Developing an OD Intervention Metric System Using
Applied Theory Building Methodology: A Work/Life Intervention Example

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Abstract

This article proposes a metric system that illuminates the financial benefits of OD-type interventions, illustrated using work/life (w/l) interventions as a test of the model. The literature review was considered as one piece of the conceptual development phase of applied theory building research. The contribution of this new ROI system is fourfold: 1) it fills a gap in the literature by suggesting a holistic ROI framework for typically non-financial OD type interventions; 2) it is generated from an accepted applied theory building methodology; 3) it offers decision makers with ‘hard’ evidence on which to evaluate w/l interventions; and 4) it has the future potential to be expanded and used to evaluate the ROI for multiple types of OD interventions.
Developing an OD Intervention Metric System Using Applied Theory Building

Methodology: A Work/Life Intervention Example

Human resource development interventions allow organizations to maximize their human capital across the entire employment life cycle (Rao and Rothwell 2005). This employment life cycle perspective includes human capital components including acquisition, allocation, development, compensation, evaluation and conservation of employees. An effective life cycle system will create and sustain a competitive advantage (Barney, 1991; Kossek & Friede, 2006; Zula & Chermack, 2007) across the employment span, from hiring to retiring. Indeed, Kearns (2003) indicated that sustainable competitive advantage is only achieved through a “whole system strategy” of human resource activities (p. 28). Through this system, alignment allows organizations to match employees with desired knowledge, skills, abilities and motivation with positions designed to support the strategic business objectives (Torraco & Swanson, 2001).

Following Rao and Rothwell (2005) and Kerns (2003), this study adopts a systems view of human capital and organization development interventions. We adopt this view because we are interested in understanding, from a holistic perspective, how to evaluate OD interventions using a human capital framework with financial ROI metrics. A systems view, one of the three foundational theories of HRD (Swanson, 2001), suggests that a change in one sub unit (or department in an organization) will impact all other sub units in some way. A change in a ‘system’ has ripple effects throughout the entity (here, an organization) and we sought to understand how to first identify the ‘ripples’ of OD interventions, and then using human capital metrics try to measure the financial ROI of each ripple. Our thinking, based on our familiarity with the work/life balance domain, was that typical ROI frameworks may not be successfully
identifying all of the various and aggregated benefits that OD interventions may produce across the employment lifespan (as described above).

Towards this end, we posed the following research questions: 1) does a systemic ROI framework exist that can measure the full financial contributions of OD interventions? And, if not, we asked 2) can a systemic ROI framework, capable of measuring the full financial contribution of OD interventions, be developed using applied theory building research methods? The goal was to see if a framework existed, or could be developed, to allow organizations to attach numeric and/or monetary outcomes to the adoption of OD interventions in order to determine their impact on the key performance indicators of the organization (Holton & Naquin, 2001). Based on the preliminary results of the literature review, combined with our experiences in the field, we believed that the existing ROI frameworks may not be able to measure the full system contributions of OD interventions. And, we knew that financial metrics usually drive the decisions of key leaders when allocating resources. We were searching for a way to integrate financial metrics into the processes of designing, developing, and deploying W/L interventions so that decision makers would be better able to ‘see’ the comprehensive benefits to their organizations.

**Importance of Financial Metrics in HRD**

It is clear that human capital metrics are critical measurement tools beneficial at all levels of the organization (Fegley, 2006; Gates, 2004; Holton & Naquin, 2001). Senior executives utilize human capital metrics in creating accountability tools (e.g., scorecards, dashboards) for decision-making, problem solving, mapping business strategies, and determining the alignment of organization processes to achieve efficiency, effectiveness, and maximum firm performance (Becker, Huselid & Ulrich, 2001; Kaplan & Norton, 1996, 2006; Kossek & Friede, 2006).
Similarly, when human resource development professionals utilize human capital metrics, they often gain significant strategic leadership credibility. These HRD professionals use human capital metrics to document progress, uncover improvement and change opportunities, measure accomplishments, secure management support for proposed human resource interventions, and track the efficiency, effectiveness, and impact of various human capital processes (e.g., talent acquisition, staff rewards, and staff development) (Boudreau & Ramstad, 2003; Fegley, 2006; Holton & Naquin, 2001; Gates, 2003, 2004; Kane 1999, Sullivan, 2002, 2004).

The need for HRD to produce metrics is growing. Gates (2003) predicted that despite moderate support for human capital metrics in the past, there will be considerable interest and demand for metrics in the future. In fact, Fegley reported that an HR department’s inability to measure the effectiveness of strategic interventions through metrics and analytics was a primary factor in limiting HR from contributing to the organization’s bottom line. Given the increasing importance and attention metrics is receiving in all HR areas, HRD scholars and practitioners need to generate metrics germane to OD interventions to establish and validate the business case (e.g., Arthur & Cook, 2003, 2004).

Despite this growing need, calculating the full financial ROI of OD interventions has been elusive. For example, our research and practice in the work/life (w/l) balance domain has repeatedly illustrated to us that the benefits and financial returns of w/l types of OD interventions are often miscalculated (i.e., over-/under-estimated) resulting in undermining the perceived credibility of an O.D. intervention’s strategic importance among key executive leaders (Sullivan 2004). In fact, the lack of metric tools for examining and determining the ROI for w/l balance interventions is what initially led us to this study.
To address the problem described above, the goal of this paper is to identify a comprehensive, organization-wide ROI system that can be used by HRD and HRM professionals to measure the financial returns of OD interventions; specifically in this case, w/l interventions. To accomplish this goal, the paper is organized as follows: 1) overview of the w/l context; 2) literature review of the four streams used for this study—a) applied theory building, b) ROI theory and frameworks, c) work/life balance interventions, d) measuring w/l balance intervention outcomes; 3) a) the findings section describes a gap in the ROI literature that was identified through the iterative process of applied theory building, and b) presents a new ROI model application constructed by integrating Lynham’s (2002) and Storberg-Walker’s (2007) applied theory building processes. The fourth section of the paper tests the new model on work/life balance interventions in order to demonstrate the face validity of the new model. Finally, the fifth section provides conclusions and implications for future research and for extending the model into other OD intervention domains.

Setting the W/L Context

While considered progressive and innovative, and viewed as a core concern among management, work/life interventions have rarely been measured, integrated, or aligned with the strategic business objectives of most organizations (Axel, 1996; Christensen, 1997; Christensen, 1998; Christensen, 2006; Fegley, 2006; Galinsky & Johnson, 1998; Kossek & Friede, 2006). As an OD intervention strategy, a number of work/life researchers have noted that discussions about work/life interventions should be reframed by presenting work/life interventions as more than a luxurious perk, and instead, articulate how they become robust business tools strategically contributing to an organization’s competitive advantage (e.g., Arthur & Cook, 2003, 2004;
Cascio, 2006; Christensen, 1997; Cummings & Worley, 2005; Halpern & Murphy, 2005; Kane, 1999, Perry-Smith & Blum, 2000; Pfeffer, 1994).

Work/life interventions are policies, programs, practices and benefits that are intentionally designed to promote healthy integration, balance, enrichment, and facilitation in the interface between the domains of work and life, while also, alleviating or ameliorating the bidirectional stressful conflicts and tensions between the work and life domains (Lobel & Kossek, 1996; Morris & Madsen, 2007). Accordingly, as an OD intervention, work/life interventions enable individuals to positively experience greater and more optimal work/life situations (e.g., balance versus conflict) enabling them to unleash levels of human expertise for maximized levels of performance.

Similar to the accountability demands being imposed upon the broader HRD discipline (e.g., Holton & Naquin, 2001; Swanson, 2001; Torrao, 2001), within the work/life scholarship domain, colleagues have argued for the needed development of a “business case” that demonstrates the value-added benefits for organizations that are responsive to their employees who are attempting to integrate professional (i.e., work) and personal (i.e., family or life) demands (e.g., Friedman, 1991; Pitt-Catsouphes & Googins, 2005; Zula & Chermack, 2007). As with other HRD interventions, the development of a “business case” regarding work/life interventions involves numerically demonstrating the economic costs and/or benefits of a particular organizational decision and is an important step in ensuring organization-wide support (e.g., Galinsky & Johnson, 1998; Halpern & Murphy, 2005; Sullivan, 2002). As part of a broader human capital business strategy linkage, work/life scholars have noted that an integrated approach of work/life interventions are good for the health and well-being of employees and their families, as well as good for the health and well-being of the employer’s bottom line—a
win-win situation (Berg, Kalleberg, & Applebaum, 2003; Friedman, Christensen, & DeGroot, 1998; Halpern & Murphy, 2005; Rosenbloom, 2005). Kossek and Lambert (2005) have suggested that organizations are more likely to change their structures and implement work/life interventions if hard evidence of the outcomes of the business case and the strategic value of work/life interventions is demonstrated. According to Bond, Galinsky, Kim and Brownfield (2005), 46% of employers cite the “cost” of work-family interventions as an obstacle toward their implementation. However, when work/life interventions have been adopted, Galinsky and Bond’s (1998) study found that 46% of employers perceived a positive return on their investments in flexible work arrangements; 42% a positive return on leave programs; and 21% a positive return on elder care programs.

Phillips (2005) considers the lack of appropriate human capital metrics and the understanding of what could be measured as a major barrier to work/life intervention implementation. Phillips states: “more important, they [organization executives] fail to recognize the connection between those measures and the success of the organization; or if a particular program or project is implemented to improve a particular measure, how to develop accountability around that project or program” (p. 6). Supporting Phillips’ assertions, a 2003 survey of 646 organizations (as cited in The Return, 2004) conducted by Mellon Financial Corporation found that while over 70% of employers believe that work/life programs enhance recruitment efforts, raise morale and create competitive advantage for the organization, only 23% have human capital metrics to measure the financial impact of work/life programs. Similarly, Fegley (2006) reported that only 23% of organizations “frequently” used metrics or analytics with work/life programs. In summary, the literature has suggested that work/life interventions are
perceived as effective in addressing the needs of employees and their employers. However, efforts to build and establish the business case for work/life interventions are needed.

**Literature Review**

This section is organized along the four literature streams identified earlier, namely applied theory building, ROI, w/l balance interventions, and measuring w/l balance intervention outcomes. However, the real work of searching for a systemic ROI framework (or model) was iterative and non-linear. This research benefited from using disciplined imagination (Weick, 1989) to apply ROI frameworks to w/l balance interventions.

As described in Storberg-Walker (2007), the mental gymnastics of identifying, developing, and testing concepts is a creative process that does not transfer easily into written form. This is important to understand because this article has a beginning, middle, and end that is artificially created in order to meet acceptable scholarship guidelines. In reality, the back and forth struggle to identify a comprehensive framework relevant for formulating and applying metrics for calculating the ROI of w/l interventions is what generate the new framework. Then, reflecting on the creation of the new framework led towards a post-hoc understanding that what really happened was applied theory building research. This strategy linked a problem in practice (no comprehensive ROI model for w/l interventions) to a new solution based on theoretical research (the new application of an ROI framework). This literature review section describes the key conceptual issues and that, upon reflection was applied to theory building research.

**Literature Stream 1: Applied Theory Building Research**

A post-hoc analysis by the third author of the process undertaken in this study suggested that the first two authors actually completed the conceptual development phase of applied theory building research (Lynham, 2002). This phase has been described as the most complex and
challenging research phase for building applied theory (Storberg-Walker, 2007). Different processes for completing this phase have been identified in the literature (Storberg-Walker & Chermack, 2007), but there is a general consensus that the phase will produce a statement or model that describes key concepts (or variables) and how they are related to each other.

For this study, discussions and manuscript reviews with the first two authors revealed that the authors intuitively followed four specific steps for conceptual development as identified by Storberg-Walker (2007). First, the authors immersed themselves in the literature of the phenomenon (e.g., measuring the ROI of w/l interventions); second, the authors determined research paradigm and related preliminary design issues; third, the authors mentally integrated two different research streams; and fourth, the authors identified the key concepts for their new model that would address the gap found in the literature.

The model that was generated from the above cognitive activities was then applied to a w/l balance template to assess the degree to which the new model met the measurement criteria determined as necessary by the literature. The findings of this conceptual (i.e., not empirical) test are presented in a subsequent section, and the implications for future research and practice are provided for further testing of the model on different types of OD interventions.

It is important to note that only upon reflection and questioning did the authors understand their process and problem solving as applied theory building research. This does not negate or minimize the ‘quality’ of the theory building research in any regard. In fact, this scenario illustrates how pervasive actual applied theory building research is in the HRD discipline. Many scholars just do not name the work as such. Serendipitously, the authors had occasion to describe the work to a theorist, and this new interpretation of the work emerged.
Going forward, the model created in this study will be operationalized, refined, continually tested and applied, and the virtuous cycle of applied theory building research will continue.

Literature Stream 2: ROI Theories, Models, and Frameworks

We conducted an extensive review on the ROI literature in order to identify the key categories, computational methods, concepts or components involved in ROI calculations. Clearly, metrics are the *sine qua non* of the business world. Metric goodness requires the development of measures that are psychometrically sound (i.e., reliable, valid) (Carmines & Zeller, 1979). Metrics that are psychometrically sound are characterized as credible (e.g., perceived authoritative or believable), meaningful (e.g., possessing managerial value), legitimate (e.g., perceived fairness and openness), accurate (e.g., perceived as correct), and considered strategically valuable by the users (e.g., decision-makers, evaluators of performance) (Becker, Huselid, & Ulrich, 2001; Burkholder, 2007; Holton & Naquin, 2001; Huselid, Becker, Beatty, 2005). In terms of reliability, metrics should provide data that is consistent, stable, and repeatable (Carmines & Zeller). In terms of validity, metrics should reflect the full scope and breadth of properties associated with the measured phenomenon (i.e., content validity), represent the construct it purports to measure (i.e., construct validity), demonstrate the extent of agreement with results of other metrics or measures being captured at the same time (i.e., concurrent validity), and/or demonstrate the extent the metric can predict future results (i.e., predictive validity) (Becker, Huselid, & Ulrich; Phillips, 1997; Carmines & Zeller).

Generally accepted accounting categories/levels of volume/quantity, cost, income, time, quality and stakeholder reaction as applied to performance, learning, and change, computational methods (i.e., rate, ratio, composition and indices) and an almost infinite variety of possibilities for contextually “cutting” or cross-sections of the data (see Figure 1) (Morris & McMillan, 2005)
are used in creating good metrics. Categories/levels, computational methods, and contextual cuts provide vital information useful for describing attributes and assessing relationships (e.g., strategic causal linkages) between constructs. According to Huselid, Becker, and Ulrich (2001), “Good measurement requires an understanding of and expertise in measuring levels and relationships” (p. 112). While the foundation of a good metric system is measurement of attributes, relationships that measure hypothesized causality (i.e., change in “x” causes “y”) are the goal for making decisions and assessing performance. In measuring causality, level of analysis (e.g., individual versus organization) and isolating the effects of the key variables are critical to providing managerial value confidence (Becker, Huselid, & Ulrich; Huselid, Becker, & Beatty; Phillips, 1997).
In terms of accounting categories, *cost* is formally defined as a measure of resource sacrifice (e.g., time, money) incurred to obtain a benefit or service (Flamholtz, 1999). Fitz-Enz (2000) describes cost as a direct measure guaranteed to get the attention of an organization’s management team. *Time* is a measure of speed that is sufficient enough to accomplish a given task. With the abundance of technology available, work is expected to be performed faster, and organizations are expected to have quicker response times. Fitz-Enz (2000) maintains that organizations that efficiently perform faster than their competition achieve a differentiating competitive advantage. *Volume* is a measure of output, tangible or intangible. Volume is traditionally measured in units produced, number of incidents, or in frequency of events. *Income* is a top-line measure of revenue or profit that is received as the result of normal business activity (Sullivan, 2004). *Quality* is a measurement of people, processes and systems to ensure that predetermined standards are met (Fitz-Enz, 2000). Quality measurements are often manifested in units of error, returns, and reworks. And finally, *stakeholder reaction* is the response of the organization’s constituent group(s) or customers. Measures of stakeholder reaction are found internally (e.g., satisfaction, engagement) and externally (e.g., market share price).

In terms of computation methods, *rate* is the proportion of one or more parts to the whole. Rate is traditionally expressed as a percentage or frequency. *Ratio* is the proportion of one number to the other and is often expressed as a fraction. *Composition* is the classification of the whole into its parts, with a percentage of the whole allocated to each part. Finally, an *index* is the weighted combination of distinct data into one number relative to a scale or defined anchor. These four basic methods or formulas can be used by organizations to calculate and compare measures across work/life processes (e.g., Huselid, Becker & Beaty, 2005; Phillips & Phillips, 2005).
Finally, metrics are subject to an almost infinite number of cross-sectional analysis possibilities. Such possibilities provide organizations with additional data manageability. The data can be sectioned in any number of combinations, depending upon the constituent group the organization wishes to analyze. Some options for cross-sectional analysis are (1) by organization structure/division, (e.g., department, location, product-line); (2) socio-demographics (e.g., age, gender, ethnicity/race, education level, language preference); (3) employment status (e.g., union/non-union, full-time, part-time); (4) job-type (e.g., exempt or non-exempt, management or line staff); and (5) longevity or tenure (e.g., seniority level, time in position, time with organization).

Selection of the ROI frameworks for this study. Building on the comprehensive literature review above, we identified two potential frameworks that could provide a systems perspective from which to assess the ROI of work/life interventions. The frameworks selected were Fitz-enz (2001; Fitz-enz & Davison, 2002) and Flamholtz (1999). These cost accounting frameworks were selected based upon their noted contributions to the ROI domain, and both are well-referenced in the scholarly as well as practitioner literatures for their work in determining the economic value add and return on investment of HR practices (e.g., Hyland & Jackson, 2006). For example, Fitz-enz is widely regarded as a pioneering thought leader and award-winning author on research involving human capital measurement and metrics. To illustrate, he has published over 220 scholarly articles, book chapters and reports, as well as 8 books. Fitz-enz is the only two-time winner of the Society for Human Resource Management (SHRM) Book of the Year Award for Human Value Management (1991) and The ROI of Human Capital: Measuring the Economic Value of Employee Performance (2001). Over thirty years ago, Fitz-enz founded the Saratoga Institute, which publishes the largest database on human capital metrics and
intelligence. Through the work of Fitz-enz, researchers and practitioners have been given the necessary tools and methods for accurately quantifying and calculating the value-added contributions of an organization’s human capital (e.g., 2001; 2002).

Flamholtz (1999) through his innovative work in the area of human resource accounting, was also relevant to our efforts based on its noted contributions in the scholarly and practitioner literatures. Human resource accounting (HRA) is a framework that provides the process of creating concepts and accounting method tools for treating people’s intelligence, skills, talents, and behavioral attributes as organizational investments and assets. The primary premise of HRA is that human resource data (i.e., skills expertise, knowledge expertise, experience expertise) can be identified and measured through the recruitment, selection, hiring, training, and development processes and converted to monetary and economic value—the currency of business (Flamholtz, 1999).

Comparison of the two frameworks. Building their respective works on the core foundational theory of economic theory (Becker, 1964), both Fitz-enz and Flamholtz have contended that HR builds partnership and leadership credibility when it is able to demonstrate valuable and tangible ROI linkages to the organization’s business objectives (e.g., performance, productivity, services) and bottom line (e.g., profitability). HR builds this credibility through measurement systems that assist organizational management plans, decision-making, and control, in order to capitalize on the effective and efficient utilization of human capital resources (Fitz-enz & Davison, 2002; Flamholtz, 1999).

As a basis for our efforts to create a holistic OD intervention metric system framework that could capture the varied contributions of w/l balance interventions, we sought to compare and contrast the works of Fitz-enz and Flamholtz to explore similarities and differences between
their respective framework approaches. Through the lens of our knowledge and experience in the work/life balance area, our intentions were to determine if the Fitz-enz and Flamholtz framework models would be satisfactorily adequate to accommodate our own metric system needs.

Our compare and contrast review suggested that the Fitz-enz and Flamholtz frameworks would need to be slightly refined. As separate models, our review found that neither framework alone would fully capture the varied contributions of w/l balance interventions. Two issues arose in our review that exposed the limitations of each model. First, while both framework models provided similar individual guidance to our framework building efforts (i.e., similar model elements) (e.g., acquisition, compensation, evaluation), neither were comprehensive or holistic enough to fully measure the varied benefits and contributions of w/l interventions as identified in the w/l literature. For example, employee citizenship and discretionary behaviors have been demonstrated to arise from w/l interventions, and they have been demonstrated to contribute towards improved employee and firm performance (Lambert, 2000). However, because the Flamholtz and Fitz-enz models were designed for broader HR applications, we needed a more specialized framework to capture the w/l contributions identified in the existing literature. Also, because neither the Flamholz nor Fitz-enz models alone seemed to provide us with a way to capture these contributions, we combined these models to take advantage of their unique contributions, as well as, extended them to accommodate the specialized framework needs as identified in the w/l literature.

Second, while both Fitz-enz and Flamholtz provided instructions and formula-based tools for creating metric systems (i.e., Fitz-enz provided a more extensive and detailed array of metrics), both cost accounting framework approaches primarily detailed ways and examples to measure and estimate the costs, not revenues, associated with human resource functions and
activities. To illustrate through embedded evidence, in speaking of HRA, Flamholtz noted: “It involves measuring the costs incurred by business firms and other organizations to recruit, select, hire, train, and develop human assets.” (preface, xii)

It is important to acknowledge that both frameworks considered human capital as assets to be optimized, rather than expenses to be minimized. However, as cost accounting models, our review suggested they presented a more limited and traditional view of HR functions and activities which reflects a cost-center or asset depreciation mindset. Our observation of these earlier works is not intended to be a criticism. Instead, the observation is more likely the result of a necessary development phase in the evolution of HRA with the field initially needing to establish itself with valid cost accounting methods. Now that HR cost accounting methods have been established as credible, in contrast to this traditional cost-center approach, the next HRA evolutionary phase has arrived with more contemporary ROI approaches emphasizing the need to view investments (e.g., expenditures) in HR functions and activities (e.g., acquisition, allocation, development) as promoting revenue-generation or profit-center capabilities (Hyland & Jackson, 2006; Phillips, 2005; Sullivan, 2004) and ultimately driving organizational competitive advantage (Becker, Huselid, & Ulrich, 2001). As earlier foreshadowing, even Flamholtz (1999) noted that the ultimate goal of human resource management activities (e.g., acquisition, allocation, development) was to “contribute value of an enterprise by transforming raw human inputs into valuable human outputs.” (p.12)

Thus, we have sought fill the gaps we found by slightly extending and refining the Fitz- enz and Flamholtz frameworks through the addition of elements (e.g., citizenship behaviors) and metric calculation considerations (e.g., revenue generation).
Literature Stream 3: W/L Balance Interventions

Our review of the literature has indicated that a large variety of work/life interventions exist. To illustrate, a recent survey by the Society for Human Resource Management (Fegley, 2007) provided a listing of 257 employee benefits which are often offered to employees as single or bundled policies, programs, practices and interventions. According to Perry-Smith and Blum (2000) and Christensen (2006), w/l interventions that are strategically bundled are more effective than single offerings in strategically influencing and driving the financial success of the enterprise (Christensen, 2006; Perry-Smith & Blum, 2000). According to the 2007 Benefits survey conducted by SHRM, Corporate America spends 20% of an employee’s annual salary on legally mandated benefits and 18% on voluntary benefits (i.e., designed to fill gaps in benefit offerings).

Consistent with family and career development theories like those of family development theory (Duvall, 1971), life span/life space theory (Super, 1980) and work adjustment theory (Dawis & Lofquist, 1984), numerous intervention categories have also been offered. For example, utilizing a life cycle approach, Wallen (2002) suggested that work/life interventions could be grouped into the broad categories of time (e.g., flex-time/flex-schedule, family-related leave for sickness or school functions, paid time off), financial assistance (e.g., credit unions, tuition reimbursement programs, flexible spending accounts), programs and services (e.g., work/family training workshops, EAP, wellness/fitness programs, on-site vaccination programs), policies (e.g., telecommuting, FMLA), and community-based programs (e.g., on-or-near child-care sites, elder-care resource and referral program).

Regardless of intervention type, offering, or category, the review of the literature suggested that w/l interventions are most effective when six key characteristics have been met
(Morris, 2008). The characteristics are 1) availability, 2) awareness, 3) accessibility, and 4) affordability. When these four characteristics are met, the 5) utilization and 6) satisfaction of work/life interventions by employees are optimized. When the first four characteristics are not met, the positive return of the intervention is minimized in terms of utilization and satisfaction.

The first two characteristics of successful w/l interventions are availability and awareness. The availability or presence and awareness of work/life interventions is central to, but does not guarantee, the creation of an effective, family friendly work context (Kossek & Friede, 2006; O’Donnell, 2002; Pitt-Catsouphes, 1999). Just making available some w/l interventions provides little relief from work/life pressures unless organizations also help manage the overall work demands of their employees by redesigning job expectations and providing more decision-making autonomy (Fredriksen-Goldsen & Scharlach, 2001; Hackman, 1977; Halpern & Murphy, 2005; Theorell & Karasek, 1996). And just making things available does not guarantee employees are aware they exist. Pitt-Catsouphes noted, “Employees have only a vague awareness of work/life policies and programs despite concerted efforts to provide accessible information…” (p. 67). Awareness strategies include “a variety of communication dissemination and information transfer activities that are intended to enhance the knowledge levels of individuals” (O’Donnell, p. 166) and will foster understanding and usage of the benefit(s). According to Prottas, Thompson, Kopelman, and Jahn (2000), the accuracy of knowledge in employee perceptions about w/l interventions attenuates the relationship between practices as reported by organizations and employee attitudes, and as a result, organizations must effectively communicate their existence as well as reduce the time and efforts employees must exert in learning about intervention availability.
The third characteristic is **accessibility**. Work/life interventions have the greatest potential for impact when the work/life resource is geographically located near- or on-site, the work/life resource schedules (e.g., daycare) are conducive to employee work schedules, eligibility for participation is inclusive and evenly distributed ameliorating resentment, etc. (Batt & Valcour, 2003; Kossek & Friede, 2006; Rosenbloom, 2005). The fourth characteristic of successful w/l interventions is **affordability**. Work/life interventions must be consistent with the employee’s ability to exchange resources (e.g., time, energy, money, relational) to access and utilize the intervention (Cantor, et al., 2001; Connelly, Degraff, & Willis, 2004). As both a psychological and economic construct, lack of affordability occurs when the work/life intervention is perceived by the employee as “too expensive” or, because the work culture isn’t supportive (e.g., compensation level is insufficient to secure adequate child care; “my supervisor doesn’t care and my career will be threatened if I utilize this resource”) (e.g., Arthur & Cook, 2003, 2004; Drago, et al., 2001; Eaton, 2003; Thompson, Beauvis, & Lyness, 1999).

Once the first four characteristics of successful w/l interventions have been addressed, employee utilization and satisfaction becomes the next hurdle for positive ROI. An organization can offer the richest work/life benefit package imaginable, but unless employees are aware of what is being offered to them and perceive them as useful, the benefits are useless (Eaton, 2003; Kossek & Friede, 2006). In a survey by Watts and Woodall (2005), 35% of employees felt they were not getting enough information about the compensation and benefit programs offered by their employer and 19% of employees felt the communication was completely ineffective. This lack of awareness results in lower utilization of and satisfaction with organization benefit programs. Additionally, even when well-structured policies/programs were in place, the level of
perceived usability was decreased if employees believed their careers would be damaged by utilizing the benefit(s) (Arthur & Cook, 2003, 2004).

Regarding utilization, according to Creed and Scully (1999) and Lambert (1999), a suite or bundle of work/life interventions are most frequently utilized and appreciated by employees when they are perceived as instrumentally valuable (i.e., economic benefits to employee or organization) and/or symbolically valuable (i.e., perceptions/attitudes of organization’s commitment to social responsibility). Interventions that fall short of these expectations will not be utilized (Creed & Scully; Lambert). Regarding satisfaction, work/life interventions should provide a level of coverage to adequately or minimally meet the breadth, scope and range of perceived demands of the employee in juggling work/life stressors (Grandey, 2001; Eaton, 2003; Kossek & Friede, 2006). Satisfaction is a subjective measure formed in the mind of the employee about the value-added contribution of the work/life intervention in meeting personal and/or professional needs. Metric creation focuses upon the development of strategic individual and organizational measures assessing availability, awareness, affordability, utilization, and satisfaction of work/life interventions.

In summary, our review of the w/l intervention literature suggested that a wide variety of w/l interventions exist which are designed to that foster employee balance and integration, while also assisting employees in adjusting to, ameliorating and/or alleviating stressors associated with juggling work and life demands across the work/family life cycle (Kossek & Friede, 2006; Morris & Madsen, 2007; Wallace, 1997; Wallen, 2002). Regardless of interventions being used, they can be offered to employees as single benefits or bundled benefits (Perry-Smith & Blum, 2000). Further, the strategic effectiveness of w/l interventions is enhanced for organizations when the intervention is implemented to address key business problems (e.g., reducing
absenteeism that undermines employee productivity), and for employees when the intervention addresses a key family-related problem (e.g., reducing family conflict stemming from needing emergency childcare for a sick child). In turn, the driving forces for gaining strategic effectiveness stems from the satisfaction and utilization of w/l interventions that embody the characteristics of successful w/l interventions, namely availability, awareness, accessibility, and affordability to employees (Morris, 2008).

**Literature Stream 4: Measuring W/L Balance Intervention Outcomes**

Building on the research of Kossek and Grace (1990), Lobel and Faught (1996) offered four useful approaches for measuring organizational outcomes of w/l balance interventions. The four approaches are: (1) the **human cost approach** which focuses on cost-reduction through savings associated with reduced costs in labor like retention, tardiness, absenteeism; (2) the **human investment approach** which examines the outcomes influenced by support systems provided by the organization to enhance recruitment, employee performance and morale; (3) the **stakeholder approach** which attempts to monitor the gained benefits (e.g., corporate image, improved attitudes, satisfaction levels) experienced and reported by internal (e.g., employees, management, executives) and external (e.g., customers, shareholders, regulatory agencies) stakeholders; (4) and the **strategy approach** which determines how well intervention interventions drive the organization’s ability to align and move forward with key business interventions and objectives. Each of these four approaches are arguably relevant for assessing OD interventions, but within the work/life context, a number of researchers have examined work/life interventions using these approaches (e.g., Cascio, 2000; Konrad & Mangel, 2000; Litchfield, 1999; Mirvis & Graney, 1999). Furthermore, although not typically used in a work/life context, the strategic approach relies upon metrics and has been described as a driver of
human resource interventions by Becker, Huselid and Ulrich (2001), Huselid, Becker and Beaty (2005), Swanson and Holton (2001), Torraco and Swanson (2001), and Lambert (1999), among others.

Consistent with these four different approaches, a holistic set of metrics relevant for measuring the effectiveness, efficiency and impact of OD interventions should include measurement tools such as cost-reduction measures (e.g., cost/benefit and breakeven analyses), value-added measures (e.g., ROI, productivity), internal and external stakeholder measures (e.g., balanced scorecard, net present value, internal rate of return), and metrics (e.g., payback) that measure outcomes and drivers of strategic interventions and objectives through leading (i.e., future performance) and lagging (i.e., past performance) indicators (Cohen & Trompeter, 1999; Kaplan & Norton, 1996; Swanson & Holton, 2001). We contend that demonstrating the business case for any OD intervention, including work/life interventions, requires being strategic using a broad and extensive array of metrics that are integratively applied across each component of the employment life cycle.

Findings

This section presents a new ROI framework designed to address the needs for metric systems capable of illuminating, in a holistic way, a comprehensive picture of the financial returns of OD type interventions. A holistic ROI model fills an existing gap in the w/l literature by bringing together all of the value-added pieces of a larger puzzle that previously have been examined in a piecemeal fashion. Our impression of the ROI and w/l intervention literature indicated that previous studies have primarily focused on the impact of w/l interventions on separate components (i.e., puzzle pieces) of the human capital employment life cycle (e.g., w/l intervention impact on recruitment). While these efforts have been important to our
understanding of the benefits of w/l interventions on larger organizational goals like firm performance, ROI calculations that only use separate puzzle pieces of the employment life cycle do not capture the fully loaded ROI impact of the w/l intervention. Thus, it is our contention that a holistic ROI model that integrates all of the puzzle pieces in one model would enable researchers and practitioners to calculate in a summative way the full benefits of the w/l intervention as the intervention’s benefit permeates and impacts each component of the organization’s human capital system. For example, rather than exploring how a w/l intervention impacts recruitment alone, a holistic approach would examine the combined impact of a w/l intervention on multiple human capital components (e.g., recruitment, selection, development, retention). Once calculated, this aggregated total would be used to examine how w/l initiatives drive firm-level goals like profits, market share, etc. The most effective and credible way to capture this ROI information would be through metrics that were relevant to each human capital component. Once each component’s contribution has been tabulated, a holistic ROI score could be generated (i.e., reflecting how the w/l intervention impacted the entire HR system) and used to predict firm-level outcomes (e.g., profits).

Introducing the ODHCAS: Organization Development Human Capital Accounting System

In our attempts to answer the research questions 1) does a systemic ROI framework exist that can measure the full financial contributions of OD interventions? And, if not, 2) can a systemic ROI framework, capable of measuring the full financial contribution of OD interventions, be developed using applied theory building research methods?, we generated the ODHCAS, which is visually depicted in Figure 2. The ODHCAS is a nine-element model. The model depicts Human Capital Strategic Planning as an input mechanism and Firm Performance as the output mechanism. The center for the model illustrates the key employee life cycle human
capital functions (e.g., talent acquisition) that interface with the selected OD intervention, in our case—w/l interventions, to transform inputs to outputs.

The model illuminates several key considerations. First, one of the primary benefits of the ODHCAS is that it can and should be customized to include the human capital value-added drivers (i.e., core people-related capabilities or assets) and enablers (i.e., reinforcer of learning, performance, change) that strategically influence an organization’s value chain (i.e., what kind of value, how that value is created) of business goals/objectives (Becker, Huselid, & Ulrich, 2001; Torraco & Swanson, 2001).

Second, it is important to note that we placed the OD intervention (i.e., w/l interventions) in the center of the nine-element model with key linkages to strategic planning, important human capital activities involving the employment life cycle (e.g., acquisition), and firm performance. The center placement suggests that the benefits and/or costs of OD interventions can be system-
wide. As such, HR professionals should examine how their interventions potentially impact human capital efforts throughout the entire human capital system of support. As the ODHCAS illustrates, we concur with the litany of research emphasizing the importance of the strategic planning function incorporating an integrated system of internal human capital processes (e.g., acquisition) as the basis for organizational decision-making in driving firm performance (e.g., Christensen, 2006; Fitz-enz & Davison, 2002; Gates, 2004; Goodstein, Nolan, & Pfeiffer, 1993; Quigley, 1994; Phillips, 2005; Robert, 2005; Swanson, Lynham, Ruona, & Provo, 1998).

Third, the ODHCAS illustrates that strategic planning will ultimately influence and drive firm performance through a system of transformational processes of inputs to outputs, and as a result, a feedback loop exists between firm performance and strategic planning. As with any feedback loop, the ODHCAS has a feedback mechanism for monitoring change, communicating needed improvements, assessing satisfaction, and recording performance outcomes as a result of the OD intervention’s (e.g., w/l interventions) influence on the entire human capital system.

**ODHCAS Model Applied to the W/L Context**

This section presents the nine-element ODHCAS model as applied to the w/l context. Each of the nine sections describes how w/l interventions contribute towards the specific human capital element of the model, and offers detailed analysis of how the ROI can be generated within that element. As described earlier, each of the nine elements of the ODHCAS model represents components of the employment life cycle (e.g., acquisition, allocation, development). For each component of the employment life cycle, w/l literature has been identified to illustrate how w/l interventions impact this life cycle component. Furthermore, to illustrate how the previously presented multilevel model for creating metrics works (see Figure 1), the Appendix
provides an illustrative assortment of work/life metrics that have been created to measure work/life interventions using the ODHCAS model.

*Human Capital Strategic Planning: Getting the Right Work/life Intervention Plan*

The ODHCAS model contributes towards human capital strategic planning efforts by formulating metrics that would demonstrate how work/life interventions impact strategic planning efforts in modeling and forecasting how the right suite of interventions maximize human capital processes/actions in order to achieve the organization’s key performance indicators of firm performance. A central tenet of OD strategic planning is that human capital is key to value creation within organizations. According to Sullivan (2004), being “strategic” means being “future focused,” and thus, strategic planning regarding w/l should be about developing a verbal description of the mental picture or vision of a business strategy by incorporating work/life interventions that are connected to the driving force(s), or DNA, for what the organization is destined to look like financially in the future.

Assuming an effective and clear business strategy is in place, the goal of OD strategic planning involving work/life interventions should be to articulate, in concrete terms, how these interventions promote employee effectiveness and cost efficiency (i.e., tactical HR), as well as drive revenue creation (i.e., strategic HR) in the human resource function in supporting the overall business strategy (Christensen, 2006; Gates, 2004; Kearns, 2003; Kossek & Friede, 2006; Sullivan, 2004; Torraco & Swanson, 2001). OD strategic planning around work/life interventions examines how organizations move beyond program/policy administration to how organizations can strategically implement work/life interventions to competitively perform their work better, faster, cheaper, safer and easier (O’Donnell, 2002).
The adoption, development, and implementation of work/life interventions is a natural by-product of OD strategic planning and includes a careful consideration of external (e.g., government, competitors) and internal (e.g., firm structure, employee demographics, management perceptions, policy impact) normative, mimetic, and coercive pressures (Arthur, 2003; Dychtwald, Erickson & Morison, 2006; Glass & Estes, 1997; Goodstein, 1995; Ingram and Simons, 1995; Konrad & Mangel, 2000; Kossek & Friede, 2006; Martinez & Dacin, 1999; Meyer & Rowan, 1977; Milliken, Martins & Morgan, 1998; Osterman, 1995; Perry-Smith & Blum, 2000). Lobel (1999) maintains that work/life interventions support a “standards of excellence” approach to measuring OD strategic planning that encourages organizations to think beyond current activities to future possibilities (p. 39).

**Talent Acquisition: Getting the Right Workforce through Work/Life Interventions**

The ODHCAS contributes towards talent acquisition efforts by formulating metrics that would demonstrate how work/life interventions strategically impact business objectives through organizational efforts in attracting, recruiting, selecting, and hiring the right talent.

The 2006-2007 SHRM Workplace Forecast (Schramm, 2006) listed the increased demand by employees for work/life balance as the fourth most important trend facing organizations in the future. A number of researchers have suggested that an individual’s desire to balance work and family makes recruitment, selection and hiring more challenging (Cascio & Young, 2005; Fitz-enz & Davison, 2002). McKinsey and Company’s *The War for Talent* (as cited in Greenblatt, 2002) found that work/life factors account for 67 percent of work characteristics rated as absolutely essential for attracting and recruiting talent. Arthur and Cook (2003) have noted that the size and quality of the applicant pool of highly skilled individuals will be increased due to the adoption of work/family interventions, and will ultimately provide
greater productivity, profits and competitive advantage to the organization. Perry-Smith and Blum (2000) suggested that work/life interventions provide signals to current and prospective employees that allow them to make judgments or draw conclusions about the values and philosophies of the organization.

A host of work/life researchers have examined the relationship of applicant pool size and its relationship to an organization with strong work/life interventions (e.g., Greenhaus & Parasuraman, 1999; Grover & Crooker, 1995; Konrad & Mangel, 2000; Kossek & Nichol, 1992; Lobel, Googins, & Bankert, 1999; Lobel & Kossek, 1996; Sutton & Noe, 2005). Cascio (2000) has reported that organizations identified as a “work/life best place to work” receive twice the number of applications as their competitors. Similarly, Bond, et al., (2005) have noted that 47% of employers institute work/life interventions for recruitment purposes.

Talent Allocation: Getting Talent in the Right Assignment through Work/Life Interventions

The ODHCAS contributes towards talent allocation efforts by formulating metrics that would demonstrate how work/life interventions strategically assist the organization in staffing and placement of talent in the right job and job environment/design in order to impact the firm’s key business objectives. Ideally, talent allocation involves staffing assignments that rightly place qualified talent into assigned jobs in such a way that fully utilizes individual talent capacity and expertise (e.g., knowledge, skills), maximizes individual and organizational productivity, and promotes employee citizenship behaviors through individual and job satisfaction, all of which provide a greater return for the organization (Fitz-enz & Davison, 2002; Flamholtz, 1999; Swanson, 1996).

Allocation may include customization of job assignments, reflecting managerial responsiveness to a dual agenda (i.e., the maximization of benefit for both the organization and
employee) (Bailyn & Fletcher, 1997; Lautsch, Kossek & Eaton, 2004). The criticality of allocation was shown in Buckingham and Clifton’s (2001) study, which found only 20% of employees felt they were working in jobs that utilized their strengths. In regards to increasing productivity, the literature on w/l interventions indicates that an organization’s talent allocation efforts are embedded in and enhanced through talent acquisition because an enlarged talent pool of highly qualified applicants resulting in better employee/job assignment fit. When the person/role assignment fit is better, learning curves and training time are drastically reduced. Additionally, highly qualified talent attracted by organizations offering work/life interventions that allows them to focus on allocating critical talent to key business impact areas in order to yield higher rates of productivity (Sullivan, 2002). Allocation should be driven by the organization’s desire to align resources with the business strategy (Torraco & Swanson, 2001).

Talent Citizenship: Getting Talent to have the Right Attitude and Behavior through Work/Life Interventions

The ODHCAS contributes towards talent citizenship efforts by formulating metrics that would demonstrate how work/life interventions strategically assist the organization in fostering the right attitudes, morale, and in promoting discretionary behaviors that impact key business objectives.

As an OD intervention, work/life interventions can also be used to promote organizational citizenship behaviors and discretionary effort among employees (e.g., Konrad & Mangel, 2000; Lambert, 1999, 2000). Researchers from the Families and Work Institute have demonstrated that organizations with a more supportive work/life agenda have employees who are more vested in the organization’s success (Galinsky & Bond, 1998). Work/life interventions foster the establishment, development and fulfillment of a psychological contract between
employee and employer. This contract is based on the trust (e.g., affective attachment and relational commitment) the employee feels towards the organization, ultimately creating a high-commitment work system (Berg, et al., 2003; Hall, 1976; Lockwood, 2003; Mowday, Porter, & Steers, 1982; Rousseau & Parks, 1992). Robinson and Morrison (1995) contend that these behaviors will continue unless the psychological contract is violated and trust is compromised.

*Talent Development: Getting the Right Strengths through Work/Life Interventions*

The ODHCAS contributes towards talent development efforts by formulating metrics that would demonstrate how work/life interventions strategically assist the organization in maximizing the expected value of the employee through development-related efforts like training, leadership development, coaching, mentoring, career development, etc. Developing talent for the purpose of unleashing human expertise for the purposes of improving performance through the expansion of knowledge, skills, and experiences is critical to an organization’s efforts to establish and build competitive advantage (Swanson & Holton, 1999; Swanson & Holton, 2001). According to Drucker (2002), in a competitive knowledge economy, “developing talent is business’ most important task…” (p. 71). Sullivan (2002) describes a learning organization as “one that truly values the personal and professional growth of its employees” (p. 102). Fitz-enz (2000) maintained that training value goes beyond cost payback, “if you spend time and money helping people learn and grow, you make a deposit in their loyalty bank” (p. 99). Similar to the core assumptions of HRD, Fitz-enz further suggested that providing training shows employees that the organization cares about not just performance, but also about their personal and professional goals.

In this same vein, organizations with a supportive work/life climate can provide training programs not only to educate on the interventions the organization provides (e.g., higher order
skill training, communication skills, time management), but to also promote life management training such as flexible retirement planning (e.g., Berg et al., 2003; Dychtwald, Erickson, & Morison, 2006). Research from the HRD discipline examining the influence of work/life interventions on dimensions of learning, performance, and change is relatively new (Morris & Madsen, 2007), but should be an essential research and practice consideration with regards to the systemic influence of work/life interventions on learning, performance and change at the individual, group, organization, and community levels (Crooker, Smith, & Tabak, 2002; Madsen, 2003; Parasuraman & Greenhaus, 1997).

Talent Compensation, Recognition & Rewards: Getting the Right Mix through Work/Life Interventions

The ODHCAS contributes towards talent compensation, recognition, and rewards efforts by formulating metrics that would demonstrate how work/life interventions strategically assist the organization in achieving business goals by providing an effective/efficient total rewards mix of pay, benefits, and recognition to equitably meet the economic and psychological needs of the employee.

Compensation and rewards includes the pay, promotion and benefits (defined as indirect compensation, financial or otherwise, that provides added psychological safety, promotes goodwill and rewards employment) that are provided to employees in exchange for the work performed (Fitz-enz, 2000; Flamholtz, 1999; Martocchio, 2006; Milkovich & Newman, 2005; Rosenbloom, 2005 Sprague & Cheddie, 2002). Competitive compensation practices result in greater motivation yielding higher levels of performance, customer service, and product development activities (Sullivan, 2002, 2004). Furthermore, Sullivan maintains that employees
who perceive inadequate pay and benefits will perform their job at as little as 85% of personal capabilities.

In the work/life context, Wallen (2002) noted that many employers prefer to offer lucrative work/life benefits because they are more flexible and more economical to the organization than paying above-average salaries/wages. While traditionally considered financial, rewards can also be non-financial benefits such as performance recognition, workplace/work-time flexibility, and supervisor support. Research by Grover and Crooker (1995) and Total Rewards (2005) found that work/life benefits that are offered, but not mandatory, symbolically communicate the value of employees to the organization, and these benefits are a primary factor in position acceptance.

*Talent Performance Management, Appraisal, and Evaluation: Getting the Right Performance through Work/Life Interventions*

The ODHCAS contributes towards talent performance management, appraisal, and evaluation efforts by formulating metrics that would demonstrate how work/life interventions strategically assist the organization in achieving business goals by assessing and evaluating the productivity, readiness, promotability, and performance of employees.

Herling (2001) has noted that competitive advantage is achieved through high performers demonstrating expertise (i.e., optimal/exceptional performance), not competence (i.e., satisfactory performance). Performance management systems gauge and monitor these levels of performance activity.

Within the work/life context, Galinsky and Bond (1998) contended that when work and life are in conflict, negative spillover from home resulted in diminished job performance, and ultimately lower performance evaluations. Similarly, Lambert, et al. (1993) found employees
who accessed and utilized work/life programs had higher performance evaluations than those who didn’t. According to Vincola (1998), to maximize employee performance, organizations should develop a talent appraisal program that integrates work/life philosophy with business mission and goals. Vincola suggested this is accomplished by incorporating competency assessment into the traditional performance management system. She contended that competency assessment will shift the performance management system from one of control to commitment. Arthur (1994) defines this shift as moving away from a rigid, rule-driven environment to one that uses the psychological contract to guide behavior and activities. As an OD intervention, Galinsky and Bond (1998) suggested supervisors must be trained on managing work/life issues in completing performance appraisals to positively reinforce the psychological contract.

*Talent Conservation: Keeping the Right Capacity/Expertise through Work/Life Interventions*

The ODHCAS contributes towards talent conservation efforts by formulating metrics that would demonstrate how work/life interventions strategically assist the organization in preventing deterioration and capacity erosion of its talent and thereby sustain the competitive edge of its talent.

Flamholtz (1999) contended talent conservation is the process of maintaining, preserving, and safeguarding the maximum capacity of human capital. According to Flamholtz, “unless systematically monitored and maintained, the capabilities of human resources may deteriorate….and the organization will have to incur either retraining costs or replacement costs to rebuild its human capabilities” (p. 16). According to Watkins (2001), “if people are assets, anything that diminishes those assets will diminish the organization’s expected realizable value.” (p. 82). Similarly, Swanson and Holton (2001) have offered the following caution: “An
organization system that is mature, works well, and yields great returns will not necessarily remain in that state. A variety of forces cause organizations to deteriorate or disappear.” (p. 268).

Major threats to the deterioration of talent conservation that have been studied in the work/life field include: absenteeism, turnover, tardiness, security, distraction, depression, and health-related stress (e.g., Cascio, 2000; Friedman, 1991; Grandey & Cropanzano, 1999; Greenhaus, Parasuraman, & Collins, 2001; Konrad & Mangel, 2000; Rau & Hyland, 2002; Schaufeli & Enzmann, 1998). These threats generate considerable aggregate and individual costs to employers and employees. Estimated aggregate yearly costs in lost productivity and medical expenses for employers due to these issues exceed $300 billion dollars (Schwartz, 2004). In fact, regarding the effects of care-giving on productivity, a recent study by the MetLife Mature Marketing Institute (2006) estimated that the total estimated cost for all full-time, employed caregivers exceeded $33 billion dollars. The 2007 Towers Perrin Health Care Cost survey estimated U.S. employers spend an average of $8,748 dollars per employee in health care expenses.

As work/life concerns, Arthur (1994) studied the cumulative effects of some of these threats to talent conservation in control versus commitment environments and found that threats like turnover were considerably lowered in high commitment environments due to increased cohesion and commitment among employees. These results are supported in the affective commitment literature, which suggests that organizations that offer OD interventions that assist employees in experiencing an affective relationship with the organization have higher engagement and loyalty, lower absenteeism, and express fewer intentions to quit or leave the organization voluntarily (Berg, et al., 2003; Bernthal, 2004; BlessingWhite, 2005; Greenhaus & Parasuraman, 1999; Grover & Crooker, 1995; Konrad & Mangel, 2000; Lobel, 1999; Lobel &
Kossek, 1996; Sutton & Noe, 2005). Christensen (1997) has noted that organizations that proactively include work-life strategies as part of their business strategy generate considerable trust and commitment among employees leading to a greater willingness to contribute to the organization’s ability to compete in the global economy. As a deterrent to the deterioration of conservation, companies offering work/life interventions have considered the investment costs involved in recruitment and training and are unwilling to have those investments lost from their organizations or transferred to another competitor (Cascio & Young 2005). To illustrate, Berger and Waldfogel (2004) found the availability and utilization of a maternity leave program was a significant retention tool in 80% of cases.

**Firm Performance: Getting the Right Outcomes through Work/Life Interventions**

The ODHCAS contributes towards firm performance efforts by formulating metrics that would demonstrate how work/life interventions strategically assist the organization in driving key performance indicators like profits, increased market share, public image, or other mission critical outputs of the organization.

According to Church and McMahan (1996), most early OD efforts failed to assess critical organizational-level impacts (i.e., competitive advantage, efficiency, and effectiveness). The effect of work/life interventions on firm performance is one of the most understudied aspects in work/life literature—possibly because many work/life interventions have not been incorporated into the business strategy of the organization. While a great deal of focus has been made on the cost efficiency effects of work/life interventions on diversity, productivity, absenteeism, turnover, etc., much less has been done on financial indicators of corporate income, such as earnings per share, return on equity, profits and stock prices (e.g., Cascio, 2006; Catalyst, 2004).
The addition of firm performance in the framework is supported in studies conducted by Arthur (2003), Arthur and Cook (2004), and Perry-Smith and Blum (2000) who found significant, positive relationships between the announcement and presence of work/life interventions and share price, organizational performance and profit-sales growth. The goal of firm performance is to actualize the business strategy by maximizing organizational profits, and ultimately the wealth of the stakeholders, internal and external (Gitman, 2003). Inclusion of firm performance is necessary in establishing the business case for OD interventions, because the worth of all HR interventions should be judged on the organization results to which they are intended to contribute (Kearns, 2003). As Kearns has noted: “If there is no value added then the (HR) activity in question, by definition, has added no value” (p. 115).

Early forays into this area of work/life research consist of an examination of organizational outcomes in regards to profits, market share, organization performance, share price and competitive advantage (Abowd, Milkovich & Hannon, 1990; Arthur, 2003; Arthur & Cook, 2003, 2004; Barney, 1991; Lieberman & Montgomery, 1998; Perry-Smith & Blum, 2000). Key outcomes include a significant positive relationship between work/life announcements and share price, particularly when the announcement is a pioneering step in the industry (Arthur & Cook, 2004). Additionally, Perry-Smith and Blum found that “bundling” complementary work/life interventions provided competitive advantage to organizations. In an empirical study, Cascio and Young (2005) evaluated profitability, productivity and total return on common stock of publicly held Working Mother 100 Best Employers over a seven-year period (1995 – 2002). They found that these organizations consistently outperformed the benchmark indexes provided by Standard & Poor’s 500 and the Russell 3000 by 120%.

Conclusions and Implications
A number of implications exist for HRD theory, research and practice. Concerning theory, it is our assumption that the gateway to the creation of sound HRD strategies and interventions should be good theory (e.g., Grandey & Cropanzano, 1999; Kearns, 2003; Swanson & Holton, 2001; Wallston & Armstrong, 2002). This study represents an example of applied theory building research. Others can turn to this study to better understand the nuts and bolts of HRD theory building.

Utilizing a strategic human resource management framework and human capital theory, we have interwoven a category of OD intervention (e.g., work/life interventions) illustrating how such an intervention can be holistically integrated into the entire human resource framework to strategically contribute to the organization’s business strategy. This holistic approach is in contrast to existing literature where an issue is examined only under one or two strategic intervention outcomes, such as increasing retention or recruitment (e.g., Arthur & Cook, 2003, 2004; Axel, 1996; Friedman, 1991; Halpern & Murphy, 2005; Kane, 1999; Perry-Smith & Blum, 2000; Pfeffer, 1994). We consider this holistic approach imperative because economic value is created and sustained when every part of the HR process works well together (e.g., Becker, 1993; Zula & Chermack, 2007). We have illustrated how a holistic system and interconnected network of metrics, created under the guiding principles described in the ODHCAS, provides a strategic framework for gauging “how well” OD interventions like w/l interventions create value throughout the entire HR system (Kearns, 2003; Pfeffer, 1997).

Consistent with systems theory (Swanson & Holton, 2001), within this framework, learning and performance changes within the entire HR system, as opposed to separate and isolated changes can be measured (e.g., Kearns). The ODHCAS exemplifies the importance of these systemic relationships integrating OD interventions (e.g., work/life interventions)
throughout all aspects of strategic human resource management framework. Kearns noted that organizations only get the true value of their human resource investments when all parts of the system are included and coordinated in such a way that they work well together. It is our contention that the credibility of the business-case for OD interventions rests upon valid theory, consideration of the complete HR system, and communication about results instead of activities, presented in a language business decision-makers understand—return on investment.

In terms of research, the guiding principles of HRD (Swanson & Holton, 2001) support Kossek (1987) and Kossek and Friede’s (2006) contentions that research involving metrics is beneficial for building the business case for OD interventions (e.g., work/life interventions). Some might criticize the usage of metrics as being dehumanizing and too mechanistic (e.g., Sullivan, 2004). In contrast, we believe like other HRD scholars (e.g., Holton & Naquin, 2001; Huselid, Becker, & Ulrich, 2001; Torraco & Swanson, 2001) that metrics created at both the individual and organizational level using holistic frameworks like the ODHCAS provides HRD researchers with objective, credible leading and lagging measures (i.e., hard evidence) to test hypotheses and isolate key causal processes. This would enable scholars and practitioners to examine where interventions (alone or in bundles) within the employment life cycle (e.g., talent acquisition versus talent development) create value and ultimately contribute to the performance level of the organization. Bucknall and Wei (2006) contended that metrics allow organizations to see the presence, magnitude, and direction of value on the business outcome. However, before examining these relationships, researchers should cautiously select the key performance indicator at the firm level. For example, selecting stock value as the sole metric measurement can result in invalid conclusions due to the volatility of the metric and its innate inability to truly reflect the
value of human capital (Kearns, 2003). Clearly, issues of metric validity are of key importance in this line of research.

Concerning HRD practice, this paper provides a set of instructional tools for developing organization specific metric systems of strategic and managerial value (e.g., Becker, Huselid, & Ulrich, 2001). We contend that these tools have a wide range of application for all HRD interventions, and are therefore, not restricted to only OD interventions like work/life interventions. Instead, the framework espoused in this paper can be used for measuring the strategic impact of any human resource development intervention. In fact, to test this assertion, the authors of this paper have already begun exploring how organizations measure the strategic significance of work/life interventions on strategic organizational outcomes (e.g., profitability, productivity) (Morris, McMillan, & Heames, 2008). These ideas warrant further research exploration from HRD scholars and practitioners. For example, how do OD interventions like wellness or safety programs impact the organization’s business strategy in terms of strategic human resource functions (Watkins, 2001)? As Swanson and Holton (2001) and others (e.g., Kearns, 2003) have noted, organizations claiming to possess HR strategies need to be able measure the value contribution of those strategies to the mission and goals of the business.

As previously noted, human capital metrics are utilized to create accountability tools for decision-making, problem solving, mapping business strategies and determining the alignment of organization processes to achieve efficiency, effectiveness, and maximize firm performance (Becker, Huselid & Ulrich, 2001; Gates 2003, 2004; Holton & Naquin, 2001; Kaplan & Norton, 1996; Zula & Chermack, 2007). Our hope is that HRD researchers and scholar/practitioners studying OD interventions, like those associated with the work/life domain, will develop and utilize metrics to conduct research, document progress, measure accomplishment, secure
management support and track the efficiency and effectiveness of their intervention. As practitioners are experiencing greater accountability for the financial outcomes of human resource functions, as well as a desire to become “leaders” in business, they must create, learn, and use the credible measures of business—metrics (e.g., Holton & Naquin; Sullivan, 2002; Torraco & Swanson, 2001).

In conclusion, given their increasing importance, OD researchers and scholar practitioners need expertise to further develop human capital metrics to establish and validate the business case for investments being made in their (Arthur & Cook, 2003, 2004; Swanson & Holton, 2001). Our purpose has been to offer business tools demonstrating how OD interventions (e.g., work/life interventions) can be both a cost-reduction measure as well as a value-added contributor to the business strategy and firm performance. For too long, many HRD efforts (Zula & Chermack, 2007) have attempted to make a business case relying upon soft evidence (e.g., anecdotes, inferential speculation). Metric systems like the one proposed in this paper move the HRD discipline forward by speaking in the language that business understands—return on investment.

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Appendix

Illustrating the ODHCAS using the Multilevel Model for Creating W/L Metrics*

<table>
<thead>
<tr>
<th>ODHCAS Elements</th>
<th>Volume</th>
<th>Cost</th>
<th>Income</th>
<th>Time</th>
<th>Quality</th>
<th>Stakeholder Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Capital Strategic Planning</td>
<td># W/L Suggestions from Workforce</td>
<td>$ W/L Program to total spent on HR Budget</td>
<td>Total Market Share</td>
<td>Mgmt Hours in W/L Planning to HR Planning</td>
<td>Perception of W/L Benefits</td>
<td># of Industry Benchmarking W/L Programs</td>
</tr>
<tr>
<td>Talent Acquisition</td>
<td># Applicants per-Job Offer</td>
<td>Reduction $ in Recruiter Fees</td>
<td>Recruitment as % of Revenue</td>
<td>Time-to-Fill</td>
<td>Diversity of Applicant Pool</td>
<td>Mgmt Satisfied w/ Hires</td>
</tr>
<tr>
<td>Talent Allocation</td>
<td># Transfer Requests due to unmet W/L issues</td>
<td>Orientation Cost Reduction due to W/L Programs</td>
<td>Increased Production Income</td>
<td>Non-productive Time due to W/L issues</td>
<td>Scrap Rate Reduction due to FTE focus due to W/L Programs</td>
<td>Employee P-E Satisfaction</td>
</tr>
<tr>
<td>Talent Citizenship</td>
<td># FTE Volunteers contributing personal time to firm’s community-based programs</td>
<td>W/L Intervention Cost-Sharing Agreement with FTEs</td>
<td>FTE charitable contributions to sick-bank for critically ill employees and colleagues.</td>
<td># Discretionary Hours attributable to W/L Interventions</td>
<td>FTE Fitness Center Utilization %</td>
<td>Level of FTE Morale attributable to W/L Interventions</td>
</tr>
<tr>
<td>Talent Development</td>
<td># W/L Training Programs for Managers and FTE</td>
<td>Total W/L Program Cost</td>
<td>W/L Profit Center External Consulting Revenue</td>
<td>W/L Training % of Total Training</td>
<td>Number of Accidents Prevented due to W/L</td>
<td>Workforce Reports of Usefulness of W/L Programs</td>
</tr>
<tr>
<td>Talent Compensation, Recognition, Rewards</td>
<td># Sign-On Bonuses Retained as Substitute to W/L Programs</td>
<td>W/L Benefits as % of Revenue</td>
<td>Active W/L FTE Compensation as % of Revenue</td>
<td>Monthly Flextime Hours</td>
<td>Mgmt Salary tied to W/L</td>
<td>Pay Equity Ratio by Gender</td>
</tr>
<tr>
<td>Talent Conservation</td>
<td>Voluntary Turnover Rate versus Involuntary Turnover Rate due to W/L</td>
<td>Voluntary Turnover Cost due to unmet W/L issues</td>
<td>Sales Rates of Telecommuters to non-Telecommuters</td>
<td>Retention rates of “A” Level talent due to W/L Programs</td>
<td>Error Ratios among consumers of W/L programs</td>
<td>Level of Employee Pride due to W/L Programs</td>
</tr>
<tr>
<td>Talent Performance Management, Appraisal, and Evaluation</td>
<td>% W/L Utilization</td>
<td>Manpower Costs</td>
<td>Level of Discretionary &amp; Value-Added Contributions</td>
<td>Completion Time</td>
<td>Appraisal Consensus</td>
<td>Perceptions of Employee Fairness with W/L Programs</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>Workforce Awareness of W/L Initiatives</td>
<td>W/L Benefits as % of Total Operations Cost</td>
<td>Improved level of Telecommuting Productivity</td>
<td>First-to-Market</td>
<td># Competitors Benchmarking W/L Interventions</td>
<td># of W/L National Recognitions</td>
</tr>
</tbody>
</table>

(McMillan & Morris, 2006; Morris & McMillan, 2005).

*(Author’s Note: The metrics listed above are for illustrative purposes only and not intended to be used as an organizational work/life scorecard or dashboard. Additionally, the metrics included reflect examples of computational methods (i.e., ratio) and can be configured to address contextual cuts (e.g., by gender, by department) as described in Figures 1 and 2.)