model that encompasses four relatively independent facets: (1) TWSI Core Personal, which reflects the Affective, Behavioral, and Cognitive (personal) sub-dimensions; (2) Faith through Work; (3) Faith versus Work; and (4) Societal Responsibility (See Figure 1c, Appendix A). Fit indices indicated that the unmodified reflective four-factor model did not represent a good fit to the data: ($\chi^2 [1217; N = 405] = 3578.378, p < .001, CFI = .741, RMSEA = .069$); however, when covariances for five sets of related error terms were allowed (Byrne, 2010), fit improved. Table 4 summarizes results with error covariances for items 21 and 23, 41 and 42, 7 and 12, 2 and 5, and 3 and 36. The subsequent model showed improved fit ($\chi^2 [1212; N = 405] = 2881.551, p < .001, CFI = .817, RMSEA = .058$). Although χ^2 and CFI fell short of targeted thresholds, RMSEA fell under the fit threshold of .06, indicating good model fit; that is, the patterns of respondents' answers were consistent with the proposed model.

Each of the four regression weights in the reflective four-factor model was significant at $p < .05$. After employing common string constraints to adjust for paths with standardized weights exceeding ± 1 (Gaskin, 2015), standardized regression weights for the four highest-order paths ranged from .652 to .755. Standardized weights for the remaining three second-order paths ranged from .805 to .992 (See Figure 1c, Appendix

A). All bootstrapped data (i.e., standard errors, bias corrected confidence intervals) for this best-fitting model are represented in Table 5.

TWSI two-factor model. Hypothesis 1d posits that the TWSI is best represented as a second-order reflective model that encompasses two relatively independent sub-dimensions: a personalized Faith-Work Integration facet and a Theology of Business facet (See Figure 1d, Appendix A). Model fit indices indicated that this reflective two-factor model prior to any modifications did not represent a good fit to the data: (χ^2 [1223; $N = 405$] = 4931.979, $p < .001$, CFI = .593, RMSEA = .087). Even after revisions that utilized modification indices to covary five sets of error terms (Byrne, 2010), the model was not a good fit to the data (χ^2 [1218; $N = 405$] = 4106.185, $p < .001$, CFI = .683, RMSEA = .077).

Factor structure conclusion. Based on the CFAs, the reflective four-factor, third-order model (See Figure 1c, Appendix A) represents the best-fitting model. This model demonstrated moderately good fit: (χ^2 [1212; $N = 405$] = 2881.551, $p < .001$, CFI = .817, RMSEA = .058). As noted above, all standardized regression paths were statistically at $p < .05$, with highest-order paths ranging from .652 to .755.

Based on this result, for all subsequent analyses, the four TWSI sub-scales and a composite Total TWSI score were used to test the convergent and predictive validity of the measure. Specifically, a TWSI overall mean score was determined by the following steps: (1) taking the overall mean of the three sub-factors (i.e., Affective, Behavioral, Cognitive Personal) that load onto the TWSI Core Personal second-order factor; and then (2) averaging this score with the mean scores of the remaining three factors (Faith through Work, Faith vs. Work, Societal Responsibility) that load directly onto the

overarching TWSI construct. This approach is justified because the standardized regression weights are largely comparable across the dimensions when structuring the model as four independent factors (See Table 5).

Convergent/Discriminant Validity: TWSI and the Faith at Work Scale (FWS)

Hypothesis 2b postulates that certain TWSI factors (i.e., Affective, Behavioral, Cognitive Personal, Faith through Work) will independently be moderately correlated with the FWS, therefore demonstrating convergent validity. That is, these four sub-scales of the TWSI, which measure an individual's personal degree of faith, work, and economics integration, should correlate with the FWS, which also taps personal dimensions of faith-work integration. Conversely, the two remaining TWSI factors (i.e., Faith vs. Work, Societal Responsibility) are not captured on the FWS, and therefore, will be less correlated with the FWS than the first four TWSI dimensions, demonstrating discriminant validity (See Hypothesis 2c).

Results appear in Table 2. In support of Hypotheses 2b, results indicate strong correlations. The correlation between the four personal TWSI factors and the FWS were high. For example, the correlation between the Affective (personal) facet and the FWS was $r(403) = .71, p < .01$; between the Behavioral (personal) facet and the FWS, $r(403) = .77, p < .01$; between the Cognitive (personal) factor and the FWS $r(403) = .81, p < .01$; and the overall TWSI Core Personal factor and FWS was high $r(403) = .87, p < .01$. In contrast, the correlation between the Faith through Work factor and the FWS was more modest, $r(403) = .50, p < .01$, as was the correlation between the Faith vs. Work facet and the FWS, $r(403) = -.26, p < .01$, and the correlation between the Societal Responsibility factor and the FWS, $r(403) = .37, p < .01$. The results support the hypothesis that the first

three TWSI facets tap personal faith-work integration in ways like the FWS, but the three other TWSI scales capture additional dimensions of faith-work integration related to broader themes of a theology of business and economics.

Criterion Validity: TWSI Dimensions and Outcomes

Hypotheses three through six predict that the TWSI dimensions will be related to ethical behavior, task and contextual performance, turnover intentions, and faith maturity. Results are discussed below.

Ethical behavior. Hypothesis 3a postulates that the TWSI, understood as a four-factor reflective model, will predict ethical behavior above and beyond the control variables, which consist of respondent age and years as an active Christian. To conduct this analysis, the control variables were entered in block one of the hierarchical regression, and the TWSI Core Personal facet (an average of the Affective, Behavioral, and Cognitive scores) was entered in block two. Lastly, the Faith through Work, Faith versus Work, and Societal Responsibility dimensions were entered in block three. Results supported the hypothesis, as the TWSI Core Personal factor significantly predicted ethical behavior above and beyond control variables, $F(1, 398) = 20.60, p < .001, \Delta R^2 = .05$. Moreover, the Faith through Work, Faith vs. Work, and Societal Responsibility factors accounted for an additional 1.8% in overall variance, $F(3, 395) = 2.68, p < .05$. Altogether, the TWSI dimensions accounted for 9.3% of total variance in ethical behavior after controlling for age and years as an active Christian (See Table 6). Furthermore, the results show that two of the scales (TWSI Core Personal, Societal Responsibility) account for unique variance in ethical behavior, indicating that these dimensions of faith-work integration are important dimensions on their own, and the

predictive power of ethical behavior would be lost if they were not included in the measure. That is, the other dimensions cannot make up for the predictive power they add.

Hypothesis 3b postulates that the TWSI will predict Ethical Behavior above and beyond the control variables and the FWS, demonstrating discriminant criterion validity beyond how faith and work integration is typically operationalized through the FWS. To conduct this analysis, the control variables were entered in block one of the hierarchical regression, the FWS in block two, the TWSI Core Personal dimension in block three, and the other three TWSI dimensions (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) in block four. After controlling for respondent age and years as an active Christian, as well as the FWS, the TWSI Core Personal dimensions significantly predicted ethical behavior above these variables, $F(1, 397) = 4.52, p < .05, \Delta R^2 = .01$. The remaining three TWSI facets as entered in block four (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) accounted for 1.8% additional variance, $F(3, 394) = 2.66, p < .05$. Of these three broader theological facets, Societal Responsibility was the only facet that significantly predicted ethical behavior above and beyond all other variables (See Table 7).

Task and contextual performance. Hypothesis 4a suggests that the TWSI will predict self-reported task and contextual performance above and beyond the control variables, which include age and years as an active Christian. To conduct this analysis, the control variables were entered in block one of the hierarchical regression, TWSI Core Personal in block two, and the three remaining TWSI factors (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) in block three. Results supported the hypothesis

that contextual performance is predicted by TWSI dimensions, but the hypothesized relationship to task performance was not supported. The TWSI Core Personal dimension significantly predicted contextual performance, $F(1, 398) = 44.01, p < .001$, accounting for an additional 9.8% of variance in contextual performance. The three remaining TWSI factors as entered in block three (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) did not significantly account for additional variance in contextual performance, $F(3, 395) = 1.13, p = .34$. Thus, personal faith-work integration seems to be most related to contextual performance. Tables 8 and 9 reflect regression coefficients, standard errors, significance tests, and changes in R^2 for task and contextual performance, respectively.

Hypothesis 4b suggests that TWSI Behavior (a first-order sub-facet of the TWSI Core Personal factor) will significantly predict self-reported task and contextual performance above and beyond the control variables. To conduct this analysis, the control variables were entered in block one, and the Behavior sub-facet in block two. The Behavioral dimension was significantly predictive of self-reported task performance, $F(1, 398) = 15.57, p < .001$, which accounted for an additional 3.8% of overall variance in task performance. Moreover, the Behavioral dimension was significantly predictive of contextual performance, $F(1, 398) = 65.52, p < .001$, accounting for an additional 14% of overall variance. Utilizing Fisher's z -test, these differences are statistically significant, $z = 3.17, p < .01$ (two-tailed test). Thus, the results suggest that Behavioral integration plays a more prominent role than Affective and Cognitive (personal) dimensions in both task and contextual performance, with a particularly strong impact on contextual performance (See Tables 10 & 11).

Turnover intentions. Hypothesis 5a proposes that the TWSI will significantly predict lower turnover intentions above and beyond the control variables, which consist of age and active years as a Christian. To conduct this analysis, the control variables were entered in block one, the TWSI Core Personal dimension in block two, and the remaining three TWSI factors (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) in block three. The TWSI Core Personal facet was significantly predictive of lower intentions to leave a job, $F(1, 398) = 64.45, p < .001$, which accounted for 13.7% incremental variance in overall turnover intentions. The direction of the TWSI Core Personal and turnover intentions relationship was as hypothesized. That is, a higher level of personal integration appears to lead to lower turnover intentions. The remaining three factors (i.e., Faith through Work, Faith vs. Work, Societal Responsibility), entered in block three of the hierarchical regression, were, as a group, significantly predictive of turnover intentions, $F(3, 395) = 11.27, p < .001, \Delta R^2 = .066$; that is, the three additional factors predicted an additional 6.6% of the variance in turnover intentions. More specifically, Faith through Work was significantly predictive of turnover intentions but in the opposite direction as hypothesized. That is, respondents who largely viewed their own work and/or God's presence at work through an instrumental lens were more likely to leave their current work roles than those who did not. Faith vs. Work was also significantly predictive of turnover intentions but in the hypothesized direction. That is, respondents with a bifurcated view of faith-work integration were more likely to leave their current jobs than those respondents who were more integrated. Table 12 reflects regression coefficients, standard errors, significance tests, and changes in R^2 for turnover intentions regressed on each of the TWSI facets in

blocks two and three. Lastly, Societal Responsibility was not significantly predictive of turnover intentions in either a positive or negative direction.

The results for Faith through Work may seem counterintuitive. A person who understands the instrumental nature of their work and/or God's work through the workplace might be expected to be less likely to leave their current job. However, individuals with a high instrumentality view of work may also concurrently set a high personal bar for the potential impact of their work to cause positive change in the world. When one's current work instrumentality does not meet one's theological aspirations, it is likely that a person could become increasingly frustrated, and, in turn, progressively intentioned to leave their current assignment. In contrast to Faith through Work, results for Faith vs. Work are as hypothesized. A person who views their faith and work in fractionalized ways will struggle to connect these two dimensions of life, which will create greater personal dissonance and an increased likelihood that one will seek to leave a current work assignment in search of better perceived prospects.

Hypothesis 5b suggests that after controlling for age and years as an active Christian, organization-person fit will significantly moderate the TWSI and turnover intentions relationship such that those who experience greater consistency between their organization and personal values will experience lower intentions to leave their jobs. Results did not support this hypothesis, $F(4, 390) = 1.16, p = .327$. Although organization-person fit, alongside the TWSI Core Personal and Faith vs. Work dimensions, leads to lower turnover intentions, it does not significantly moderate the TWSI and turnover intention relationship. Table 13 reflects regression coefficients,

standard errors, significance tests, and changes in R^2 for turnover intentions regressed on each of the TWSI facets and interaction terms in blocks two and three.

Faith maturity. Hypothesis 6a suggests that the TWSI factors will predict faith maturity above and beyond the control variables. To conduct this analysis, the control variables were entered in block one of the hierarchical regression, the TWSI Core Personal factor in block two, and the Faith through Work, Faith vs. Work, and Societal Responsibility factors in block three. The TWSI Core Personal dimension strongly predicts faith maturity, $F(1, 398) = 333.64, p < .001, \Delta R^2 = .45$; that is, personal faith-work integration accounts for an additional 45% of the variance in faith maturity. The other three TWSI factors (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) did not predict faith maturity beyond the control variables and the TWSI Core Personal dimension. Table 14 reflects regression coefficients, standard errors, significance tests, and changes in R^2 for faith maturity regressed on each of the TWSI facets in blocks two and three.

Hypothesis 6b posits that the TWSI will significantly predict faith maturity above and beyond the control variables and the FWS. To conduct this analysis, the control variables were entered in block one, the FWS in block two, the TWSI Core Personal dimension in block three, and the remaining three TWSI factors (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) in block four. As expected, the FWS significantly predicted faith maturity, $F(1, 398) = 418.45, p < .001, \Delta R^2 = .51$. The TWSI Core Personal dimension also significantly predicted faith maturity above and beyond the FWS, $F(1, 397) = 10.34, p < .01$, accounting for an additional 1.2% of overall variance, indicating that it is predictive of faith maturity in some ways, albeit small, beyond the

FWS. The remaining three TWSI factors did not significantly predict faith maturity, $F(3, 394) = .72, p = .54$. Table 15 reflects regression coefficients, standard errors, significance tests, and changes in R^2 for faith maturity regressed on each of the TWSI variables in blocks three and four.

CHAPTER IV

Discussion

Summary of Findings

Findings from this study provide overall support for the validation of the Transformative Work in Society Index (TWSI), which taps the construct of Christian faith, work, and economics integration. Study results are useful because they provide evidence that faith, work, and economics integration matters and is related to one's ethical conduct, personal performance, and intentions to stay in one's job, as well one's overall faith maturity. Furthermore, the TWSI is a validated measure that can be utilized by a wide variety of research and practitioner communities to capture several ways that faith-work integration can play out in the workplace: (1) affectively, behaviorally, and cognitively at a core personal level; (2) instrumentally, as a means to reflect God's good purposes for work, as well as to exercise personal agency in carrying out good work in the workplace; (3) intrinsically, in ways that renarrate false sacred-secular theological dichotomies for faith and work; and (4) ethically, in ways that show broader concern for the common good and societal flourishing. The measure is also unique in its specificity, namely, its focus on Christian belief and practice shared by Protestant, Catholic, and Eastern Orthodox traditions, and its recognition that integrated work is always embedded within broader economic associations and commitments. The TWSI's specificity to the Christian faith, and its incorporation of the totality of what it means to be agentic human beings at multiple levels of engagement in the workplace, creates greater clarity and precision and differentiates it from the ways that others have examined general concepts of spirituality and religiosity. When the uniqueness of faith traditions is conflated and/or

religion is studied as a unitary rather than multilayered construct, vital differences among religious communities are lost (Cacioppo & Brandon, 2002). The TWSI's multidimensional and Trinitarian focus sharpens construct specificity and can reverse trends toward religious confusion in psychological research.

The validated TWSI also aids the field by offering insight on the impact of religion on workplace outcomes, which often lead to healthier employees and organizations (Lynn et al., 2013; Walker, 2013). More specifically, in the context of this study, Christian faith, work, and economics integration, as captured by the TWSI, was related to ethical behavior, self-reported contextual performance, turnover intentions, and faith maturity. Validation of the TWSI within its broader nomological net of workplace outcomes and measures opens new research possibilities, as well as applications for employees and employers alike, to seek greater integration, coherence, and impact *at and through* work. A discussion of key findings follows.

Multidimensionality. As part of this research, four measurement models were examined under an alternate model approach, which included first-order, second-order, and third-order reflective structures. When examining the potential models, the four-factor, third-order reflective model emerged as the best representation of the TWSI. The model's composition indicated four dimensions of faith, work, and economics integration, as follows: (1) a Core Personal dimension, which manifests the affective, behavioral, and personal cognitive sub-facets of living out one's faith at work (e.g., "I pray for other people, such as colleagues and customers, throughout my workday"); (2) a Faith through Work theological dimension that captures the many ways that God is present in work and economic relationships, as well as ways individuals can live out their

faith through the exercise of their work (e.g., “Business is one of the professions God uses to make the work a better place”); (3) a Faith vs. Work theological dimension that captures some of the false dichotomies that are perpetuated between faith and work (e.g., “Business and Christian faith are naturally in conflict”); and (4) a broader theological Societal Responsibility dimension that addresses Christianity’s claims on workers to serve others, as well as broader community concerns (e.g., “Good work serves the common good”).

TWSI convergent/discriminant validity. Analyses indicated that the TWSI personal faith-work sub-dimensions exhibited relatively strong correlations with the Faith at Work Scale (FWS; Lynn et al., 2009), supporting the observation that the FWS, an example of current faith-work constructs and measures, primarily focuses on how people personally live out their faith in the workplace. In contrast, the TWSI’s three general theological dimensions (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) showed weaker correlations to the FWS, indicating that they were likely tapping additional dimensions of faith and work than some of the existing faith-work measures. These results suggest that personal dimensions of faith at work (e.g., pietistic practices, work relationships, role of giving) are well represented in existing faith-work measures. What appears to be missing in faith-work assessment is a broader understanding of how Christian faith shapes awareness of marketplace structures/systems, false faith-work dichotomies, and broader societal and ethical concerns. When evaluating current faith-work measures, promoting justice and demonstrating concern for the common good have been largely individualized and reduced to personal virtues only (Forster, 2015). In addition, the value and meaning of

work are often reduced to instrumental purposes with limited regard for the intrinsic goodness of work as image-bearing activity.

What also seems to be lacking in existing faith-work constructs and measures is a broader *telos* that incorporates unified commitments to both individual and organizational/societal levels of transformation. Work, as originally given to humanity (“The LORD God took man and put him in the garden of Eden to till it and keep it,” Gen. 2:15, New Revised Standard Version), involves both productive and protective components (Volf, 1991). Existing measures often focus on the personal and productive elements of faith-work integration with less attention on the broader protective, systemic, and ethical dimensions of faith-work integration. Accordingly, good work should not only be productive and fruitful in its mirroring of the Creator, but should also shape and uphold fair economic systems, which honor human dignity, consider the needs of the larger community, and protect the environment from irreversible damage (Volf, 1991).

The Bible supports this broader perspective for systemic transformation through work, as does ecclesiastical teaching throughout church history, including most recently Pope Francis, who encourages pushing back against “an economy of exclusion and inequality” (Francis, 2013). Calvin (n.d.), in his commentary on Galatians and Ephesians (See Eph. 4:28), emphasizes that human beings should choose good work that extends beyond meeting personal needs by maximizing service to neighbors. Honorable labor is to extend beyond personal utility of craft or trade to serve the common good by caring for the necessities of others. Thus, as Cavanaugh (2008) observes, economics and work systems that are free and voluntary should transcend a merely functional perspective that understands freedom as lack of government intervention; rather, they should root

themselves in a *telos* that considers the ends of human dignity and flourishing. The TWSI taps this broader teleological perspective.

Through its four facets, which address both personal and public dimensions of faithful work nested within economic relationships, the TWSI offers a more comprehensive framework for assessing faith-work integration. It accomplishes this goal by encompassing the personal, intrinsic, instrumental, ethical, and theological facets of faithful work commitments and practices. In doing so, the TWSI helps move Christian faith, work, and economics measurement from focusing largely on privatized concerns to dimensions that consider a more holistic understanding of transformation.

TWSI criterion validity. One's faith-work integration, as measured by the TWSI, was hypothesized to predict five outcomes: ethical behavior, task performance, contextual performance, turnover intentions, and faith maturity. Two of these variables—turnover intentions and self-reported task performance—had been tested empirically in other faith and work integration studies and had produced counterintuitive results, whereby faith-work integration was negatively correlated with both job performance and positively related to turnover intentions (Walker, 2013). An aim of this study was to help clarify these specific relationships, while validating the TWSI. Results indicated that the TWSI dimensions were related to ethical behavior, contextual performance, task performance (when only focusing on the Behavioral sub-facet), lower turnover intentions, and faith maturity. Each of these findings is discussed below in the context of past research.

Ethical behavior. Results indicated that the TWSI factors significantly predicted incremental variance in ethical behavior. Furthermore, the TWSI also predicted Ethical

Behavior above/beyond the Faith at Work Scale (FWS), demonstrating discriminant criterion validity beyond how faith and work integration is typically operationalized; that is, the TWSI adds predictive capacity for ethical behavior beyond what current measures of faith-work integration capture. These results suggest that all four TWSI faith-work dimensions are related to ethical behavior. This would imply that effective training curricula in church, workplace, and other educational contexts should address personal attitudes (i.e., habits of the heart), cognitions (i.e., patterns of the mind), and behaviors (i.e., actions in the world), as well as larger theological constructs that address the instrumental, intrinsic, and ethical ramifications of faith-infused work.

Task and contextual performance. Study results did not indicate that the TWSI was significantly predictive of positive self-reported task behavior; however, in contrast to Walker's (2013) findings, a significant negative relationship was not found between Christian faith, work, and economics integration and in-role job performance. One reason for this non-negative finding might be that the TWSI dimensions more fully tap the intrinsic goodness/meaningfulness of in-role job requirements. To improve TWSI and task performance linkages, theological training could further target the intrinsic value of all forms of legitimate work, especially forms of work that may be less relational and more technical in nature than extra-role dimensions of work. Moreover, to strengthen construct validity related to the faith-work integration and job-performance relationship, work performance data could be sought from peers, supervisors, and supervisees rather than from self-reporting alone.

The TWSI Core Personal dimension was significantly predictive of self-reported contextual performance. The remaining three TWSI factors (i.e., Faith through Work,

Faith vs. Work, Societal Responsibility) did not significantly account for incremental variance in self-reported contextual performance above the personal dimensions, indicating that a personalized faith-work theology seems to be most predictive of contextual performance. Likewise, bivariate correlations indicate that the broader faith-work theological facets are significantly related to contextual behavior, but not as strongly related as the TWSI Core Personal dimension. These results are not entirely surprising, as one might anticipate that personalized faith-work integration (captured through personal affections/attitudes, behaviors, and cognitions) could relate more proximately to helping and serving others in the workplace (e.g., contextual performance) than conceptual theological and integrative dimensions. The following two TWSI items illustrate this point. The behavioral item, “I seek to serve others every day at work,” reflects the TWSI Core Personal dimension, whereas, “Good work serves the common good” reflects the Societal Responsibility factor. Although both items are strong indicators of Christian faith, work, and economics integration, the first item is stated in the first person and is directly associated with personal actions at work, whereas the second item is framed as a general theological concept that does not have as direct line-of-sight to contextual performance at work.

Future research could examine the relationship between the three broader theological factors (i.e., Faith through work, Faith vs. Work, Societal Responsibility) and service-oriented performance measures undertaken outside the formal work environment (e.g., volunteerism, activism, civic engagement) to test whether the same or different predictive patterns emerge. It may be that personalized faith-work integration is more predictive of task- and piety-related outcomes at work (e.g., contextual performance,

ethical behavior), whereas broader and more external-oriented dimensions of faith, work, and economics integration are increasingly predictive of external helping activities that are focused outside of the immediate work environment (e.g., volunteering, engaging in civic service). External helping activities might be expected given the lateral/community orientation of the broader theological factors.

As hypothesized, TWSI Behavior significantly predicted self-reported task and self-reported contextual performance. One would expect that behavioral integration would relate directly to both in-role and extra-role job performance; however, the stronger predictive relationship between the Behavioral sub-facet and contextual performance ($\Delta R^2 = .14$) versus the Behavioral facet and task performance ($\Delta R^2 = .038$) is somewhat counterintuitive, as behavioral integration has as much opportunity to be expressed through in-role activities as it does through extra-role activities. These findings may indicate a bias on the part of workers to link behavioral faithfulness to work that is not a part of the formal job description. In jobs that are conceived as more tactical or technical in nature (e.g., building financial models), one could imagine a dualistic mindset setting in, whereby in-role job performance is not viewed as compelling an outcome of behavioral integration as is contextual performance, which may allow for more service and relationally-oriented inputs.

Turnover intentions. As predicted, the TWSI significantly accounted for lower turnover intentions. These findings stand in contrast to Walker's (2013) results, where faith-work integration was predictive of higher, rather than lower turnover intentions. The difference in results may be because the TWSI more fully taps the intrinsic goodness of work, thus weakening the predictive relationship between one's faith-work integration

and one's need to leave his/her current job. As noted later, one potential explanation—lack of fit with organizational values—did not account for the differences.

Future research might investigate the personal affective, behavioral, and cognitive dimensions of faith-work integration on turnover intentions. For example, in this study, the TWSI Core Personal dimension was predictive of lower intentions, whereas the broader TWSI faith-work theological dimensions were mixed in their prediction of higher intentions to leave one's job. The personalized nature of the TWSI Core (personal) dimension, as reflected by individual affections, behaviors, and cognitions, has a more direct linkage to personalized expectations to leave one's current job than do the broader faith-work theological facets (i.e., Faith through Work, Faith vs. Work, Societal Responsibility). The more externally-oriented dimensions of faith-work integration tap into theological concepts related to broader issues of systemic justice and service toward the common good. Many jobs do not regularly deal with wider societal issues. Thus, it is not surprising that a perceived gap between one's present work and perceived instrumentality to create positive change through work could result in increased intentions to leave one's work. As an individual grows in faith, work, and economics integration, they might entertain thoughts such as the following: "My job is more technical in nature and does not present an opportunity to transform the world; therefore, I need to make a change if I am going to be engaged in meaningful work." Consequently, an important objective of faith-work integration research and practice should reinforce the value of work at its many levels and in its many forms and responsibilities. If one's work is more technical in nature, viewed to lack instrumentality, and/or limited to a smaller array of stakeholders, faith-work integration can be exercised

in ways that are different, yet just as vital to those who have a broader array of responsibilities and stakeholders to manage.

Contrary to what was postulated, organization-person fit did not significantly moderate the TWSI and turnover intentions relationship such that those who experience greater consistency between their organization and personal values have lower intentions to leave their jobs. These results are counter-intuitive and suggest that other forces may be at work in moderating the TWSI and turnover intentions relationship. Some of the possibilities, such as stress-related and social support factors, are proposed later as areas for further research.

Faith maturity. The TWSI Core (personal) facet strongly predicted faith maturity (i.e., the degree to which a person's life is animated by a gratifying faith orientation). However, the three remaining TWSI factors (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) did not predict faith maturity. This is not an entirely surprising outcome, as the Faith through Work, Faith vs. Work, and Societal Responsibility facets deal with a broader array of theological concepts (e.g., the role of business in society) that extend beyond the vertical (individual to God) and horizontal (individual to individual) commitments captured by the FMS. These findings may expose a gap in the FMS and in other measures that attempt to capture the lateral relationships that are shaped by Christian faith. Rather than conceptualizing faith maturity in horizontal terms that largely relate neighbor to neighbor, this research suggests that the concept should be broadened to include nested relationships of individuals within broader communities and institutions of culture (e.g., economic systems, natural environment, common good).

Finally, the TWSI Core Personal facet minimally predicted faith maturity above and beyond the FWS. The remaining three TWSI faith-work theological facets did not significantly predict faith maturity by themselves, nor as a group beyond the core personal faith facet.

Implications for Theory and Future Research

Dimensionality. Validating the TWSI offers unique contributions for assessing the construct of Christian faith, work, and economics integration. This study's outcomes within the broader nomological net of concurrent criterion variables aids both researchers and practitioners, alike, to better understand and inspire Christian faith, work, and economics integration, and to consider the multi-dimensional nature of faith-work integration and its relationship to important individual and work-related outcomes. Current faith integration measures such as the FWS and the FMS, deal largely with coherence from a privatized perspective, focusing less on broader ethical, service, and justice concerns that play out at mezzo and macro levels. The TWSI targets this gap by broadening its affective, behavioral, and cognitive indicators, and enlarging the business and economic issues it addresses. The TWSI starts with the idea that work is relational; workers may carry out tasks singularly, but they are most often embedded within a web of interdependent economic relationships (e.g., customers, shareholders, suppliers, board members, competitors, natural environment).

In this study, the 51-item four-factor, reflective measurement model of faith, work, and economics integration was the best match for the data. Future work might investigate a short version of the measure that would tap the same factors but make it easier for researchers and practitioners to include the measure in their work. In addition,

formative and profile models, rather than reflective models, can be considered theoretically and tested empirically. In contrast to reflective models, a formative structure is constructed by the mathematical outcome (either additive or multiplicative) of its various facets (Law et al., 1998; Law & Wong, 1999). Thus, rather than the sub-dimensions *reflecting* integration, as is the case with latent models, it could be that the unique aggregation of factors is what *forms* integration. Furthermore, it is also possible that the TWSI functions as both a reflective and an aggregate model simultaneously, whereby the TWSI Core Personal dimension reflects personal integration affectively, behaviorally, and cognitively, and the remaining three broader theological constructs (i.e., Faith through Work, Faith vs. Work, Societal Responsibility) combine to form faith-work integration. When dimensions and/or indicators are strongly correlated in measurement models, it is more likely that a reflective model is operative (Jarvis et al., 2003). Correlational patterns in this study suggest the possibility of a hybrid structure, as correlations are much stronger for the sub-facets reflecting the TWSI Core Personal dimension than they are within the remaining three TWSI factors. In addition, some of the TWSI dimensions do not share the same criterion variables (e.g., contextual performance), which serves as another signal that formative components may also be operating (Jarvis et al., 2003).

The foundation for this study rests on a theological argument that supports reflective dimensionality, whereby facets of Christian faith-work integration are conceptualized as iterative, progressive, and mutually-reinforcing forces (Phil. 1:6; Col. 3:9-10; Erickson, 1998; Oden, 2001). At any given time, Christ followers in the workplace might reflect an uneven mix of the four TWSI factors, yet still *image* enough

of the character of God to lead an integrated life. For example, a person might first reflect integration at a personal affective level, and then develop a broader commitment to Christian theology at work within the larger web of economic relationships.

Alternatively, a Christian worker might first develop a faith-infused understanding of broader ethical issues in the workplace, which then reinforces a deepening commitment to acts of workplace piety. Thus, based on a reflective paradigm, Christian faith, work, and economics integration might be best characterized by greater awareness and practice across all (or some combination) of the TWSI dimensions.

Future research might examine other causal links and relationships among the four faith-work integration dimensions. Evidence based on scripture could lead one to view faith-work integration as causal formation or a unique profile of factors. For example, James writes, "...faith by itself, if it has no works, is dead" (Jas. 2:17, New Revised Standard Version), and Paul exhorts believers that all spiritual gifts exercised in the absence of love result in *nothing* (1 Cor. 13: 1-3). Jesus himself warns, "A good tree cannot bear bad fruit, nor can a bad tree bear good fruit. Every tree that does not bear good fruit is cut down and thrown into the fire. Thus, you will know them by their fruits" (Matt. 7:18-20, New Revised Standard Version). In each of these texts, one might conclude that some distinct aggregation and/or profile of character/spiritual traits is necessary for faith-work integration.

Moderators of faith-work integration and outcome relationships. Contrary to what was expected, the current study found that organization-person fit did not moderate the relationship between faith, work, and economics integration and turnover intentions. For the three externally-oriented TWSI facets (i.e., Faith through Work, Faith vs. Work,

Societal Responsibility), it may be that one's span of control or the extensiveness of one's spheres of influence are better candidates for moderation than organization-person values alignment, such that those who demonstrate high faith-work integration and have a broader range of stakeholder responsibilities (i.e., opportunity to actuate the three external-oriented dimensions of integration) are less likely to leave their current jobs. For many workers, it may be that the three externally-oriented factors seem less proximate to their given work situation, and therefore, organization-person fit has little bearing on determining the direction/strength of the TWSI and turnover intentions relationship. It may also be that as one deepens in faith-work integration, one may make better personal career decisions by pursuing jobs/roles that are more closely aligned with what they believe God has called them to do. Thus, the moderating role of organization-person fit might be diminished.

Other moderators that could be introduced into the turnover intention research include stress-related elements, which have been linked to both higher turnover intentions and actual turnover (Podsakoff, et al., 2007), as well as job satisfaction, which seems to predict lower turnover intentions (Tett & Meyer, 1993). Moreover, a meta-analysis by Humphrey et al. (2007) showed that social characteristics (e.g., feedback from others, social support, and interdependence) appear to be significantly negatively related to turnover intentions. Each of these variables could be introduced to examine its impact on the faith, work, and economics integration and turnover intentions relationship.

Future research could explore additional factors that might moderate the relationship between faith-work integration and personal/organizational outcomes. For example, one could imagine that faith-work integration may be particularly important

under high stress situations (Harrowfield & Gardner, 2010), or when one challenges a power structure such as when whistleblowers call out unethical organizational practices (Grant, 2002). Moreover, Horvath (2015) found that a sense of calling influences the religiosity and work outcome relationship by redirecting greater effort toward on-the-job responsibilities (e.g., job involvement, number of hours worked) rather than religious activities. In Horvath's work, individuals who believed their work was linked to a transcendent call were more likely to allocate limited internal resources toward the work itself.

Christian faith traditions. Future research could consider the unique Christian theological traditions and how they do (or do not) reflect the four faith-work integration dimensions. For example, the Reformed tradition places a heavy emphasis on the life of the mind and sovereignty of God, whereas Pentecostals prioritize the embodied religious experience and the role and vitality of the affections (Entwistle, 2015). Given these differences, research could examine the relationship between those in the Reformed and Pentecostal traditions with respect to the TWSI factors, which uniquely accent different elements (i.e., affective, behavioral, cognitive) of the Christian life. Other communities to study might include Wesleyans, Roman Catholics, Anabaptists, and Eastern Orthodox Christians. For example, Wesleyans, with an emphasis on ongoing sanctification and the pursuit of holiness (Collins, 2007), might prioritize action as an integral step toward greater faith-work coherence. Wesleyans also understand passions as disordered, placing emphasis on the proper ordering of affections (Entwistle, 2015). This commitment might lead to a heightened awareness of the affective dimension of faith-work integration. Conversely, Anabaptist communities underscore community life, service, pacifism,

peacemaking, incarnation, and justice (Entwistle, 2015), which might significantly reflect the ethical and societal responsibility factors of faith-work integration more than some of the other dimensions. The Roman Catholic tradition accentuates ritual and liturgy, engages in social service, and draws on its Magisterium for Christian formation (Entwistle, 2015). Similarly, the Orthodox also draw on ritual and liturgy, and understand all of life as sacramental experience (Schmemmann, 1973). With their rich traditions and doctrine, as well as deep commitments to spiritual experience through liturgy, the Roman Catholics and Eastern Orthodox traditions might reflect a balanced approach to faith-work integration across each of the four TWSI factors.

A study examining church and denominational bodies can reflect a multi-level model, where dependent variables occur at the organizational level, and independent variables at the individual level. In multi-level analysis, it is important that levels are tested independently (i.e., individuals nested within units, and units within organizations) and then between-level comparisons studied to determine relational patterns (Dixon & Cunningham, 2006; Hallgren, 2012). Future research could probe multi-level relationships across varied faith communities.

Other outcome measures. The relationships between the four TWSI dimensions and other outcomes could also be examined to better understand how different facets of faith-work integration are related to outcomes valued (or sought to prevent) in the workplace. Several factors that could be important to study include job satisfaction, job stress (burnout), and work-family balance, which might benefit from a deepening sense of faith, work, and economics integration. One might expect a maturing Christian in the workplace to find greater meaning in his/her work, leading to greater job satisfaction.

One might also expect a more highly integrated person to find healthier ways to modulate seasons of excessive work and work-family conflict, leading to less job stress and greater congruence between work and family demands.

One of the related dimensions to faith-work integration is rest (Sabbath), which is also part of God's creational design (Gen. 2:2-3) and code (Exod. 20:8-10), but which has often been de-emphasized alongside a theology of work. A Christian theology must not subordinate leisure to work, as both are foundational and creational activities that represent an alternating rhythm of a flourishing life (Volf, 1991). A rest or Sabbath measure could be introduced as both a moderator and mediator to better understand the relationship between faith, work, and economics integration and work-related outcomes. Because work and leisure are more than alternating activities, but also mutually reinforcing and interdependent activities, research should be undertaken to better understand how they shape one other.

Lastly, the TWSI can be studied to see how it relates to non-work related outcomes. God did not just create us as workers, but also as individuals who express personhood through other affective/attitudinal, behavioral, and cognitive dimensions of life. One possible area of research would be to examine the relationship between the fruit of the Spirit (Gal. 5:22-23; love, joy, peace, patience, kindness, goodness, gentleness, faithfulness, self-control) and facets of the TWSI. Research could also examine the relationship between faith-work integration and personality dimensions.

Implications for Practice

As a variety of external forces (e.g., globalization, rapidly changing technology, labor outsourcing, the environment) change communities and place strain on ethical

norms and relational ties at work (Cascio, 2003; Friedman, 2016; Tippins & Coverdale, 2009), employers can find ways to help employees bring the fullness of who they are as agentic, meaning-making beings into the workplace, which includes religious expression. For example, consider ethical behavior. Employers would be well-served to support religiously-motivated morality, since most religious traditions—including Christianity—encourage ethical conduct, and both ethics and spirituality have been linked to improved organizational performance (Jurkiewicz & Giacalone, 2004; Kolodinsky, Giacalone, & Jurkiewicz, 2008). In the context of this study, the TWSI Behavioral sub-facet was related to ethical behavior, improved task and contextual performance, and lower turnover intentions.

To encourage ongoing movement in the direction of faith integration at work, the current study suggests that religious communities would be wise to equip Christians to make linkages between their faith and work roles/responsibilities. Churches, Christian colleges, and seminaries can play an important role in this effort by theologically counteracting the bifurcation of work and religion that dominates many faith and non-religious communities. For example, religious organizations might utilize the TWSI as a tool to audit individual, team-level, and organization-wide integration. The TWSI can be used to track deepening faith-work maturity in church members, as well as program efficacy of educational initiatives. With a validated quantitative measure, churches can begin to take seriously whole-life discipleship initiatives across a wide range of church activities, such as preaching, adult education, mission trips, and stories that are celebrated in worship and in other forms of community life. Future research and practice can also examine ways that faith communities have successfully applied the TWSI—or other

faith-work integration measures—for building a culture of coherence across stakeholder communities, such as pastoral teams, governing boards, church membership, and youth ministries.

Lastly, the TWSI might be used in work-related and educational settings as a form of personal and unit-level after action review (AAR). The TWSI probes religious and ethical attitudes, actions, and cognitions, which often operate below conscious awareness. By leveraging the TWSI as a form of personal and community reflection, deeper motivations and convictions behind actions can be brought into the open. For example, drawing on the TWSI, individuals and teams can engage in AARs about why they responded as they did to various forms of work-related pressures, as well as explore the role of faith on their actions. The TWSI might be especially helpful for faith-based organization leadership teams (e.g., executive management, board of directors) who are seeking to better understand certain patterns of decision-making. For example, false theological dichotomies might exist organizationally, whereby certain employees (e.g., front-line relief workers) carry more religious value to executive management than do administrative staff.

Limitations

Although this study offers many important contributions for better understanding the impact of faith in the workplace, it also presents some limitations. One primary threat for statistical conclusion validity is restriction of range for the TWSI factors (means range from 4.1 to 4.5 on a 5-point scale). Similarly, other scales (excluding turnover intentions and organization-person fit) were all over 4.0 with standard deviations of less than 0.64. One possibility is that Christian faith was more central to the identity of

respondents than in the general population. For example, the FWS mean scores in this study were much higher than those in Lynn et al. (2009), indicating that the high-frequency church attendance and years as an active Christian might have resulted in higher faith-work integration than might be reflected in a broader population who self-identifies as active Christians. This threat to statistical conclusion validity makes it more difficult to find the predicted relationships (Type II errors; Shadish, Cook, & Campbell, 2002), suggesting relationships might be even stronger in the general population.

With respect to internal validity, statements of causality in this study cannot be made since all observations are concurrent and correlational (i.e., cross-sectional rather than experimental in nature; Shadish, et al., 2002). To demonstrate causality, faith-work integration (operationalized as the TWSI) must precede other criteria, be manipulated versus a control condition, and utilize random assignment of participants so that the manipulated variable is the only one that differs between conditions, while other variables are randomly distributed between groups. Given these conditions for causality, future research could be undertaken where TWSI dimensions are developed in training programs for some participants, and then compared to participants who did not receive the training. A study of this nature would begin to assess the impact of the TWSI faith-work integration dimensions on work and life outcomes over time.

In addition, construct validity, differentiation, and independence of the four TWSI dimensions is threatened in the current study by common method bias, which relates to aspects of measurement (e.g., same method of data collection across variables; actual content structure of items; characteristics of the examiner and/or study setting) and can cause participants to respond to the questions similarly, which in turn can cause spurious

relationships between independent and criterion variables unrelated to the constructs (Conway, 2010; Podsakoff, MacKenzie, & Podsakoff, 2012; Shadish et al., 2002).

Future research could investigate measures that are independently assessed (e.g., TWSI self-reports and manager performance ratings of integration).

Finally, external validity could be expanded in future research studies. The current study had a broad sampling of gender, age, and work contexts. However, the snowball sampling was skewed toward regular church attenders (67.5% of respondents self-reported as attending church at least once per week) and longer-term Christians (mean of 32 years as an active Christian). Given a less devout and less mature sample, follow-up research could further probe the effect of the moderator on turnover intentions. It may be that respondents who self-identify as regular church attenders and who have been adherents of the Christian faith for a longer period make inherent choices that result in tighter alignment between work-related and personal values, therefore reducing the impact of the moderator on turnover intentions.

Future work should include additional respondents across categories of race (85% of study respondents were White), denominations (87% of study respondents were Protestant), and countries of residence. Different ethnic and cultural groups often view faith and work through different lenses, which likely plays out in how they approach faith-work integration. One area of empirical research might be how the array of Christian traditions (e.g., Wesleyan, Reformed, Charismatic, Anabaptist, Evangelical, Roman Catholic) uniquely approach faith-work integration. For example, Charismatics might lend greater credence to the work of the Spirit and “lived” Christian experiences, whereas those in the Reformed tradition might place greater value on the life of the mind

in shaping greater faith-work coherence. To further test the construct validity of the TWSI's four dimensions, a better understanding of how the different faith traditions approach whole-life discipleship in the workplace might be a vital next step.

Conclusion

The TWSI makes it possible for employees to bring their whole self as religious and agentic human beings to work, so that they and their organizations might increasingly flourish. The average American worker logs 47 hours of work per week (Saad, 2014); based on time spent at work, our work environments create one of the most formative environments we engage in our contemporary culture. Without values and habits that transcend selfish preoccupations and unjust practices of the marketplace, workers can be swayed by prevailing currents that fail to recognize the sacred responsibility of work to image God in creational and restorative activity, and serve others within a wider range of nested economic relationships. The TWSI represents a vital innovation in faith-work assessment that opens new pathways for faith-work integration research and practice by tapping affective, behavioral, and cognitive dimensions of integration, alongside broader theological and ethical considerations.

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Appendices

Appendix A: Structural Equation Model



Figure 1a. Unitary structure model.

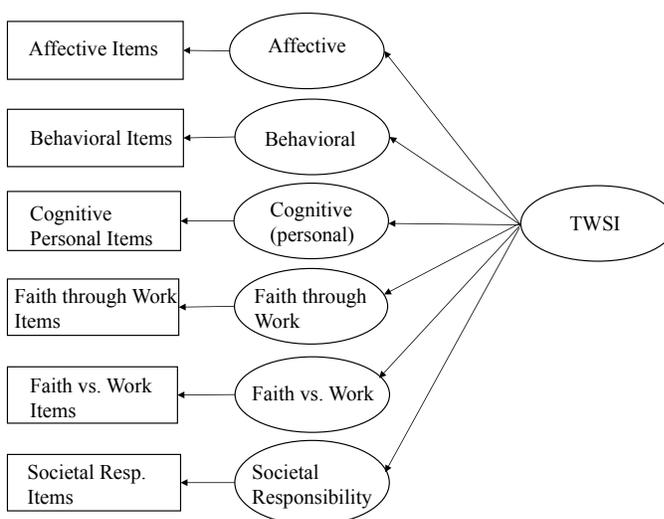


Figure 1b. Six factor, second-order reflective model.

Appendix A: Structural Equation Models

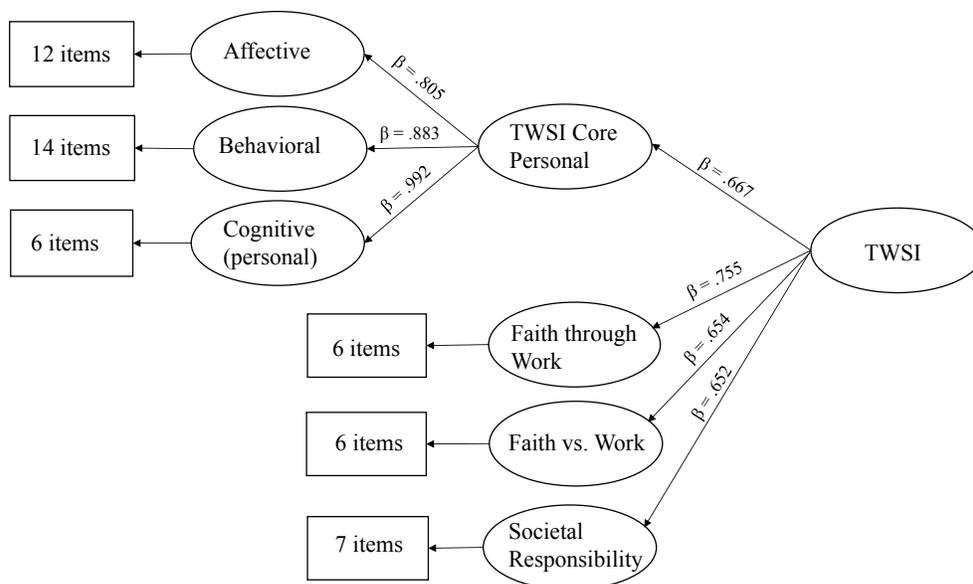


Figure 1c. Four factor, third-order best-fitting reflective model.

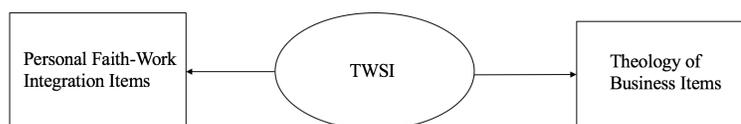


Figure 1d. Two factor, second-order reflective model.

Appendix B: Faith at Work Scale

Directions: Think about your current work and respond to each of the following statements. (1) never or infrequently, (2) seldom, (3) sometimes, (4) often, (5) always or frequently, (6) not applicable.

Dimension	Abbreviation	Complete Item Wording
Relationship	Aware	1. I sense God's presence while I work.
	Partnering	2. I view my work as partnering with God.
	Meaningful	3. I think of my work as having eternal significance.
	Integrated	4. I see connections between my worship and my work.
	Coping	5. My faith helps me deal with difficult work relationships.
Meaning	Called	6. I view my work as a mission from God.
	Equipped	7. I sense that God empowers me to do good things at work.
	Diligent	8. I pursue excellence in my work because of my faith.
	Growing	9. I believe God wants me to develop my abilities and talents at work.
Community	Accepting	10. I view my coworkers as being made in the image of God.
	Witnessing	
Holiness	Caring	11. My coworkers know I am a person of faith.
	Moral	12. I sacrificially love the people I work with.
Giving	Just	13. When I am with others and alone, I practice purity in my work habits.
	Stewarding	14. I view my work as part of God's plan to care for the needs of people.
		15. I view myself as a caretaker not an owner of my money, time and resources.

From Lynn, M. L., Naughton, M. J., & Vanderveen, S. (2009). Faith at work scale (FWS): Justification, development, and validation of a measure of Judaeo-Christian religion in the workplace. *Journal of Business Ethics*, 85, 227-249.

Appendix C: Transformative Work in Society Index (TWSI)

Note. Crossed-out items were eliminated by Cronbach alpha analyses in preparation for CFAs, convergent/discriminant and predictive validity analyses. Based on the CFAs conducted in this study, the best fitting model consisted of a four-factor reflective model.

Directions: Think about your current work and rate the extent to which you agree with each of the following statements. (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, (5) strongly agree, (6) not applicable.

TWSI Affective Items:

1. I experience joy in my work.
2. I experience God in the workplace as much as I do in a church.
3. I feel my work moves society closer to God's plan for the world.
4. My work is filled with meaning and purpose.
5. It is difficult to picture how my faith plays out at work.
6. I can confidently say that everything I do at work is done as though I am working directly for God.
7. I am proud of my organization because it delivers a worthwhile product and/or service.
8. I am spiritually thriving while I am at work.
9. I feel like I am serving society when I work.
10. I feel pride in the work I do in my organization.
11. I feel like I am meeting the needs of others through my work.
12. I cannot be ethical in my job because of the expectations placed on my work.
- ~~13. I sometimes feel guilty for just doing my job.~~
- ~~14. I get angry when my organization does not treat customers as they should be treated.~~
- ~~15. I feel like my work throws other aspects of my personal life out of balance.~~

TWSI Behavioral Items:

1. I pray for other people (e.g., colleagues and customers) throughout my workday.
2. I seek to serve others every day at work.
3. At work, I talk about my faith when invited to do so.
4. I engage in work that meets a need in the world.
5. I work hard to serve others through my work.
6. I apply my faith to problems at work.
7. I take personal responsibility for correcting injustices I see in my workplace.
8. I do all I can to be ethical in everything I do.
9. When work gets tough, I depend on God to get me through the day.
10. I pray about work decisions.
11. I work hard in my job as an expression of my faith.
12. I speak up at work for those who are not treated fairly.
13. I pursue excellence in all my work.
14. When wronged at work, I readily forgive others.

~~15. I do not work as hard as I should.~~

TWSI Cognitive (personal):

1. God guides me in my career.
2. My faith enlivens my job tasks (even mundane tasks) with meaning and significance.
3. God brings me creative ideas while I work.
4. I know I am serving God in the work I do.
5. God works through my employer to care for the needs of others.
6. I am working collaboratively with God when carrying out my work.

TWSI Faith through Work:

1. Business is one of the professions God uses to make the world a better place.
2. Business is a way to partner with God in God's ongoing creation.
3. Businesspeople are front-line ambassadors for achieving God's purposes in the world.
4. God is at work in the world through economic exchange.
5. Work is one of the best ways to join God in restoring that which is broken.
6. Work represents a vital opportunity to reflect God's character to others.

TWSI Faith vs. Work:

1. A life of faith is at odds with business.
2. In every economic exchange, there is always a winner and a loser.
3. It is almost impossible to live by Christian principles and run a financially successful business.
4. Business and Christian faith are naturally in conflict.
5. Career paths in business are less virtuous than career paths in other fields.
6. Business is not a helping profession.
- ~~7. A person cannot be truthful and do well in business.~~
- ~~8. The marketplace is an unforgiving environment.~~

TWSI Societal Responsibility:

1. A good business serves the larger community.
2. How jobs are designed is a moral issue.
3. How much you pay people for their work is a moral decision.
4. A good business creates meaningful work for others.
5. A good organization is an anchor in its community.
6. Good work serves the common good.
7. A good business pays attention to multiple bottom lines.
- ~~8. In business, protecting the environment is as important as making a profit.~~

From Yost, P., & Terrill, J. R. (2015). Do people bring their faith to work? Development of the faith, work and economics integration measure (pilot study). Unpublished manuscript.

Appendix D: Ethical Behavior Scale

Directions: Think about your personal work behavior and respond to the following statements as they apply to you. (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, (5) strongly agree, (6) not applicable.

1. I have the best interests of colleagues in mind
2. I make fair and balanced decisions
3. I can be trusted
4. I set an example of how to do things the right way
5. When making decisions, I ask 'what is the right thing to do?'

From Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97, 117-134.

Appendix E: Task and Contextual Self-Reported Performance

Directions: Think about your current work and respond to the following statements as they apply to you. (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, (5) strongly agree, (6) not applicable.

Task Performance

1. I always complete the duties specified in my job description.
2. I meet all the formal performance requirements for my job.
3. I fulfill all responsibilities required by my job.
4. I never neglect aspects of the job that I am obligated to perform.
5. I often fail to perform essential duties.

From Janssen, O., & Van Yperen, N. W. (2004). Employees' goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction. *The Academy of Management Journal*, 47, 368-384.

From Podsakoff, P. M., & Mackenzie, S. B. (1989). A second-generation measure of organizational citizenship behavior, Working paper. Bloomington, Indiana: Indiana University.

Directions: Think about your current work and respond to the following statements as they apply to you. (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, (5) strongly agree, (6) not applicable.

Contextual Performance

1. While performing my job, I look for challenging assignments.
2. While performing my job, I tackle difficult work assignments enthusiastically.
3. While performing my job, I voluntarily do more than the job requires.

From Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, 79, 475-480.

Appendix F-1: Turnover Intentions

Directions: Think about your current work and respond to the following statements as they apply to you. (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, (5) strongly agree, (6) not applicable.

1. The thought of leaving my job often crosses my mind.
2. I often consider finding a new job.
3. I often actively look for a new job.

From Mobley, W. H., Horner, S. O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology*, 63, 408-414.

Appendix F-2: Personal and Organizational Values Fit

Directions: Think about your current organization and respond to the following statements. (1) to a very little extent, (2) to a little extent, (3) to some extent, (4) to a great extent, (5) to a very great extent, (6) not applicable.

1. To what extent are the values of your organization similar to your own values?
2. To what extent does your personality match the personality or image of your organization?
3. To what extent is your organization a good match for you?

From Saks, A. M., & Ashforth, B. E. (1997). A longitudinal investigation of the relationships between job information sources, applicant perceptions of fit, and work outcomes. *Personnel Psychology*, 50, 395-426.

Appendix G: Faith Maturity Scale

Directions: Please rate the extent to the which the following statements are true for you. (1) never true, (2) rarely true, (3) true once in a while, (4) sometimes true, (5) often true, (6) almost always true, (7) always true, (8) not applicable.

1. I help others with their religious questions and struggles.
2. I seek out opportunities to help me grow spiritually.
3. I feel a deep sense of responsibility for reducing pain and suffering in the world.
4. I give significant portions of time and money to help other people.
5. I feel God's presence in my relationships with other people.
6. My life is filled with meaning and purpose.
7. I care a great deal about reducing poverty in the United States and throughout the world.
8. I try to apply my faith to political and social issues.
9. My life is committed to Jesus Christ.
10. I talk with other people about my faith.
11. I have a real sense that God is guiding me.
12. I am spiritually moved by the beauty of God's creation.

From Benson, P. L., Donahue, M. J., & Erickson, J. A. (1993). The faith maturity scale: Conceptualization, measurement, and empirical validation. In M. L. Lynn & D. D. Moberg (Eds.). *Research in the Social Scientific Study of Religion* (Vol. 5, pp. 1-26). Greenwich, CT: JAI Press.

Tables

Table 1
Skew and Kurtosis Scores before Cronbach's Alpha Analysis and Item Deletion were Performed to Modify Variables in the TWSI Dataset

Variable	<i>N</i>	Skew	Standardized Skew	Kurtosis	Standardized Kurtosis
Affective	405	-.55	-4.58	.43	1.79
Behavioral	405	-.39	-3.25	-.31	-1.29
TWSI Core Personal	405	-.83	-6.92	1.35	5.63
Faith through Work	405	-.70	-5.83	.91	3.79
Faith vs. Work	404	-.95	-7.92	1.10	4.58
Societal Responsibility	405	-.64	-5.33	1.32	5.50
Faith at Work (FWS)	405	-.80	-6.67	.48	2.00
Ethical Behavior	403	-.22	-1.83	-.78	-3.25
Task Performance	404	-.61	-5.08	.11	.46
Context Performance	402	-.49	-4.08	-.11	-.46
Turnover Intentions	401	.52	4.33	-.61	-2.54
Org-Person Values Fit	401	-.54	-4.50	-.19	-.79
Faith Maturity (FMS)	403	-.42	-3.50	.21	.88

Note. Standard error of skewness ranged from .121 to .122. Standard error of kurtosis ranged from .242 to .243.

Table 2
 Summary of Inter-Correlations, Internal Reliability, Means, and Standard Deviations for Mean Substitution Dataset

Variable	N	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age in Yrs.	404	45.6	12.7	-	.71**	.25**	.26**	.16**	.25**	.08	-.05	.04	.18**	.15**	-.01	.11*	-.14**	.14**	.09
2. Yrs. As Active Christian	403	32.1	13.4			.21**	.22**	.15**	.21**	.03	-.08	.07	.16**	.15**	.04	.08	-.08	.12*	.06
3. Affective	405	4.1	.54			.86	.62**	.67**	.87**	.40**	-.34**	.32**	.71**	.20**	.06	.29**	-.50**	.61**	.50**
4. Behavioral	405	4.1	.47				.84	.70**	.86**	.41**	-.25**	.28**	.77**	.32**	.19**	.40**	-.24**	.32**	.66**
5. Cognitive	405	4.2	.61					.85	.91**	.53**	-.24**	.32**	.81**	.17**	.04	.23**	-.29**	.34**	.63**
6. TWSI Core Personal	405	4.1	.48						.93	.51**	-.32**	.35**	.87**	.26**	.10*	.34**	-.39**	.48**	.68**
7. Faith thru Work	405	4.2	.62							.86	-.47**	.41**	.50**	.15**	.06	.21**	-.14**	.23**	.37**
8. Faith vs. Work	405	4.5	.53								.83	-.18**	-.26**	-.14**	-.05	-.18**	.31**	-.32**	-.18**
9. Societal Responsibility	405	4.4	.47									.78	.37**	.20**	.07	.16**	-.10*	.17**	.30**
10. Faith at Work Scale	405	4.1	.64										.93	.22**	.09	.24**	-.26**	.35**	.72**
11. Ethical Behavior	405	4.4	.40											.78	.48**	.43**	-.20**	.21**	.23**
12. Task Performance	405	4.3	.57												.81	.37**	-.13*	.06	.18**
13. Contextual Performance	405	4.2	.62													.78	-.21**	.28**	.26**
14. Turnover Intentions	405	2.4	1.10														.89	-.55**	-.18**
15. Org-Per Values Fit	405	3.8	.89															.88	.25**
16. Faith Maturity Scale	405	5.4	.79																.88

Note. * $p < .05$ and ** $p < .01$. Cronbach's alphas presented along diagonal.

Table 3

Observed Fit Indices and Cut-Off Values for Confirmatory Factor Analysis (CFA) Factors

Model Description	RMSEA	RMSEA Cut-off	CFI	CFI Cut-off
		X < .06		X > .95
Hypothesis 1a				
Pre-Modifications: Reflective Single-Factor	.095		.506	
Post-Modifications: Reflective Single-Factor	.084		.619	
Hypothesis 1b				
Pre-Modifications: Reflective Six-Factor Model	.071		.731	
Post-Modifications: Reflective Six-Factor Model	.060		.807	
Hypothesis 1c				
Pre-Modifications: Reflective Four-Factor Model	.069		.741	
Post-Modifications: Reflective Four-Factor Model	.058		.817	
Hypothesis 1d				
Pre-Modifications: Reflective Two-Factor Model	.087		.593	
Post-Modifications: Reflective Two-Factor Model	.077		.683	

Note. RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index.

Table 4

Modifications to Third-Order, Four-Factor Best-Fitting Reflective TWSI Model

Covariance	χ^2	<i>df</i>	<i>p</i>	Δp	$\Delta\chi^2$	CFI	ΔCF I	RMSE A	$\Delta RMSE$ A
e23-e21	3342.87	121	<.00	<.00	235.50	.76	.026	.066	.003
	7	6	1	1	1	7			
e41-e42	3167.82	121	<.00	<.00	175.05	.78	.019	.063	.003
	3	5	1	1	4	6			
e7-e12	3035.63	121	<.00	<.00	132.19	.80	.014	.061	.002
	2	4	1	1	1	0			
e5-e2	2955.70	121	<.00	<.00	79.923	.80	.009	.060	.001
	9	3	1	1	9	9			
e3-e36	2881.55	121	<.00	<.00	74.518	.81	.008	.058	.002
	1	2	1	1	7	7			

Note. Prior to any modification, model fit was not strong: (χ^2 [1217; *N* = 405] = 3578.378, *p* < .001, CFI = .741, and RMSEA = .069)

Table 5
Coefficient Paths, Standard Errors, Confidence Intervals for Best-Fitting, Four-Factor Model

Model Path	β	SE	p	90% CI Bias Corrected
TWSI Core Personal \leftarrow TWSI	.667	.047	.012	(.588, .745)
Affect \leftarrow TWSI Core Personal	.805	.048	.011	(.718, .873)
Cognitive \leftarrow TWSI Core Personal	.992	.023	.008	(.954, 1.029)
Behavior \leftarrow TWSI Core Personal	.883	.028	.009	(.832, .924)
Faith through Work \leftarrow TWSI	.755	.087	.007	(.591, .898)
Societal Responsibility \leftarrow TWSI	.652	.058	.006	(.552, .760)
Faith vs. Work \leftarrow TWSI	.654	.044	.003	(.588, .740)

Table 6
*Summary of Regression Analysis Predicting Ethical Behavior with TWSI
 above/beyond Control Variables*

Model and variable	B	SE	β	R^2	ΔR^2
Model 1				.026	.026**
Age	.002	.002	.074		
Active Years as Christian	.003	.002	.102		
Model 2				.074	.048**
TWSI Core Personal	.189	.042	.226**		
Model 3				.093	.018*
Faith Through Work	-.021	.040	-.033		
Faith vs. Work	-.048	.041	-.065		
Societal Responsibility	.114	.045	.136*		

Note. $N = 402$.

** $p < .01$. * $p < .05$.

Table 7
*Summary of Regression Analysis Predicting Ethical Behavior with TWSI
 above/beyond Control Variables and FWS*

Model and variable	<i>B</i>	<i>SE</i>	β	R^2	ΔR^2
Model 1				.026	.026**
Age	.002	.002	.074		
Active Years as Christian	.003	.002	.102		
Model 2				.064	.037**
Faith at Work Scale	.122	.031	.197**		
Model 3				.074	.011*
TWSI Core Personal	.177	.083	.212*		
Model 4				.093	.018*
Faith Through Work	-.021	.041	-.032		
Faith vs. Work	-.048	.041	-.064		
Societal Responsibility	.114	.045	.136*		

Note. $N = 402$.

** $p < .01$. * $p < .05$.

Table 8
*Summary of Regression Analysis Predicting Task Performance with TWSI
 above/beyond Control Variables*

Model and variable	<i>B</i>	<i>SE</i>	β	R^2	ΔR^2
Model 1				.003	.003
Age	-.003	.003	-.062		
Active Years as Christian	.003	.003	.080		
Model 2				.013	.009
TWSI Core Personal	.120	.062	.101		
Model 3				.014	.001
Faith Through Work	-.005	.060	-.005		
Faith vs. Work	-.021	.061	-.019		
Societal Responsibility	.042	.067	.035		

Note. $N = 402$.

Table 9
Summary of Regression Analysis Predicting Contextual Performance with TWSI
above/beyond Control Variables

Model and variable	<i>B</i>	<i>SE</i>	β	R^2	ΔR^2
Model 1				.013	.013
Age	.005	.003	.112		
Active Years as Christian	.000	.003	.001		
Model 2				.111	.098**
TWSI Core Personal	.423	.064	.324**		
Model 3				.119	.008
Faith Through Work	-.001	.062	-.001		
Faith vs. Work	-.093	.063	-.079		
Societal Responsibility	.055	.069	.042		

Note. $N = 402$.

** $p < .01$.

Table 10
Summary of Regression Analysis Predicting Task Performance with TWSI Behavior
above/beyond Control Variables

Model and variable	<i>B</i>	<i>SE</i>	β	R^2	ΔR^2
Model 1				.003	.003
Age	-.003	.003	-.062		
Active Years as Christian	.003	.003	.080		
Model 2				.041	.038**
TWSI Behavior	.244	.062	.201**		

Note. $N = 402$

** $p < .01$.

Table 11
Summary of Regression Analysis Predicting Contextual Performance with TWSI
Behavior above/beyond Control Variables

Model and variable	<i>B</i>	<i>SE</i>	β	R^2	ΔR^2
Model 1				.013	.013
Age	.005	.003	.112		
Active Years as Christian	.000	.003	.001		
Model 2				.152	.140**
TWSI Behavior	.513	.063	.387**		

Note. $N = 402$

** $p < .01$.

Table 12
*Summary of Regression Analysis Predicting Turnover Intentions with TWSI
 above/beyond Control Variables*

Model and variable	<i>B</i>	<i>SE</i>	β	<i>R</i> ²	ΔR^2
Model 1				.020	.020*
Age	-.014	.006	-.167*		
Active Years as Christian	.003	.006	.038		
Model 2				.157	.137**
TWSI Core Personal	-.879	.109	-.382**		
Model 3				.223	.066**
Faith Through Work	.361	.103	.204**		
Faith vs. Work	.576	.104	.279**		
Societal Responsibility	.023	.115	.010		

Note. *N* = 402.

** *p* < .01. * *p* < .05.

Table 13
*Summary of Regression Analysis Predicting Turnover Intentions with Interaction of
 Work, Faith, and Economics and Organization/Person Values Fit*

Model and variable	<i>B</i>	<i>SE</i>	β	<i>R</i> ²	ΔR^2
Model 1				.020	.020*
Age	-.014	.006	-.167*		
Active Years as Christian	.003	.006	.038		
Model 2				.362	.342**
TWSI Core Personal	-.472	.124	-.205**		
Faith thru Work	.274	.094	.155**		
Faith vs. Work	.382	.097	.185**		
Societal Responsibility	.039	.104	.017		
Org/Personal Values Fit	-.536	.058	-.435**		
Model 3				.370	.008
TWSI Core Personal X Org/Personal Values Fit	.158	.120	.680		
Faith thru Work X Org/Personal Values Fit	-.160	.105	-.702		
Faith vs. Work X Org/Personal Values Fit	-.133	.100	-.591		
Societal Responsibility X Org/Personal Values Fit	.029	.118	.119		

Note. *N* = 402.

** *p* < .01. * *p* < .05.

Table 14
Summary of Regression Analysis Predicting Faith Maturity with TWSI above/beyond Control Variables

Model and variable	<i>B</i>	<i>SE</i>	β	R^2	ΔR^2
Model 1				.008	.008
Age	.006	.004	.099		
Active Years as Christian	-.001	.004	-.013		
Model 2				.460	.452**
TWSI Core Personal	1.140	.062	.695**		
Model 3				.468	.007
Faith Through Work	.031	.061	.024		
Faith vs. Work	.089	.062	.060		
Societal Responsibility	.117	.068	.071		

Note. $N = 402$.

** $p < .01$.

Table 15
Summary of Regression Analysis Predicting Faith Maturity with TWSI above/beyond Control Variables and FWS

Model and variable	<i>B</i>	<i>SE</i>	β	R^2	ΔR^2
Model 1				.008	.008
Age	.006	.004	.099		
Active Years as Christian	-.001	.004	-.013		
Model 2				.516	.508**
Faith at Work Scale	.885	.043	.726**		
Model 3				.529	.012**
TWSI Core Personal	.375	.117	.229**		
Model 4				.531	.003
Faith Through Work	-.019	.057	-.015		
Faith vs. Work	.050	.058	.034		
Societal Responsibility	.069	.064	.042		

Note. $N = 402$.

** $p < .01$.