

**C**

**E**



**Center for  
Effective  
Organizations**

---

**Accounting for the Quality of Work Life**

**CEO Publication  
G 83-13 (44)**

Philip H. Mirvis  
Boston University

Edward E. Lawler III  
Center for Effective Organizations

May 1994

Partial financial support for the research described was provided to the Institute for Social Research of the University of Michigan by the Ford Foundation and the U.S. Department of Commerce.

---

**Center for Effective Organizations - School of Business Administration  
University of Southern California - Los Angeles, CA 90089-1421 (213)740-9814**

**Accounting for the Quality of Work Life**

**CEO Publication  
G 83-13 (44)**

Philip H. Mirvis  
Boston University

Edward E. Lawler III  
Center for Effective Organizations

May 1994

Partial financial support for the research described was provided to the Institute for Social Research of the University of Michigan by the Ford Foundation and the U.S. Department of Commerce.

**Center for Effective Organizations - School of Business Administration  
University of Southern California - Los Angeles, CA 90089-1421 (213) 740-9814**

## ACCOUNTING FOR THE QUALITY OF WORK LIFE

### ABSTRACT

This study describes the development and issuance of an independent report on the quality of work life in a Corporation. The theory underlying the report, criteria, definitions, measurement procedures, the properties of the measures, and report itself are presented. A survey indicating a favorable reception to the data by stockholders, financial analysts, and employees is analyzed. Recommendations for increased collaboration between accountants and behavioral scientists in the measurement and assessment of the quality of work life are presented in an effort to stimulate further research in the development of standardized measures and in the preparation of independent reports on the quality of work life in organizations.

The potential positive impact of regularly assessing and reporting on the quality of work life (QWL) in organizations has been frequently mentioned (see e.g. Lawler, 1982; Likert, 1973; Flamholtz, 1972; Likert and Bowers, 1973). Reports of how it can be done and of the impact of actually doing it are virtually nonexistent, however. This is hardly surprising since three distinct but overlapping lines of theory and practice need to be integrated in order to "account" for the QWL in organizations. First, all accounting systems are based upon theories that identify and link variables descriptive of some aspect of the "behavior" of the firm. At present, there is no "integrated" theory of the characteristics of the work environment that influence employees' welfare and well-being. Second, all accounting systems rely on "accepted procedures" for measuring the variables. At present, there are no standard criteria or measures of QWL (Toan, 1979). Finally, the purpose of accounting systems is to provide information for, among other things, managing, monitoring, and reporting on the custodianship of resources (American Accounting Association, 1966). It is uncertain, at this point, whether reports on the QWL would be seen by investors, financial analysts, and organization members as serving this purpose.

There have been instances in which corporations have measured aspects of their QWL and published the results. With few exceptions (see Grojer and Stark, 1977), however, these firms have not assessed work life with standard, reliable and comprehensive measures, nor have the results been reviewed by independent parties. Thus the validity of the findings and the accuracy of the data reported by these firms is open to question.

The study described here was undertaken in order to assess: (1) the feasibility of operationalizing a theory of the QWL with standard measures and procedures; (2) the practicality of preparing an independent and comprehensive QWL report; and (3) the relevance of a QWL report to stockholders, financial analysts, employees, and other recipients. This paper will consider, in turn, the rationale for the study, the theory behind it, the measures employed, the demonstration study itself, and conclude with an analysis of factors to be considered in the preparation of future reports.

#### RATIONALE FOR QUALITY OF WORK LIFE REPORTS

There is some evidence that collecting and reporting measures of the QWL can be beneficial for the management of organizations. In a classic study, Merrihue and Katzell (1955) found that development of an "employee relations index" contributed to better human resource management in a firm. More recently, Nadler, Mirvis, and Cammann (1976) found that an "ongoing feedback system" integrating personnel, performance, and survey measures of work life, when used effectively by managers, lead to higher job satisfaction, improved performance, and lower absenteeism and turnover.

In addition, there is also ample documentation that such measures enable firms to monitor the impact of management and personnel practices on employees. Researchers have shown there to be significant relationships between characteristics of the "human" organization and employee morale, absenteeism, and work performance (Likert, 1973; Mirvis and Lawler, 1977). Moreover the implicit linkages between these variables has led many corporations to undertake regular surveys of their employee's attitudes and to monitor rates of absenteeism and turnover.

There is less evidence that such measures provide employees, investors, and the public with useful information about the custodianship of human resources (Lawler, 1974). Certainly a case can be made with the increased recognition of employees' "rights" in the workplace (Ewing, 1978), investors' social responsibilities toward employees (Alexander and Buchholtz, 1978), and the public's role in bearing some of the costs of QWL ((Lawler, 1976), that such measurements would be useful. Although throughout Europe there is a tradition of mandated (France) and voluntary (Germany) social accounting that includes indicators of work life (Dierkes, 1979), there is no such tradition in the United States.

#### DEFINING THE QUALITY OF WORK LIFE

The first task in accounting for QWL is to identify the domain of work life that can be subsumed under the mantle of corporate stewardship and responsibility. For example, human capital theorists regard employee's services as inputs to the firm's production function. Thus employees are regarded as "resources" because they "possess expected future service potential" (Flamholtz, 1972, p. 608). This implies that organizations are responsible for providing jobs, training, performance appraisal, and compensation to employees because these influence the future service potential of employees and ultimately, their "value" to the organization. This view has been extended by management theorists who contend it is in the "self interest" of firms to develop their human resources in order to increase return-on-investment and upgrade skills in the labor pool (Keim, 1977). The implication is that firms are accountable for a wide range of employment conditions whose effects are "internalized" in the value of the human organization. Additional

domains of responsibility have been proposed by theorists who contend it is the ethical obligation of firms to protect the welfare of employees (Simon, Powers, and Gunnemann, 1971). These theorists argue that firms should also be held accountable for protective employment conditions whose benefits may extend to employees' families and communities. This adds some "externalities" to the roster of factors for which the firm is responsible.

Within these broad perspectives specific criteria of QWL are plenty and varied. Their diversity is due to the distinct disciplinary conceptions of QWL in each of the social science disciplines (see Westley, 1979) and to changing views of corporate responsibilities and employee rights (see Walton, 1975). Despite differences in conception, terminology, and emphasis, two sets of criteria are common to definitions of QWL. The first set encompasses characteristics of the work and work environment that influence employees' work lives and the second set consists of criteria of employee welfare and well-being. A review of these definitions highlights their disciplinary and historical development and provides the basis for developing an integrated definition of QWL.

#### The Work and Work Environment

Early definitions of QWL reflected interest in manpower planning and the effects of collective bargaining agreements on employment practices. QWL was conceived of in terms of the availability of jobs, manpower training and mobility, employment security, fringe benefits and earnings. Following the emergence of the social welfare orientation in economics, job safety, working conditions, and the equitable distribution of wages and job opportunities were added to definitions of QWL.

Surveying these conceptions, Seashore (1976) notes that employees were regarded as "economic resources." As a result, a good QWL environment was defined in terms of the employment conditions in which employers and workers could fulfill their economic responsibilities to one another and to the society which consumes goods and services and bears the cost of unemployment, illness, and injuries.

More recently, definitions of QWL have also emphasized the human resource development orientation in modern management. Economists have shifted some of their attention to the responsibilities of work organizations to upgrade employees' skills and provide them with opportunities for advancement. Social scientists have expressed concern with "underemployment," arguing that a QWL environment includes challenging jobs commensurate with rising levels of education in the workforce (O'Toole, 1977). Behavioral scientists have extended this theme and proposed that a good quality job is "enriching" in the sense that it provides autonomy and responsibility to workers, good work relations and supervision, and affords them a chance to make work decisions and develop their interests and abilities (Lawler, 1975).

In sum, a good QWL environment has come to be defined as one that attracts employees, trains and develops them, advances them, provides them with enriching work experiences, invites their participation in job-related and organization-wide decisions, and, at the same time, provides them with stable employment, adequate income and benefits, fair treatment, due process and a safe and secure place to work.

#### Employee Welfare and Well-Being

Behavioral sciences have equated QWL with employees' "satisfaction" with wages, hours, and working conditions (Taylor, 1974). This



definition has been expanded to include workers' satisfactions with all aspects of their work and work environment and thus job satisfaction has been advanced as the sole outcome criterion of a high QWL.

Although satisfaction is a parsimonious conception of QWL, it is insufficient for evaluating the functional impact of the work environment on employees. Seashore (1974) notes that satisfaction represents a worker's accommodation to the work environment: in some cases it represents fulfillment; in other cases, lowered expectations. Moreover, this accommodation has consequences for workers' motivation, achievement, health, attendance and turnover. Thus, he proposes that the effects of QWL include not only satisfaction, but its attitudinal and behavioral consequences as well. Lawler (1975) develops this view and adds employee's attendance, physical and mental health, self-esteem, and personal and job related development as aspects of QWL.

Further developing this outcome orientation, social scientists have noted that employee's job attitudes and behaviors are also reflected in their quality of life off the job. Thus they propose that employee's participation in politics and community activities, and their views of their lives and futures, should be a part of any assessment of employee welfare and well-being (Andrews and Withey, 1974). Thus these externalities, along with the aforementioned internalities, have been advanced to define the impact of the work environment on people and, when taken together with the characteristics of the work environment, provide the foundation for the integrated conception of QWL adopted here.

## An Integrated View of Working Life

For purposes of this paper, QWL is viewed as an economic, social, and psychological relationship between an organization and its employees. In functional terms, it can be represented as  $QWL=f(O,E)$  where O represents characteristics of the work and work environment in an organization and E represents their impact on employees' welfare and well-being as individuals, members of the organization, and members of the society.

This definition yields a number of criteria for assessing QWL in an organization. To fulfill their economic and social responsibilities to employees, for example, organizations must provide a safe working environment, adequate and fair compensation, equal employment opportunities, and opportunities for job mobility and advancement. These criteria represent the "basics" of the employment contract as represented in legislation, social policy, and the view of employees as economic resources. The human resource orientation adds further responsibilities to employers to provide supervision, jobs, influence, and evaluations and rewards that motivate and develop personnel. These criteria represent elements of an emerging "psychological" contract (Yankelovich, 1978) between employers and employees as represented in contemporary views of a high QWL environment. Criteria of employee welfare and well-being, in turn, include satisfaction with work and work environment, membership in the organization as reflected in absenteeism and turnover, and membership in the larger society as reflected in health and attitudes toward life, participation in familial and community institutions, and continued employability in a changing economy.

This definition is by no means an all-inclusive "model" of the behavior of the firm. It does not presume to incorporate all criteria of QWL in a firm, nor does it purport to specify distinctive bi- and multivariate relations between workplace characteristics and individual's responses to them. Rather, it is proposed as a framework for identifying broad classes of variables reflective of organizational and personal characteristics for which a firm might be held "accountable" as a starting point for measurement.

#### METHOD

##### Measuring the Quality of Work Life

Measurement poses significant problems as there are no "accepted procedures" for measuring all the variables comprising QWL as defined here. Clearly the traditional financial accounting framework is inapplicable because of the absence of linear and additive relationships among the variables. Moreover, while in principle it is possible to measure the characteristics of the work environment in terms of investment value (Flamholtz, 1974) and their impact on employees' satisfaction, absenteeism, and turnover in cost accounting terms (Mirvis and Macy, 1976; Mirvis and Lawler, 1977), the procedures involve considerable estimation and are suspect as to their economic justification (Rhode and Lawler, 1973). Thus the human resource accounting model is inapplicable as well.

Accordingly, the researchers developed an "organizational assessment" methodology to account for quality of work life (Seashore, Lawler, Mirvis and Cammann, 1983). Standardized definitions and measures of behavior in organizations, including such QWL indicators as accidents,

absences, and turnovers, and means of reporting them as incidents and rates were developed (Macy and Mirvis, 1976). In addition, accounting principles were adopted to devise procedures to review personnel, safety, and accounting records of these behaviors and to verify their reliability through checks of the reporting system and on-site recording practices. These procedures produce objective measures of QWL in the sense that recordings can be verified and any misrepresentation of them by a firm are against the law.

Survey measures were developed to assess the work and work environment in a firm, and employees' attitudes and satisfactions. They were field tested in a sample of over fifteen organizations (see Seashore et al., 1983).

#### The Site

Graphic Controls, the organization studied, was at the time of the study a publicly held corporation with sales of 50 million dollars. It had five U. S. plants. From its beginnings in 1957, and particularly since the onset of its organization development program in 1970 (see Dowling, 1977), the firm has made an explicit commitment to improving QWL. Because of this commitment, the company undertook measurement of QWL: in 1975 and, in 1977, the Board of Directors agreed to publish the findings of the measurements in the firm's annual report.

#### The Role of the Independent Assessors

Since the data on quality of work life were to be publicly reported it was agreed by Graphic Controls that the data should be reviewed by an independent party. The researchers agreed to represent the Institute for Social Research of the University of Michigan as external "assessors". The role was that of auditors with some exceptions. The asses-

sors, unlike auditors, were involved in original data gathering and reporting of survey results. Furthermore, they lacked standard criteria for evaluating the firm's "performance" in providing a QWL report to employees. Nonetheless, the assessors agreed to "opine" on the data on the basis of year-to-year trends and comparisons with relevant regional and national employment statistics and with the results of the National Survey of Working Conditions conducted by the Institute (Herrick and Quinn, 1971).

#### Measurement Procedures

Work on the audit began in 1975 with an examination of corporate records and administration of a QWL survey. Records in the personnel, safety, and accounting departments were tabulated every year by the assessors and checked through cross references to other records. Company data gathering procedures and records were also checked by a sample audit. Corporate records of safety, wage payments, equal employment practices, and promotion were analyzed using standard definitions and measures. Behaviors were recorded as incidents and translated into rates for the workforce.

Surveys were administered to all employees in U. S. Plants in 1975 and 1977. Employees completed the surveys in one and one-half hour meetings on "company time." All employees were insured of the anonymity of their responses. Sales personnel and employees who were unable to attend these meetings were given a survey with a post-paid envelope addressed to the Institute.

Survey sample sizes for the two measurements were 577 and 801 representing response rates of over 90%. The percentage of women respondents in the samples was 30.5 and 34.3. The percentage of

minorities was 7.5 and 8.6. The ratio of blue collar to white collar and clerical workers was approximately 2:1:1.

Table 1 lists the scales of survey items that were derived from factor analyses of relevant sections of the survey as well as single items (see Seashore et al., 1983). These "subjective" measures of objective conditions in the organization covered the technical and personal aspects of supervision in the firm, evaluation and reward practices, job characteristics, and the opportunities employees had to offer suggestions, participate in decision, and air grievances.

-----  
Insert Table 1 here  
-----

Finally, measures focused on the impact of the work and work environment on employees' welfare and well-being. Employees were queried as to their satisfaction with pay, benefits, working conditions, chances for advancement, and so on. In addition, employees were asked about their participation in community institutions and whether or not they participated in local and national elections. They also rated their satisfaction with their lives and indicated whether their jobs today were preparing them for the jobs they anticipated having in the future.

#### Measurement Properties

Statistical tests were undertaken to assess the reliability and validity of survey measures. Scales were devised a priori and validated through factor analysis. Table 2 reports the intercorrelations of the satisfaction questions in 1977 and their groupings into scales. The table shows convergence between items in the scales and some divergence between scales. In turn, the reliability of scales was computed in

terms of the coefficient alpha ( $\alpha$ ). Table 3 reports the reliability of the satisfaction measures in each of the measurement periods. Finally, the stability of the measures across measurement periods was computed. Table 3 also reports these stability coefficients. It shows stability between period 1 and period 2 measurement except for the fringe benefits measure. A change in the company's fringe benefit package following period one may account for this.

-----  
Insert Tables 2 and 3 here  
-----

#### Issuing the Report

The 1977 audit and subsequent ones were intended to be published in the corporation's annual report. However, after the 1977 data was collected, but before it was issued, the firm was acquired by another corporation. Accordingly, the officers of the firm chose to publish a "Special Report" in 1977 which was distributed in the same manner as the annual report had been in past years. It included a two-page section on QWL in the corporation. The first page contained a brief summary of the project, a description of the measures, and some guidance on how to read the figures. The second page presented the findings on the basic elements of work life and their impact on employees from 1975 to 1977.

#### The Basis of Opinion

As is customary in audits, the assessors offered an opinion on the measurements and prepared a detailed supplemental document available to all employees and readers of the audited report.<sup>2</sup> There were four bases to their opinion. The first concerned the stability of the measures.

---

<sup>2</sup>These results and the supplemental report are available from the authors.

As an example, changes in the stability of measures were highlighted in supplemental reports and comments made on their possible association with changes. The second basis concerned changes in relationships between the measures.

The third basis of opinion focused on differences in ratings of QWL for different job and population groups within the company and changes in those differences over time. The supplemental report included analyses of breakdowns of the results for differing job classifications in the organization, for women and minorities, and for employees of differing ages.

The final basis of opinion concerned external referents. As an example, regional data on accidents and female and minority employment were compared with findings in the corporation and data from the National Survey of Working Conditions on safety, fair treatment, and satisfaction with promotions were contrasted with results in the firm.

#### RESULTS AND DISCUSSION

Table 4 presents the one page of results issued to the public in 1977. It shows an improvement in the firm's accident rate from 1975 to

-----  
Insert Table 4 here  
-----

1977 and that 8% of the workforce reported that dangerous or unhealthy conditions were a problem for them. In their opinion, the assessors noted that 16% of the workforce reported this was a problem in the Institute's national survey. There was also an increase in minority employment from 1975 to 1976 though a slight decline in 1977. The assessors noted that minority employment in the firm was above EEOC measures and comments were made on changes in the reliability and



regional averages for the firm's industry for all job groupings. Female employment increased over the three years but the assessors noted it was below regional averages for plant and salaried personnel. In their opinion, this along with the lower level of satisfaction amongst the primarily female clerical workforce, was cited by the assessors as an area of concern. Wage increases were greater than price increases as measured by the area's consumer price index over the three years and satisfaction with promotional opportunities was greater in the firm than in the national workforce. Satisfaction with the job was also greater and trends from 1975 to 1977 showed the positive impact of a new fringe benefit program in the firm. In their opinion, the authors commented on this high level of satisfaction and noted absences in the firm were lower than industry averages and that employees in the firm were more optimistic that the national workforce about their employment future.

Readers of this report were also invited to request additional information presented in a summary document. It included measures of the other aspects of the work and work environment and appropriate commentary. The assessors noted the high ratings of supervision in the firm in comparison to national data and the large number of employees offering suggestions to their supervisors (88% in the firm compared with 66% nationally). They also noted the modest amounts of challenge, autonomy, and variety in work expressed by plant employees, the lower levels of influence reported by clerical and plant in comparison to salaried employees, and the absence of a link between good performance and pay increases and promotions noted by 34% of the workforce. These latter findings were cited as further areas of concern. This supplemental report was intended, as is the purpose of any accounting report,

to focus attention on key findings and concerns for managerial decision making (American Accounting Association, 1966).

#### Reactions to the Audit

To determine if the report served as a viable means for accounting for custodianship of the firm's human resources, a post-paid survey was inserted in the firm's special report. While over 3000 annual reports were distributed, the bulk were sent to institutional investors and investment firms. One hundred and forty-two questionnaires were returned to the Institute. Some 47 percent of the respondents were stockholders; 45 percent were employees; 6 percent were financial analysts; and the remainder were former employees or interested members of the public.

Approximately 70 percent of the respondents indicated they were very interested in QWL at Graphic Controls; 10 percent said they were "not at all" interested. Nearly two-thirds said the QWL at the firm was as important to them as its financial health.

Sixty percent of the respondents said the report supplied them with sufficient information, though nearly one-fourth would have liked to have had more data. Over all, however, 85 percent indicated the data contributed to their understanding of QWL at the company, and 81 percent found it an important resource in evaluating its overall health. More than two-thirds said they favored other corporations issuing such reports, and about the same percentage said they believed that outside parties should prepare them.

Of the stockholder respondents, more than 85 percent expressed an interest in the QWL in the corporation and nearly two-thirds equated its importance with the firm's financial health. Of the three major groups

of recipients--employees, stockholders, and financial analysts-- employees were most interested in QWL and most inclined to rate it as equal to or more important than the firm's financial health. Analysts found the data most useful. These findings are understandable, since it is hard to imagine a group with greater interest in quality of work life than workers and a group with more familiarity with data than financial analysts. There were no differences between respondents with regard to their interest in other corporations issuing such audits.

In sum, although the findings by no means represent the reactions of a random sample of respondents, they do indicate great interest in the QWL, its measurement, and the issuance of public, impartial audits of the corporation and of other firms. They also indicate that to recipients, Graphic Control's report was a satisfactory approach to monitoring QWL and reporting on the custodianship of the firm's human resources.

#### The Future of Quality of Work Life Reports

The present study clearly demonstrates that QWL reporting is possible and that it is likely to be well received. Although Graphic Control's stockholders and employees, as well as financial analysts, showed interest in and understanding of the independent report, more systematic research is needed to ascertain the breadth of interest and depth of value of such data. Economists, social and behavioral scientists, and even public relations officials have shown an interest in serving in this independent assessment function, but none of these disciplines has the experience or legitimacy to undertake it (Lerbinger, 1975). Some groups, such as the Dreyfus Third Century Fund and the National Council of Church's Corporate Information Center have conducted

independent social audits, and the U. S. Department of Commerce has proposed guidelines for assessing corporate social performance in many areas, including those related to QWL. What is needed is the formation of "accounting teams" headed, perhaps, by certified public accountants and staffed by organization behavior specialists to prepare and "sign off" independent reports of QWL. Only with the preparation of more reports and the assessment of recipient's reactions, can we know more about the feasibility of preparing such audits and of their value to stockholders, employees, analysts, and the public.

Such teams need standardized methods and procedures to verify the accuracy of survey records and the reliability and validity of survey findings and, when necessary, to undertake original data collection themselves. The definitions, measures, and methods presented here are a starting point, but need further development for purposes of codification, training of assessment personnel, and transmittal to organization as "accepted accounting procedure."

Clearly, there remain some key problems in conception and measurement of QWL and in the development of standards for evaluation. For example, the definition of QWL advanced here does not take explicit account of contextual factors that influence the relationship between organizations and employees. It must be recognized that organizations in different social and economic environments will most likely have differing views of their responsibilities to employees and have different resources available to fulfill them. Moreover, the impact on employee welfare and well-being may differ because of individual differences in expectation, preference, and need. Although it may be possible to specify minimal standards, as the government has done with safety,

wages, and equal employment practices, an overall evaluation of QWL in a firm must, of necessity, be a "judgment call."

In future reports there may be an opportunity to develop better standards of evaluation. Some organizations, for example, may specify QWL goals, or unions and management may jointly specify them. In such cases, measured results could be compared with the stated goals. Procedures could also be developed to take account of individual employee's preferences. In the study reported here, employees were asked in 1975 to rate the most important facets of work life to them and those rated as most important were incorporated in subsequent assessments of employee satisfaction. Other survey instruments ask employees to compare how much of a facet of work life they want versus how much they have at present (Likert and Bowers, 1973). Finding a means of assessing QWL results relative to such preferences will enable assessors to make better judgment calls.

In addition, there may be an opportunity in future research to develop better external criteria for evaluation. For example, stockholders, with a general knowledge of the investment market, can appraise a firm's optimal return on investment. But can they, with a general knowledge of the labor market, also appraise its optimal turnover rate? Researchers have been unable to identify what is too much and too little turnover. Consequently it is difficult to evaluate a firm's turnover rate and make the needed managerial decisions to strive to increase or decrease it. With the accumulation of data on turnover in organizations, and with empirical studies of its impact on both the financial health and QWL in a firm, such determinations may be possible.

There is also a need for criteria for evaluating the subjective aspects of corporate performance as again managers and stockholders are unable to evaluate whether there is too much or too little satisfaction in their workforce, and whether they should invest their resources in altering jobs, improving supervision, forming work teams, or in some other change effort. With the accumulation of survey data, and with empirical studies of the interrelation between differing aspects of QWL, such determinations can also be made.

Another key area for future research centers on comparability--of measures within a firm and of firms within an industry. As operationalized here, the criteria cannot be neatly ordered in functional terms. The measures may be neither linearly related, nor additive, nor may the resulting function be comparable within a firm or between firms. As data accumulates, however, it may be possible to develop such a function. This would be accomplished first by merging the results of organizational records and surveys into a common index. The procedure might call for linking these measures into a common conceptual framework, weighting them, perhaps by factor analysis, then using the first principal component, if sufficient variance is accounted for, to derive a single quality of work life score (see Schmidt and Kaplan, 1971).

This could be reported as a standardized score (e.g. versus 100) and serve as a benchmark for year-to-year comparisons. Moreover, if a number of firms collected comparable data in the same fashion, it may be possible to make comparisons between them. In addition, the data might also be compared to national, regional, and industry norms. There are, for example, such norms for accidents, turnover, wages, absences, and employment of women and minorities in data collected by the Department

of Labor, the Equal Employment Opportunity Commission, and various industry and trade associations. Normative data on worker attitudes can be found in the Institute for Social Research's National Survey of Working Conditions cited earlier.

Finally, in making opinions on QWL, assessors might also array the data into utility functions which, with proper statistical controls for external market conditions and internal factors such as firm size, industry, and the like would indicate the relative contribution of management to improving the quality of work life. All of this is only a possibility, of course, and would require considerable conceptual development and research. The aim is to reduce the margin of error in assessors' judgment calls.

## REFERENCES

- Alexander, G. J., and Buchholtz, R. A. Corporate Social Responsibility and Stock Market Performance. Academy of Management Journal, 1978, 21, 479-486.
- American Accounting Association, Committee to Prepare a Statement of Basic Accounting Theory, A Statement of Basic Accounting Theory. American Accounting Association, 1966.
- Andrews, F. A., and Whithey, S. B. Developing Measures of Perceived Life Quality. Social Indicators Research, 1974, 1, 1-30.
- Dierkes, M. Corporate Social Reporting: The German Experience. In U. S. Department of Commerce, Report of the Task Force on Corporate Social Performance, Social Reporting in the United States and Western Europe. U. S. Department of Commerce, 1979.
- Dowling, W. F., Consensus Management at Graphic controls. Organizational Dynamics, 1977, 51, 22-47.
- Ewing, D. E. Freedom Inside the Organization. New York: Dutton, 1978.
- Flamholtz, E. Toward a Theory of Human Resource Values in Formal Organizations. The Accounting Review, 1972, 47, 666-677.
- Flamholtz, E. G. Human Resource Accounting. Encino, Calif: Dickenson. 1974.
- Grojer, J. G., and Stark, A. Social Accounting: A Swedish Attempt. Accounting, Organizations and Society, 1977, 2, 349-354.
- Herrick, N. Q., and Quinn, R. P. The Working Conditions Survey as a Source of Social Indicators. Monthly Labor Review. 1971, 94, 15-24.
- Keim, G. D. Corporate Social Responsibility: An Assessment of the Enlightened Self-Interest Model. Academy of Management Review. 1978, 3, 32-39.
- Lawler, E. E. Measuring the Human Organization. Paper presented to Human Resource Accounting Seminar, Bonn Federal Republic of Germany, September, 1974.
- Lawler, E. E. Measuring the Psychological Quality of Working Life: The Why and How of it. In L. E. Davis and A.B. Cherns (Eds.), The Quality of Working Life Vol. 1, New York: The Free Press, 1975, pp. 123-133.
- Lawler, E. E. Should the Quality of Work Life be Legislated? Personnel Administrator, 1976, 21, 17-21.
- Lawler, E. E. Strategies for Improving the Quality of Work Life. American Psychologist, 1982, 37, 486-493.



Lerbinger, O. How far Toward the Social Audit? Public Relations Review. 1975, 1, 38-52.

Likert, R. Human Resource Accounting: Building and Assessing Productive Organizations. Personnel, May-June, 1973, 8-24.

Likert, R., and Bowers, D. G. Improving the Accuracy of P/L Reports by Estimating the Change in Dollar Value of the Human Organization. Michigan Business Review, 1973, 25, 15-24.

Macy, B. A., and Mirvis, P. H. A Methodology for Assessment of Quality of Work Life and Organizational Effectiveness in Behavioral-Economic Terms. Administrative Science Quarterly, 1976, 21, 212-226.

Merrihue, W. V., and Katzell, R. A. ERI--Yardstick of Employee Relations. Harvard Business Review, 1955, 33, 81-89.

Mirvis, P. H., and Macy, B. A. Human Resource Accounting: A Measurement Perspective. Academy of Management Review, 1976, 1, 74-83.

Mirvis, P. H., and Lawler, E. E. Measuring the Financial Impact of Employee Attitudes. Journal of Applied Psychology, 1977, 62I, 1-8.

Nadler, D. A., P. H. Mirvis, and C. Cammann. The Ongoing Feedback System: Experimenting with a New Managerial Tool. Organizational Dynamics. 1976, 4, 63-80.

O'Toole, J. Work, Learning, and the American Future. San Francisco: Jossey-Bass, 1977.

Rhode, J., and Lawler, E. E. Auditing Change: Human Resource Accounting. In M. D. Dunnette (Ed.) Work and Nonwork in the Year 2001. Monterey, Calif: Brooks/Cole, 1973.

Schmidt, F. L., and Kaplan, L. B. Composite vs. Multiple Criteria: A Review and Resolution of the Controversy. Personnel Psychology, 1971, 24, 419-434.

Seashore, S. E. Job Satisfaction as an Indicator of the Quality of Employment. Social Indicators Research, 1974, 1, 135-168.

Seashore, S. E. Indicators of the Quality of Work Life. Paper presented at UNESCO Conference on the "Quality of Life." Paris, December, 1976.

Seashore, S. E., Lawler, E. E., Mirvis, P. and Cammann, C., Measuring Organizational Change, New York: Wiley Interscience, 1983.

Simon, J. G., Powers, C., and Gunnemann, J. The Ethical Investor. New Haven, CT: Yale University Press, 1971.

Taylor, J. C. Concepts and Problems in Studies of the Quality of Work Life. Los Angeles: University of California, Graduate School of Management, 1974.

Toan, A. B. Corporate Social Reporting: Past, Present, Future. In U. S. Department of Commerce, Report of the Task Force on Corporate Social Performance, Corporate Social Reporting in the United States and Western Europe. U. S. Department of Commerce, 1979.

Walton, R. Criteria for Quality of Work Life. In L. Davis and A. Cherns (Eds.) The Quality of Working Life (Vol. 1) New York: Free Press, 1975.

Westley, W. A. Problems and Solution in the Quality of Working Life. Human Relations, 1979, 32, 113-123.

Yankelovich, D. The New Psychological Contracts at Work. Psychology Today, May, 1978, 46-50

Table 1

Survey Measures of Work and Work Environment

<u>Scale</u>	<u># of Items</u>	<u>Sample Item</u>
<u>Supervision</u>		
Task Supervision	3	My supervisor plans out work in advance
Personal Supervision	3	My supervisor is concerned about me as an individual
<u>Influence</u>		
Making Suggestions	1	How often do you make suggestions to your supervisor on how work methods or procedures should be improved?
Suggestions Followed	1	Are your suggestions followed?
Expressing Complaints	1	How satisfied are you with the opportunities you have to express grievances or complaints?
Complaints Handled	1	. . . with the way your grievances or complaints are acted upon?
Participation	1	How satisfied are you with the chances you have to take part in decisions?
<u>Performance and Rewards</u>		
Performance Appraisal	2	How satisfied are you with the way your performance is appraised?
Extrinsic Rewards	2	If you do your job especially well, how likely will you be given a bonus or pay increase?
Intrinsic Rewards	2	. . . feel better about yourself as a person
Opportunity Rewards	2	. . . given chances to learn new things

Table 1 (cont.)

<u>Scale</u>	<u># of Items</u>	<u>Sample Item</u>
<u>Jobs</u>		
Personal Responsibility	1	I feel personally responsible for the work I do on my job.
Meaningful	1	The work I do on my job is meaningful to me.
Importance	1	In general, how significant or important is your job?
Impact on Job	1	How much does the work you do have a visible impact on a product or service?
Variety	1	How much variety is there in your job?
Challenge	1	My job is very challenging.
Decision Making	1	How much do you decide on your own what you do on your job?

Table 3

Reliabilities and Stabilities of  
Satisfaction Measures

Satisfaction with . . .	Reliability ( $\infty$ )		
	75	77	s <sub>12</sub>
Pay	*	*	.47
Fringe Benefits	*	*	.00
Job Security	*	*	.39
Working Conditions	.55	.66	.39
Co-Worker Relations	.77	.79	.42
Accomplishments	.81	.83	.44
Chances to Develop Skills	.88	.81	.48
Overall Job	.55	.68	.35

\* Single item measures

Table 4

The Survey Results

The basic elements of a good quality of work life are a safe work environment, equitable wages, equal employment opportunities, and opportunities for advancement.

Highlights

	1975	1976	1977
OSHA Accidents	2.5%	2.0%	1.7%

A smaller percentage of the work force suffered serious injuries on the job in 1976 and 1977. The great majority of employees also said they were safe from physical danger at work. Some 8% reported that dangerous or unhealthy conditions were a problem for them.

	1975	1976	1977
Wages		*	*
*(increased beyond inflation rate)			

Wages per hour increased the past two years. Overall, 62% of the work force felt that their wages were fair in comparison to those paid by other organizations in the area. 72% said their wages were sufficient to meet monthly expenses.

	1975	1976	1977
Female employment	30.5%	32.0%	34.3%
Minority employment	7.5%	8.7%	8.6%

Female employment increased the past two years. Overall, 72% of the female employees reported they were treated fairly on the job. The percentage of minority employees increased in 1976 but not in 1977. Overall, 84% of the minority employees said they were treated fairly on the job.

	1975	1976	1977
Promotions	7.0%	11.1%	10.9%

The percentage of employees promoted increased in 1976 but not in 1977. 61% of the employees said they were satisfied with their chances for advancement.

The relationship between a corporation and its people can also be measured in the way working life is satisfying to employees and contributes to their well-being on--and off--the job.

Satisfaction	% Satisfied		
	1975	1976	diff.
Pay	69.9%	71.0%	1.1%
Fringe Benefits	69.0	89.5	20.5
Job Security	76.8	76.1	-0.7
Working Conditions	71.2	77.2	6.0
Co-Worker Rel.	88.2	89.1	0.9
Accomplishments	80.5	77.7	-2.8
Chances to Develop Skills	72.4	74.6	2.2
Overall Job Sat.	93.7	90.2	-3.5

Most employees were satisfied with their working lives in both 1975 and 1976-77. During this time, there was a significant increase in satisfaction with fringe benefits and a small increase in satisfaction with working conditions. Other changes were insignificant. Overall job satisfaction is higher than that recorded in Gallup polls and the Institute's own survey of the national work force.

Absenteeism and Turnover

Absenteeism went from 3.7% to 2.8% of the scheduled work hours during the three year period. Turnover was reduced from 12.7% to 9.3% of the work force from 1975 to 1976. In 1977, it increased to 12.9%. Counting the loss of Gussness Forms Division employees, 33.3% of the work force left in 1977.

Work and the Quality of Life

Working life contributes, in some measure, to the quality of life. Overall, 95% of the employees expressed satisfaction with their lives. 57% of the work force were members of community, church, or social organizations and the vast majority reported voting in local and national elections. 70% of the employees said their jobs today were preparing them with the training and experience they need for their jobs in the future. Nationally, fewer workers feel as optimistic about their employment future.

Table 2

Intercorrelations of Measures of Satisfaction With Quality of Work Life

Satisfaction with:		1	2	3	4	5	6	7	8	9	10	11	12	13
PAY	1. Amount of pay													
FRINGE BENEFITS	2. Amount of benefits	.30												
JOB SECURITY	3. Job security	.29	.24											
WORKING	4. Physical surroundings	.18	.24	.30										
	5. Quality of equipment	.21	.29	.28	.48									
CO-WORKERS	6. Co-worker's friendliness	.23	.25	.26	.28	.24								
	7. . . . respect	.31	.21	.26	.26	.22	.66							
	8. . . . treatment	.34	.25	.32	.29	.27	.60	.69						
ACCOMPLISHMENTS	9. Chances for accomplishment	.43	.32	.40	.37	.32	.35	.42	.44					
	10. . . . do something to make you feel good as a person	.37	.31	.37	.38	.37	.28	.39	.33	.71				
CHANCES TO DEVELOP SKILLS	11. Chances to learn new things	.35	.30	.37	.27	.29	.30	.36	.35	.58	.60			
	12. . . . develop skills and abilities	.34	.34	.40	.36	.38	.30	.39	.42	.69	.73	.69		
OVERALL JOB SATISFACTION	13. Job	.48	.28	.33	.30	.29	.27	.36	.37	.56	.56	.43	.52	
	14. Working here	.32	.27	.25	.25	.23	.34	.33	.32	.45	.46	.31	.39	.54