Contemporary Occupational Health Psychology

Global Perspectives on Research and Practice, Volume 1

Edited by Jonathan Houdmont and Stavroula Leka
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To those whose progress through the ranks of the occupational health psychology research group at the Institute of Work, Health, & Organisations preceded mine: thank you for the introduction to the discipline, friendship, and support.

Jonathan

To all those who strive to make work what it should be: meaningful and inspiring.

Stavroula
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Welcome to the first volume of *Contemporary occupational health psychology: Global perspectives on research and practice*. This groundbreaking biennial series is published by Wiley-Blackwell on behalf of the European Academy of Occupational Health Psychology and the Society for Occupational Health Psychology. We would like to use this foreword to introduce the series and share with you its aspirations.

*Contemporary occupational health psychology* has the following goals:

1. To publish authoritative, “stand-alone,” reviews in the field of occupational health psychology.
2. To publish new empirical research, where it is appropriate to do so, to enable contributors to advance the field in ways that are not typically possible within the confines of the traditional journal article. This applies particularly to developments in professional practice, education, and training.
3. To attract contributions from an international constituency of experts which, in time, become citation classics.
4. To include topics of contemporary relevance to the interests and activities of occupational health psychology researchers, practitioners, educators, and students.

As such, each chapter:

1. contains a comprehensive state-of-the-art review of the literature in a topic area.
2. where appropriate, reports on new empirical data generated by the author.
3. places an emphasis on the organizational application of theory and evidence with a view towards bridging the science/practitioner divide.
4. is written in an accessible style.

In sum, the series aspires to nothing less than to emerge as *the* major reference work of choice for those with an active interest in occupational health psychology.
To achieve these goals the editors are assisted by an Advisory Board. As the series develops, this distinguished group of individuals will play a pivotal role in ensuring that it lives up to expectations and publishes contributions of the highest quality and contemporary relevance. The Advisory Board comprises:

- Tom Cox, University of Nottingham, U.K.
- Michiel Kompier, Radboud University Nijmegen, the Netherlands
- Tage Kristensen, Task-Consult, Denmark
- Jose Maria Peiro, University of Valencia, Spain
- Steve Sauter, National Institute for Occupational Safety and Health, USA
- Lois Tetrick, George Mason University, USA
- Töres Theorell, Karolinska Institute, Sweden

As it grows, the series will address a wide range of contemporary topics that concern the application of psychological principles and practices to occupational health challenges and opportunities. Contributions are evaluated on the following criteria:

1. contemporary relevance of the topic to the activities of researchers, educators, practitioners, and students
2. appropriateness and strength of the literature review
3. conceptual strength
4. strength of methodology and data analysis (where a contribution contains new empirical data)
5. quality of writing
6. implications for professional practice.

The focus on topics that are of contemporary relevance ensures that the series remains a useful guide to developments in the field of occupational health psychology. Authors interested in contributing to the series should contact the first editor at jonathan.houdmont@nottingham.ac.uk to discuss ideas. We intend to commission approximately 15 chapters for publication in the second volume that will be launched at the 2012 conference of the European Academy of Occupational Health Psychology. We look forward to reviewing your excellent work.

Finally, a few words of thanks. We would like to express our deep gratitude to Darren Reed, Commissioning Editor for Psychology Books at Wiley-Blackwell, who, from the start, has demonstrated nothing but enthusiasm and support for our desire to take occupational health psychology to a wide audience. Thanks are also due to the European Academy of Occupational Health Psychology and the Society for Occupational Health Psychology; without the endorsement of these representative bodies this project would not have come into being. We are also grateful to Tom Cox, Director of the Institute of Work, Health & Organisations at the University of Nottingham. When presented with the idea for this series Tom immediately perceived value in the endeavor, and has supported us unrelentingly in its gestation.

Jonathan Houdmont and Stavroula Leka
1

A Multilevel Model of Economic Stress and Employee Well-Being

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We write this chapter in the midst of a global economic crisis; international markets and financial systems have been disrupted and many companies have struggled, not always with successful outcomes. For example, a recent U.S. Bureau of Labor Statistics report (Bureau of Labor Statistics, 2009c) indicated that in the first quarter of 2009, 3,489 mass layoff events resulted in some 550,000 workers being separated from their jobs for at least 31 days, the most since the BLS began tracking these numbers in 1996. Many other workers now hold positions that are below their desired level of pay, responsibility, or hours of work; still others have given up searching for employment. As of May 2009, the U.S. labor force included 2.2 million marginally attached workers, a 177% increase from the previous year, and 9.1 million workers in involuntary part-time positions, an increase of 4.4 million between December 2007 and May 2009. Including such underemployed, marginally attached, and discouraged workers yields a May 2009 unemployment rate of 16.4% for the United States (BLS, 2009a).

Of course, such trends are not limited to the United States; the International Labour Organization (ILO, 2009) predicted that 2009 would be the worst year for global job creation since it began keeping records in 1991. As many as 1.5 to 1.6 billion workers are in vulnerable employment worldwide, or up to 52.8 percent of the global workforce (ibid.). These workers are less likely to earn an adequate income, more likely to experience labor rights violations, and less able to protect themselves from abuse (ILO, 2009; U.K. Department of Trade and Industry, 2006). The financial crisis also has placed additional downward pressure on wages and the ILO estimates that between 38% and 45% of the world’s workforce would meet the definition of “working poor” (i.e., people who earn less than US$2 per day) by the end of 2009. Worse, as many as 200 million workers, mostly in developing countries, could be pushed into extreme poverty (US$1.25, or less, per day). The downward trends of 2008–2009 seem unlikely to be permanent and, even as we write, there are some initial signs of economic recovery. However, international markets seem unlikely to
reach the peaks of 2007 any time soon, and many important economic actors, such as banks and auto companies, seem likely to struggle well into the future.

Occupational Health Psychology (OHP) researchers have long recognized the threat of job insecurity, unemployment, and under-employment to employee well-being. Other important economic stress concerns have received less attention, such as workers’ current financial status (including both household income and debt), their worries about financial issues, and, particularly in the United States, the large share of medical care costs borne by workers. One important challenge for researchers is that economic stressors result from interactions between multiple systems operating at different levels of analysis. Therefore, the central purpose of this chapter is to develop a multilevel model that describes the relationship between economic stress and well-being. We will extend a model of economic stress proposed by Probst (2005a), distinguishing individual, organizational, and macroeconomic antecedents of employees’ economic stress. We also suggest several moderators of the effects of these antecedents and propose a multilevel framework for conceptualizing economic stress interventions.

Defining Economic Stress

Probst (2005a) drew from prior work by Voydanoff (1990) to offer a general definition of economic stress as “aspects of economic life that are potential stressors for employees and their families and consists of both objective and subjective components reflecting the employment and income dimensions of the worker-earner role” (p. 268). Probst distinguished employment-related and income-related stressors, both of which may be further divided into objective and subjective stressors. Thus, unemployment (i.e., actual loss of one’s job) is an objective employment stressor whereas job insecurity is a subjective employment stressor. Similarly, economic deprivation concerns the objective inability to meet current financial needs whereas economic strain concerns the perceived inadequacy of one’s income. A sizable body of literature indicates that employment stressors are associated with poor job attitudes and performance, lower physical and mental health, higher turnover intentions (e.g., Cheng & Chan, 2008; Feldman, 1996; Hanisch, 1999; McKee-Ryan, Song, Wanberg, & Kinicki, 2005; Sverke, Hellgren, & Näswell, 2002) and even a higher risk of death by suicide and homicide (Stuckler, Basu, Suhrcke, Coutts, & McKee, 2009). In contrast, the income-related stress literature is more fragmented and includes fewer studies directly related to OHP.

Sears’ (2008) review of the income-related stress literature highlights the many ways researchers have measured objective income stressors, including total household income (e.g., Sinclair & Martin, 2006), financial resources (e.g., Conger et al., 1990), debt-to-asset ratios (e.g., Simons, Lorenz, Conger, & Wu, 1992), and composite measures of financial need based on demographic variables such as marital status and family size (e.g., Brett, Cron, & Slocum, 1995; Doran, Stone, Brief, & George, 1991; Shaw & Gupta, 2001). Sears also distinguished the affective and cognitive
components of subjective income stressors. She defined financial strain as an affective construct consisting of negative emotional reactions related to one's current financial status. In contrast, she described perceived income adequacy (PIA) as a cognitive construct consisting of evaluations of one’s current and expected future ability to afford basic living needs (PIA-needs), and the ability to afford current and future lifestyle desires (PIA-wants). This wide range of measurement options highlights the need for further attention to the connections between economic stress constructs, a point we return to later.

Figure 1.1 portrays a multilevel model of economic stressors that integrates macroeconomic processes, organizational policies and practices, and individual psychological processes. This model serves as a heuristic device highlighting the idea that individuals' economic stress perceptions are embedded in personal, organizational, and macroeconomic contexts. Each level of analysis shares the common theme of intervening processes linking antecedents to outcomes, albeit with considerably different variables at each level.

The Individual Level

Our central focus is on the individual level of analysis. Probst (2005a) discussed several individual outcomes of economic stress, including lower physical and psychological health, higher family/friendship strain and marital distress, poor job attitudes, more work withdrawal, and less workplace safety. Our model assumes that subjective economic stress mediates the relationship between personal economic
antecedents and these outcomes. We discuss several examples of potential antecedents of economic stress and possible moderators of the relationship between antecedents and subjective stress, or between subjective stress and health outcomes. Although some research has examined demographic variables such as gender (e.g., Jacobson et al., 1996; Mauno & Kinnunen, 2002), we decided to de-emphasize those studies as we assume that observed demographic differences are indicative of some underlying psychological or behavioral difference.

Individual-level antecedents

Employees’ objective financial and employment situations (e.g., unemployment, household income, debt) should be strongly associated with subjective economic stress (e.g., McKee-Ryan et al., 2005; So-hyun & Grable, 2004) as should individual differences in saving tendencies (e.g., Anderson & Nevitte, 2006), or debt accumulation (e.g., Norvilitis et al., 2006). This literature suggests the need for attention to the role of financial knowledge, skills, and abilities (KSAs) in economic stress (e.g., Howlett, Kees, & Kemp, 2008). As knowledge of sound financial principles and strategies increases, people should be less likely to make bad financial decisions. Thus, they should have better objective financial situations and, as a result, lower subjective financial stress. Consistent with this idea, consumer science literature has demonstrated positive effects for financial education programs (Fox, Bartholomae, & Lee, 2005). Although such programs cannot completely overcome the effects of severe income deprivation or extended unemployment, they can help employees make the best of bad situations.

Personality traits also may contribute to economic stress by making employees more vulnerable to subjective economic stress either through their more negative appraisals of the environment or their own ability to manage the environment. Research has examined three clusters of these traits: traits affecting the anxiety people experience in relation to stressors, such as neuroticism (Tivendell, & Bourbonnais, 2000), and tolerance for ambiguity (Adkins, Werbel, & Farh, 2001); traits reflecting employees’ sense of control over their financial situation, such as locus of control (van Hooft & Crossley, 2008); and traits concerning employees’ general sense of their self-worth, such as self-esteem (Lee, Bobko, & Chen, 2006; Mauno & Kinnunen, 2002; Pearl, Lieberman, Menaghan, & Mullan, 1981). All of these traits reflect vulnerability to psychosocial threat, and most either directly or implicitly fit with research on core-self evaluations (CSE, cf. Judge & Bono, 2001). CSE research posits that people have general tendencies to appraise themselves and their environments positively or negatively and to feel in control of and capable of responding to environmental demands. Thus, low CSE should be associated with higher subjective financial stress. Consistent with this idea, Judge, Hurst, and Simon (2009) found that higher CSE was associated with lower financial strain, both directly and indirectly through a positive relationship between CSE and income. Thus, we would encourage economic stress researchers to examine CSE in future research.
Individual-level moderators

Relationships between economic stress and outcomes may depend on several individual factors, although research on any particular factor is limited and sometimes yields inconsistent conclusions. For example, some studies show that the relationship between financial stress and outcomes may not differ across gender (e.g., Elliot, 2001). However, others report both age and gender interactions, such that the negative effects of job insecurity may be strongest for older workers in general (Finegold, Mohrman, & Spreitzer, 2002) and older women in particular (Rugulies, Aust, Burr, & Bültmann, 2008). Other research has found that personality traits moderate the relationship between economic stress and outcomes. Most of this research fits the CSE framework described above, including the moderating effects of self-efficacy (Adebayo, 2006), control (Creed & Bartrum, 2008), and control-focused coping (Wadsworth & Santiago, 2008). Finally, social support appears to protect people from the negative mental health outcomes of economic stress (Crosier, Butterworth, & Rodgers, 2007; Ferraro & Su, 1999). Supervisor and coworker support also appear to buffer negative effects of job insecurity (Lim, 1997), and interpersonal conflict exacerbates the negative effects of financial stress (Skinner, Zautra, & Reich, 2004). Research in each of these areas suggests promising findings, but there remains a definite need for more empirical studies.

The Organizational Level

The organizational level concerns the policies and practices organizations use to respond to changing competitive conditions and environmental constraints. Organizational theorists have described the strategies organizations use to adapt to their environments and defined several effectiveness criteria, including stakeholder satisfaction, goal accomplishment, market share, and long-term survival (Daft, 1995). The American Psychological Association has also developed a Psychologically Healthy Workplace Award program (www.phwa.org) which includes criteria such as work–life balance, workplace safety, and employee development, involvement, and recognition. Organizational variables may influence employees through several pathways, including (1) effects on individual economic antecedents, (2) direct influences on subjective economic stress, (3) moderating relationships between individual-level antecedents, responses, and outcomes, or (4) influences on individual-level moderators. Some of these pathways have been studied extensively, and others not at all.

Organization-level antecedents

Many organizational characteristics may influence economic stress. For example, research shows higher job security for people working in state-owned firms in China (Gong & Chang, 2008) and public sector employees in Finland (Mauno & Kinnunen,
Sinclair, Sears, Probst, & Zajack (2002), compared with employees in nonstate-owned and private sector organizations, respectively. An organization’s financial status is perhaps its most important characteristic, as it influences organizational policies and practices likely to affect employees’ economic stress.

Improving financial performance boils down to two basic strategies: increasing revenue and reducing costs. Worker pay and benefits account for a large share of operating expenses, leading companies to cut costs through workforce reductions or downsizing (Said, Le Louarn, & Tremblay, 2007) and related strategies, such as mergers. Such practices create considerable stress for employees (Ashford, Lee, & Bobko, 1989; Probst, 2002; Reisel et al., 2003; Sverke et al., 2002) as they redefine the work environment (Ahuja & Katila, 2001), increase role stressors (Jimmieson, Terry, & Callan 2004) and reduce employee commitment (e.g., Brotheridge, 2003; Dackert, Jackson, Brenner, & Johansson, 2003). These human costs are particularly unfortunate given that reorganization does not always achieve its intended goals (Cascio, 2002; Said, 2007). Even when downsizing yields gains in profitability, the gains may be short-lived (McKinley, Sanchez, & Schick, 1995) and often harm a firm’s reputation (Love & Kraatz, 2009).

Organization-level moderators

Organization-level moderators influence the individual-level relationship between antecedents and subjective stressors or between stressors and outcomes. For example, income-related stressors might have stronger effects on well-being for workers in a declining industry because the stress caused by income deprivation might be exacerbated by their limited future prospects. Two examples of organization-level moderators with at least some empirical support concern participative management and organizational justice.

Regarding participative management, the Job Demand–Control model (Karasek, 1979) proposes that jobs vary in their levels of demands (i.e., stressors) and workers’ level of control (Wall, Jackson, Mullarkey, & Parker, 1996). Probst (2005b) found that employees who perceived high control, defined as greater perceived input into organizational decision-making processes, experienced fewer negative outcomes from perceived job insecurity. Such findings suggest that participative decision making offers employees a chance to regain a sense of control that might be lost because of job insecurity.

The organizational justice literature concerns employees’ perceived treatment at work, and thus reflects individuals’ reactions to organizational policies and practices. Colquitt, Conlon, Wesson, Porter, and Ng (2001) described four components of organizational justice. Distributive justice refers to the fairness of outcomes that employees receive in comparison to their coworkers, personal standards, or their perceived contributions. Procedural justice describes the extent to which organizational procedures are applied consistently, are unbiased, and provide employees with opportunities for input. People tend to perceive higher levels of interpersonal fairness when they are treated respectfully during the implementation of procedures,
and higher levels of informational justice when they receive timely explanations for decisions that affect them. Justice can help both victims and survivors experience fewer adverse consequences from layoffs (e.g., Brockner, et al., 1994). For example, the effects of organizational change on employees may depend on the extent to which they receive sufficient and accurate information about the changes (Adkins, Werbel, & Farh, 2001). Regarding fairness and financial stress, research has shown that pay fairness predicts performance and well-being outcomes (e.g., Shaw & Gutpa, 2001) but further investigation of both direct and moderating effects is needed. Important questions remain about contemporary compensation issues such as furloughs (i.e., mandatory unpaid days off), cuts to health benefits, and disparities between executive and nonexecutive compensation.

The Macroeconomic Level

We define the macroeconomic level broadly to include economic systems, cultural issues, and industry-level influences. These factors influence economic growth and contraction through basic market forces such as supply and demand and include factors such as monetary policies, industry practices, and international trade/regulatory agreements. Macroeconomic health outcomes include objective economic well-being indicators such as gross domestic product and employment rates as well as subjective indicators such as consumer confidence (cf. www.confidence-board.org).

Macroeconomic forces affect individuals both directly and indirectly. The direct effects refer to individuals’ reactions to macroeconomic conditions, such as when income-related stress stems from perceptions of regional or national economic conditions. Indirect effects operate through changes in organizational strategy, such as when organizations introduce furloughs as a strategic response to declining revenues. Finally, our model highlights the possibility of cross-level interactions. For example, reorganization may only lead to improved organizational health when there are concomitant macroeconomic improvements. Similarly, objective economic stressors might have stronger negative effects when employees anticipate that their organization’s financial condition is likely to worsen in the future.

Macroeconomic antecedents

Both national/regional and industry-level unemployment rates provide useful indications of macroeconomic conditions related to employment (Reynolds, 1997). As unemployment rates rise, workers become more concerned about losing their jobs. Such changes should affect the perceived value of one’s current job as they are associated with fewer employment alternatives and more competition for available openings. Organizations also typically change their staffing practices in a poor economic environment, employing more part-time/contingent workers or offering lower wages to new employees. Although we know of no research specifically on income-related
stressors, macroeconomic conditions, such as real-estate or fuel costs, may also contribute to occupational health, particularly for lower income workers.

Macroeconomic moderators

Little research has examined the effects of cultural, socio-economic, and/or political systems on economic stress. However, cultural variables offer a promising direction for future research. Culture influences how people process information, specifying what people notice and how events are evaluated, and prescribing guiding principles and values (Triandis, 1995). Cultural values also influence job-related expectations (Hui, 1990) possibly influencing economic stress by shaping perceptions of and expectations about economic security.

Individualism/collectivism is perhaps the most frequently studied cultural dimension (Hofstede, 1980; Kagitcibasi & Berry, 1989; Triandis, 1995). Hofstede (1980) found that people from collectivist cultures place greater emphasis on job security and good working conditions (Oyserman et al., 2002), whereas people from individualistic cultures value autonomy and task variety. Because they value security, people from collectivistic cultures should be strongly threatened by employment and income-related stressors (cf. Probst & Lawler, 2006). Probst and Lawler (2006) suggest that the negative effects of job insecurity, long identified in the Western literature, may be exhibited to an even greater extent in the Chinese culture where expectations for job security were higher to begin with, but are no longer being met.

A less studied but equally pertinent cultural variable is uncertainty avoidance. According to Hofstede (2001), uncertainty avoidance (UA) reflects the society’s level of tolerance for unstructured, unknown, or surprising situations. One might expect people in high UA cultures to react more negatively to economic insecurity. However, high UA societies also may craft public policies that emphasize uncertainty reduction. Thus, high UA societies may create stronger social safety nets to buffer workers from negative consequences of economic stressors. For example, the International Labour Organization (2004) research distinguishes countries in terms of their emphasis on labor market security. Pacesetting countries (e.g., EU countries, Canada, Israel, Japan) demonstrate a strong constitutional and policy commitment to social welfare, and protect their citizens’ economic security. The United States is described as a pragmatist country because of its relatively limited attention to workers’ economic security and failure to ratify ILO conventions. Conventional countries (e.g., Russia, Eastern bloc nations) have relevant governmental policies but little actual economic security because of other governmental challenges. Finally, much-to-be-done countries (e.g., many African and Middle Eastern nations) neither have policies to promote economic security, nor do they score well on economic indicators such as GDP and unemployment.

Although little research links socio-economic and political factors to economic stress, one recent study compared reactions to job insecurity in Switzerland and the United States (König, Probst, Staffen, & Graso, 2009). Switzerland and the United States have very different social safety nets for workers. For example, unemployed Swiss workers receive at least 70% of their normal income for up to two years and...
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with a maximum yearly benefit of SFr.100,800 (US$89,300). Such strong benefits would be inconceivable in the United States, where unemployment benefits provide an income at or below the poverty threshold. In addition, in Switzerland, losing one’s job does not affect health insurance, as health insurance is compulsory. Although König et al. (2009) found that the Swiss were less tolerant of uncertainty, U.S. participants reported more negative consequences from job insecurity. These findings are consistent with the idea that cultural differences shape public policy responses to economic insecurity, indicating the need for further attention to the socio-cultural context of economic stress.

**Economic Stress Interventions**

As with most areas of occupational health, there is a pressing need for empirically supported economic stress interventions. Table 1.1. depicts an organizational framework of interventions according to the type of prevention, the agent responsible for implementing the intervention, and the beneficiary of the intervention.

<table>
<thead>
<tr>
<th>Intervention level (goal)</th>
<th>Agent</th>
<th>Beneficiary</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Organization</td>
<td>Individual</td>
<td>Financial education programs</td>
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<tr>
<td></td>
<td>Organization</td>
<td>Organization</td>
<td>Employee furloughs</td>
</tr>
<tr>
<td></td>
<td>Government</td>
<td>Individual</td>
<td>Government-sponsored skills development programs</td>
</tr>
<tr>
<td></td>
<td>Organization</td>
<td>Organization</td>
<td>Economic development/ incentive programs</td>
</tr>
<tr>
<td>Secondary</td>
<td>Organization</td>
<td>Individual</td>
<td>Realistic merger &amp; downsizing previews</td>
</tr>
<tr>
<td></td>
<td>Organization</td>
<td>Organization</td>
<td>Downsizing/Restructuring</td>
</tr>
<tr>
<td></td>
<td>Government</td>
<td>Individual</td>
<td>Targeted financial education for high risk groups</td>
</tr>
<tr>
<td></td>
<td>Organization</td>
<td>Organization</td>
<td>Economic incentives (e.g., taxes) to support troubled local industries</td>
</tr>
<tr>
<td>Tertiary</td>
<td>Organization</td>
<td>Individual</td>
<td>Psychological/Outplacement/ Financial counseling programs</td>
</tr>
<tr>
<td></td>
<td>Organization</td>
<td>Reorganization (e.g., bankruptcy)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Government</td>
<td>Individual</td>
<td>Unemployment benefits; Dislocated Worker Programs</td>
</tr>
<tr>
<td></td>
<td>Organization</td>
<td>Organization</td>
<td>Bailout programs (e.g., the U.S. Troubled Asset Relief Program)</td>
</tr>
</tbody>
</table>
The prevention types include primary prevention, which concerns promoting employment and reducing income-related stress in the general population; secondary prevention, which includes efforts to encourage economic health in at-risk groups; and finally, tertiary prevention, which involves treatment to restore health among those who have experienced harm. We add intervention agents to the model to highlight the idea that while many interventions are implemented by management or its representatives (e.g., consultants, contractors), governments also shape economic health through regulation, public policy, and leadership. Finally, we distinguish between organizations and employees as the primary beneficiaries. Although some organizational changes may directly benefit employees (e.g., improved compensation), others cause considerable harm to a company’s current workforce (e.g., when a company relocates overseas to save employment costs). Still other changes hurt employees in the short term while having long-term benefits (e.g., mandatory furloughs that reduce pay in the short term but possibly save jobs in the long run).

We focus on three general clusters of economic stress interventions that require greater attention in OHP research: (1) financial education and counseling, (2) alternate staffing strategies, and (3) public policy interventions.

Financial education and counseling

Financial education and counseling programs may reflect primary, secondary, or tertiary prevention, depending on their focus. Francoeur (2001) notes the need for carefully planned proactive financial interventions that are tailored toward individuals’ needs. Regarding primary prevention (e.g., teaching money management strategies), studies show that financial education can reduce financial stress (e.g., So-hyun & Grable, 2004) and have other benefits such as decreased absenteeism (Jacobson, Aldana, Goetzel, & Vardell, 1996), and increased employee satisfaction (Hira & Loibl, 2005). Less research has focused on secondary prevention, but some studies show the benefits of financial education interventions for high-risk groups (e.g., Lyons, Chang, & Scherpf, 2006 for low-income workers). Finally, people who are already in financial trouble or experiencing job insecurity may require tertiary prevention programs such as financial counseling or even general psychological counseling, given the links between economic stress and mental health (Chou & Chi, 1999; Mills, Grasmick, Morgan, & Wenk, 1992).

Alternate staffing strategies

Although restructuring and downsizing are the most familiar responses to performance downturns, organizations may use several other staffing strategies. Examples include hiring freezes, employee transfers, job sharing, temporary reductions in work hours, unpaid furloughs, part-time positions, early retirement, and sabbaticals. Each of these strategies may be regarded less negatively by employees when organizations seek employee participation as they consider options and seek fairness when programs are implemented. The Society for Human Resource Management (2009) conducted polls in October 2008 and March 2009 to determine how organizations were
responding to the financial crisis. Along with budget cuts and attrition, layoffs were the most common initial reaction to the crisis. In October 2008, 48% of the firms had implemented layoffs, 48% had implemented hiring freezes, and only 3% had frozen wage increases. The March 2009 poll showed no change in the percentage of firms implementing layoffs (47%), but did reveal a 24% increase in retraining employees for new positions and a 46% increase in the use of freezing wages. While 44% of firms cut employee bonuses by March, only 18% had restructured executive compensation or severance packages. Creative solutions such as early retirement packages, furloughs, job sharing, or full-time telecommuting were instituted by 10% or less.

Irrespective of the strategy selected, organizations need to communicate effectively with their workforce about the nature of the changes (Bellarosa & Chen, 1997; Jones, 2003) to help reduce ambiguity and promote trust (Searle, & Ball, 2004). Human resources departments can help reduce employee strain during organizational change by encouraging effective organizational communication and ensuring that employees are treated with respect and dignity (Kickul, Lester, & Finkl, 2002; Teo & Waters, 2002). For example, Schweiger and DeNisi (1991) found that a “realistic merger preview” reduced the negative outcomes associated with a merger.

Public policy interventions

Public policy interventions may affect either individuals or organizations and may reflect primary, secondary, or tertiary prevention. Although OHP scholars encourage a focus on primary prevention, natural cyclical changes in local, national, and global economies preclude sole reliance on primary prevention. Additionally, unforeseen events such as natural disasters or large-scale terrorist attacks can wreak havoc on a nation’s economy and require multifaceted responses. Therefore, public policy programs need to focus on all three forms of prevention.

At the primary level, many governments are developing and implementing “economic stimulus plans” to create employment and stem the tide of mass layoffs. Although some would argue that these are reactionary plans that respond to the current crisis, such plans could also be truly preventive in nature. Additionally, government entities often dedicate resources to attract individuals into high-demand and high-growth jobs that would, hopefully, be less susceptible to the vagaries of a poor economy. For example, the U.S. Department of Labor’s (2009) High Growth Job Training Initiative targets worker training and career development resources to help workers gain skills needed for careers in growing industries such as health care, information technology, and advanced manufacturing. So-called “green jobs” programs (i.e., related to developing clean renewable energy) could be considered preventive as the green sector has experienced high rates of job growth over the past decade and seems to have been less affected by the current economic decline (The Pew Charitable Trusts, 2009). At the secondary level, governments can provide direct assistance to help individuals cope with economic stress. For example, the previous U.S. presidential administration sent several rounds of stimulus checks to families, hoping that consumers would use these funds to purchase goods, stimulating economic growth.
Such programs could be argued to represent either primary or secondary prevention, depending on a family’s financial status. They also highlight the idea of interactions among the systems across levels of analysis, as the checks sent to individuals were anticipated to affect the health of the entire economy. Unfortunately, research suggests that tax rebates and tax cuts have relatively low return on investment (Zandi, 2008), highlighting the need for empirically supported approaches.

At the tertiary level, governments can develop programs to assist individuals who have lost their income source. For example, in the U.S., over 96% of waged and salaried civilian jobs are covered by unemployment insurance or unemployment compensation. Typically, 26 weeks of unemployment benefits are offered; however, in response to recent poor economic conditions, the federal government has extended these benefits by an additional 33 weeks and many states provide further coverage once workers have exhausted their federal benefits. As noted earlier, however, these benefits pale in comparison to those offered by most European countries. Moreover, most U.S. state and federal extended benefit programs are one-time programs that may not apply to future downturns. These differences between the U.S. and Europe are particularly notable because some research suggests that increasing unemployment benefits may be among the best ways to jump-start economic growth (Shapiro & Slemrod, 2003).

Governments can also provide retraining for laid-off workers to facilitate their entry into occupations with greater long-term growth potential. For example, the 1998 Workforce Investment Act provides block grants to U.S. states that target employment and training for dislocated workers, disadvantaged adults, and disadvantaged youth. Most of the dislocated worker funds go to local areas, which are responsible for providing re-employment services. A second example is the High Growth Job Training Initiative mentioned above that provides opportunities for dislocated workers by transitioning workers from declining industries into areas with future growth potential.

**Research Directions**

A multilevel approach raises interesting issues about the nature of economic stress as well as practical questions about the effects of economic stress on occupational health. We suggest three directions for future research that can contribute improved theory and help develop better interventions. These suggestions include (1) developing a better understanding of the mediating mechanisms that connect economic stressors to outcomes, (2) addressing methodological concerns in economic stress research, and (3) considering economic climate as an organizational construct.

**Mediating mechanisms**

Although not the explicit focus of this chapter, it is important to consider the mediating mechanisms that account for the negative outcomes individuals experience from economic stress. Organizations often lack feasible means to reduce job stress