Measures of Organizational Stressors

When a specific organizational stress causes a major disruption, the source of the stress is usually apparent. In most instances, however, the impact of stressors is less obvious. There is a need, therefore, to systematically diagnose the sources and impact of organizational stress. There are objective measures which can be used, but these tend to be rather nonspecific in identifying organizational stressors. Questionnaires and interviews provide more specific information about the sources of stress. Some of the objective measures of stress and a number of commonly used stress questionnaires and structured interview formats are reviewed in the following pages.

While it is possible to examine work-related stress and non-work-related stress separately, it is not really possible to fully understand an individual’s overall stress level or experience without considering the two in combination. Therefore, this section also includes a consideration of relevant instruments which incorporate both aspects of an individual’s life. It would be a mistake to ignore either work-related or non-work-related factors in diagnosing an individual’s stress level.
Objective Organizational Measures of Stress

The objective measures which are available to evaluate organizational stress are to a large extent the measures used to assess organizational health and effectiveness. Such measures include the following:

- Tardiness rate
- Absenteeism rate
- Grievances filed
- Clinic and Employee Assistance Program utilization rates
- Rate and severity of work-related accidents
- Interdepartmental employee transfer rate
- Employee turnover rate
- Performance of specific cost/profit centers in standard terms (time per unit of service, unit produced per time period, percent utilization of raw materials, etc.)
- Sales volume and revenue, change in volume and revenue
- Return on equity

These and similar measures are appealing because they are objective and quantifiable. Understanding when to choose, implement, and use specific metrics can help in improving decision making, optimizing organizational effectiveness, and maximizing the value of investments in human resources (Cascio & Boudreau, 2011). Each of the measures can be influenced by many factors other than stress. Even when a high absentee rate is attributable to organizational stress, knowing the absentee rate does not in itself indicate the source of the stress.

Objective measures can be useful in several specific instances. Comparison of tardiness, absenteeism, or turnover rates among sub-groups within the organization may serve to identify high-risk groups worthy of further scrutiny. After these groups are identified, more specific stress questionnaires or interviews can be used to determine the reasons for poor performance. Comparing performance measures over time may help to alert management to potential difficulties. A fall in productivity or a rise in tardiness, absenteeism, clinic visits, or turnover may be an indicator of growing stress levels. What is important to note in this regard is the extent and degree of change that occurs.

When preventive management procedures or other stress reduction activities are undertaken, the impact of the interventions can be followed by some of the objective measures. If such measures are used to assess the impact of management interventions, it is important to carefully select those measures which are intended to be affected by the intervention.

While the objective organizational measures of stress may indicate the existence of organizational stress, they will not give much data or detail about the specific source of the stress. However, they provide an independent means for comparing groups within the organization and for assessing the impact of management interventions.
Quality of Worklife Questionnaire

Researchers from the National Institute of Occupational Safety and Health (NIOSH) and the Institute for Social Research at the University of Michigan developed and tested a series of questions which they have used to assess job-related stress and satisfaction. Separate scores are obtained for five individual constructs of job stress and satisfaction, and an overall score is obtained from these scales. The five constructs are job level, culture/climate, health outcomes, other outcomes, and work hours and balance (Centers for Disease Control and Prevention [CDC], 2011).

**Job Level** questions assess a wide variety of job characteristics. These characteristics include workload, job future, repetitive work, supervisory behavior, safety and health, stress management, and other measures. Job level is measured with 41 survey items (CDC, 2011).

**Culture and Climate** questions assessed the safety climate, discrimination, harassment, respect, trust, and relationship with management. 11 survey items are used to measure culture and climate.

**Health Outcomes** are assessed with nine items in the questionnaire. They look at physical health, mental health, injuries, and sleep problems (CDC, 2011).

**Other Outcomes** that are measured in the assessment include job performance, satisfaction, employees’ intent to leave, job commitment, overtime, and flexibility. Seven items are used in these measures (CDC, 2011).

**Work hours and balance**—measure hours of work, work/family split, supervision, benefits, and union participation. These are measured with 11 items. Originally, the stress-related portion of the Quality of Employment Survey was somewhat inconvenient to use because it is in an interview format. The updated Quality of Worklife Questionnaire solves this problem by using a traditional likert scale in measuring worklife quality (CDC, 2011).

Available from the [NIOSH](https://www.cdc.gov/niosh/).

*Approximate completion time: 30 min*
An Organizational Stress Screening Tool (ASSET)

An Organizational Stress Screening Tool (ASSET) developed by Cartwright and Cooper (2002) provides both clients and occupational health physicians with a robust and psychometrically tested instrument to diagnose stress. The test was developed with an occupational orientation. It can be completed either online or as a paper-and-pencil test.

ASSET accesses sources of pressure which include job security, control, overload, work-life balance, and working relationships. Employee commitment is measured as an attitude toward work. ASSET also measure the effects of pressure and stress on psychological well-being and physical health (Quick and Cooper, 2003).


Approximate completion time: 25–35 min
Occupational Stress Inventory–Revised Edition (OSI-R)
Developed by Osipow and Davis (1988) this copyrighted instrument provides measures of three domains of occupational adjustment: occupational stress, psychological strain; and coping resources. The Occupational Stress Inventory–Revised Edition (OSI-R) produces scores on 14 different scales. The inventory is made up of 140 items in total. Respondents indicate the frequency of a stress related event on a five point scale at a 7th grade level. The various subscales have demonstrated good test–retest reliability, and occupational norms are available. Plotting standardized scores on each subscale procedures a “stress profile” for workers.

Available from Psychological Assessment Resources, Inc.

Approximate completion time: 30 min
The Job Stress Survey (JSS) is a 30-item instrument designed to assess the perceived intensity (severity) and frequency of occurrence of working conditions that are likely to adversely affect the psychological well-being of workers who are exposed to them (Spielberger, 1994). Questions describing stressors commonly experienced by managerial, professional, and clerical employees were selected for inclusion in this generic job stress measure (Spielberger, 2010).

Respondents are asked to first rate, on a nine-point scale, the relative amount (severity) of stress that they perceive to be associated with each of the 30 JSS job stressors (e.g. "excessive paperwork" "poorly motivated coworkers") as compared to a standard stressor event, "assignment of disagreeable duties," which was assigned a value of "5." To assess the "state-trait" qualities of the stressors, respondents indicate on a scale ranging from 0 to 9+ days the number of days on which each stressor was experienced during the previous six months. Summing the ratings for each individual JSS item yields an overall Severity (JSS-S) and Frequency (JSS-F) score and overall Job Stress Index (JSS-X), which is based on the sum of the cross-products of the Severity and Frequency scores. Severity and Frequency scores are also computed for 10-item Job Pressure and Organizational Support subscales which were factor analytically derived from the 30 JSS items. The Frequency, Severity, Stress Index, and Job Stress survey subscales show considerable internal consistency Spielberger (1994).

Available from PAR.

Approximate completion time: 20 min
**Job Content Questionnaire**

The Job Content Questionnaire (Karasek, 1985) in its original form (Framingham version) was developed to measure the risk of job-related coronary heart disease in a large scale study. The short (original) version of the questionnaire contains 27 questions based largely on items and scales from the U.S. Quality of Employment Surveys (QES) conducted in the late 1960s and early 1970s. A longer 49-item version of the questionnaire is recommended by the author. Scales include: psychological job demands; skill utilization; job decision authority; job decision latitude; co-worker support; supervisor support; job dissatisfaction; depression; and sleeping problems. A still longer version of the instrument (112 items) includes scales in the area of customer contact, social identity, and the human/computer interface. Item scales are largely in the agree–disagree format. The scales have been demonstrated to be reliable and this instrument has gained acceptance among those who subscribe to the Karasek (1979) “demands-control” stress model. Scores obtained through its use can be compared to national average scores from QES surveys. The questionnaire has been translated into a number of languages and users have formed a network to circulate their findings.

Available from the [Job Content Questionnaire Center](http://www.jobcontentquestionnaire.com).

*Approximate completion time (Long): 30 min*
NIOSH Generic Job Stress Questionnaire

The Generic Job Stress Questionnaire (Hurrell & McLaney, 1988) was developed by the National Institute for Occupational Safety and Health (NIOSH) and contains measures of 13 different job stressors as well as a host of measures of individual distress and modifiers of the stress response. The questionnaire assesses constructs within domains contained in the NIOSH job stress model (Hurrell & Murphy, 1992). The measure was designed as a new tool for assessing work organization factors in studies on work organization and worker stress, safety, and health (NIOSH, 2009). Specific stressor, distress, and modifier variable constructs were selected for conclusion in the instrument on the basis of a content analysis of the job stress literature and the scales selected to measure these constructs were adapted from scales with known reliability and validity. The instrument was designed to be modular in form so that the diagnostician or stress researcher can select individual scales, or the entire instrument can be used. The questionnaire has been translated by various investigators into a variety of languages (including Japanese and Finish) and normative data on the questionnaire are currently being gathered.

Available from NIOSH.

*Approximate completion time: 30–45 min*
Life Stressor Checklist–Revised (LSC-R)
Yet another questionnaire measure of organizational stress is a revision of McLean’s (1979) Stressors Checklist by Wolfe and Kimerling (1997). The checklist is easily administered and includes several areas of general relevance. Lack of published data on the reliability and validity of the list makes any objective interpretation difficult. Therefore, it should be considered a tool for raising employee awareness of stress, rather than a diagnostic instrument for identifying areas requiring intervention. Two additional reviews examine the Life Stressor Checklist (Norris and Hamblen, 2004; Orsillo, 2001)

Available from United States Department of Veterans Affairs, National Center For Trauma and PTSD.
Approximate completion time: 10 min
Organizational Assessment

There are many objective measures of organizational effectiveness, such as profit margins and productivity indexes, and there are several stress questionnaires such as those listed above. But methods for conducting a comprehensive assessment of organizational effectiveness are limited. In his book chapter, *Organizational Assessment*, Harry Levinson (2002) provides a systematic approach to the study and assessment of organizational performance. Drawing on psychoanalytic theory, sociology, and systems theory, they describe an orderly diagnostic method aimed at understanding the operation of an organization and ascertaining areas of dysfunction. The data obtained through the diagnostic process serves as the basis for intervention and organizational change efforts. *Organizational Assessment* is aimed primarily at individuals involved in organizational consultation and executives interested in assessing their own managerial efforts.

The four major areas in the diagnostic process and their subheadings are:

1. Genetic data
   a. Identifying information (organization name, location, etc.)
   b. Historical data (reason for the study, organization problems, circumstances of the study, etc.)
2. Description and analysis of current organization as a whole
   a. Structural data (table of organization, personnel, etc.)
   b. Process data (communication systems, previous reports, etc.)
3. Interpretive data
   a. Current organizational functioning (organizational knowledge, emotional atmosphere, organizational action)
   b. Attitudes and relationships (attachments, relations to things and ideas, authority)
4. Analysis and conclusions
   a. Organizational integrative patterns (appraisal of the organization in terms of assets and impairments, relationship of the organization with the environment)
   b. Summary and recommendations (present status, prognostic conclusions, recommendations)

*Organizational Assessment* uses a wide range of case studies and published accounts to illustrate the approach to gathering and using the information listed in each of these sections.

In addition, the book includes a detailed Organization and Job Attitude Inventory. Although “stress diagnosis” is not specifically identified as an area of investigation, numerous stress-related items are included in the questionnaire. Rather than providing a quantitative measure of organizational well-being and organizational stress, *Organizational Assessment* provides a method for assessing these items in the context of a comprehensive study of the organization.
The Brief Stress and Coping Inventory

The Brief Stress and Coping Inventory is designed to measure and individuals current stresses and their coping skills. Stress totals are grouped into four categories of responses from worrisome to excellent. After completing the stress section of the inventory a total stress score can be calculated (Rahe, 2009).

Next, the inventory measures coping abilities on four categories of responses. After completing the coping section a coping points total is given, showing which indicates and individuals total coping score. With both the total coping score and the total stress score plotted, the intersection between the stress and coping on the stress and coping relationship graph will indicate whether or not an individual is at risk for near-future illness. The amount of risk is also made clear on the graph (Rahe, 2009).

This measure was designed for adults from teenager to senior citizens to discover their current levels of stress and coping skills. Individuals can reduce their near-future illness risk or increase their resilience building coping skills and working on stress management techniques (Rahe, 2009).

Available from Dr. Richard Rahe.

Approximate completion time: 10–15 min
The Hassles and Uplifts Scales

Kanner, Coyne, Schaefer, and Lazarus (1981) report an alternative method for measuring stressful life events. As in the case of the standard life events methodology, their concern is with the prediction of psychological symptoms. Both scales developed by Kanner et al. (1981) identify work and nonwork sources of stress in an interspersed fashion. The Hassles Scale contains 117 items identified as possible irritants for an individual which may range from minor annoyances to fairly major pressures, problems, or difficulties. The Uplifts Scale contains 136 items identified as sources of good feelings, peace, satisfaction, or joy. Each scale contains the option for adding hassles or uplifts experienced by the individual which were not covered in the scale. The items in the Hassles Scale are rated on a three-point severity scale and those in the Uplifts Scale are rated on a three-point frequency scale.

In a 10-month study, Kanner et al. (1981) found the Hassles Scale to predict concurrent and subsequent psychological symptoms such as anxiety, depression, and psychoticism better than the Life Events Scale (LES). They also found the Uplifts Scale to be positively related to symptoms for women but not for men. The test–retest reliabilities were 0.79 for frequency and 0.60 for intensity of the Uplifts Scale. As in the case of the LES, the Hassles Scale and Uplifts Scale may be useful tools to assess the general level of stress, but they provide little diagnostic information to guide preventive interventions.

Another scale used to measure daily hassles is the Daily Hassles Scale developed by Perkonigg & Wittchen (1995). In this self-report participants rate 14 daily hassles. The hassles are categorized into school/work, relationships with parents and siblings, peer relations, housing, finance, and leisure activities. The higher the frequency of the hassle the higher the value. Sample items include “How often have you faced stressors in school (e.g., low grades, time pressures, high demands)?” and “How often have you had conflicts with your friends?”


*Approximate completion time: 15 min*


doi:10.1007/BF00844845

*Approximate completion time: 15 min*
Work Environment Scale and Perceived Organizational Support

The Work Environment Scale (WES; Moos, 1981) was not developed to assess job stress; rather it was designed to assess the general work climate of all types of work units. It has nonetheless gained considerable popularity among stress researchers. It focuses on the measurement and description of the interpersonal relationships among employees, and between managers and employees; on the directions of personal growth and development which are emphasized in the work unit; and on the basic organizational structure of the unit. The scale contains 90 items that comprise 10 subscales (e.g. work pressure, control, task orientation, supervisory support, peer cohesion, physical comfort) and uses a true–false format. The subscales have demonstrated acceptable reliability and validity, and have been widely used over the past 15 years. Norms are available for a limited number of occupations and users may develop work unit profiles to compare work units and to assess work group changes over time. A 40-item short form (Form S) is also available.

Available from Mind Garden.

Approximate completion time: 30–40 min
References


