A Paradigm Shift

Quality Responsibilities for Vocational Rehabilitation Professionals

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The goal of rehabilitation has always been employment or fuller participation in society for people with disabilities. However, the processes or systems created by rehabilitation have typically been separate from and different than the processes and systems of business and the community. Increasingly, as economic conditions change, as the business community changes, and as self-advocates with disabilities speak out, it is clear that people with disabilities will become part of the community and part of the work force. Our purpose is to describe changes in human resource management that may have great influence on the role of rehabilitation services in business.

The last 15 years have seen the United States' level of global competitiveness fall behind that of the rest of the world (Thurow, 1992; Kash, 1989). More important, it has fallen behind its own potential. Only during the last few years has the United States been gaining in competitiveness after losing some major industries to Japan, Korea, Europe, Asia, and Latin America. Less than 20 years ago, the United States manufactured ~50% of the world's television sets, 90% of the radios, 75% of the automobiles, and nearly 50% of the world's steel. Today, the United States produces barely 6% of the world's TV sets and radios,

28% of the cars, and 20% of the steel. In many cases, these losses resulted from the superior quality of products made in other countries. In other cases, the loss of competitiveness has been caused by a relative decline in productivity of the U.S. worker.

In November 1987, the Seventy-Fourth American Assembly (1987) released a number of statements. A significant statement referred to quality and is one with which most readers will agree: "This does not mean quality merely to [meet] specifications but quality that improves constantly, quality that is characterized by constant innovations that create a loyal customer. It means achieving this attitude from top to bottom, from board room to the factory floor." However noteworthy, an expressive element is missing from this important statement: service. Quality has been most commonly associated with the manufacture of tangible and durable goods such as televisions or automobiles. Such concepts have been applied far less frequently to services provided to the public (Albin, 1992). Only within the last 5-10 years have businesses begun to associate quality with services. For example, in the early 1990s a group of Thai investors bought a hotel in Seattle, Washington, stating their intention to provide the quality service they believe is characteristic of the toprated hotels in Thailand, a country known for superb service in the hospitality industry.

While methods and principles for achieving quality are being ever more widely applied, the "quality revolution" has yet to be applied across all functional areas of the organization. Notably, principles such as exceeding customer expectations and striving for continuous improvement are not commonly applied in human resource man-

J Vocat Rehabil 1993; 3(4):5-16 Copyright © 1993 by Andover Medical agement. What has become expected and necessary in manufacturing is only just becoming a part of service-sector culture and human resource management, including disability and rehabilitation management (Akabas, Gates, and Galvin, 1992).

Companies in the United States, following the lead of companies in other countries, including Japan, now invest in quality improvement as a part of their company culture. Within this culture, quality is considered to be uniformity around a target, with the expectation that there will be continual improvement. Rather than merely using a slogan such as "Quality is Number One," the emphasis on quality is treated as the responsibility of all employees. In the past, it has been primarily hourly employees such as assembly workers who have been responsible for maintaining the quality system. The role of management has been to focus on improving the system. This is changing, so that every level in the organization, from worker to top management, is now involved in seeking continual improvement. It is expected that managers will look for breakthroughs and encourage teamwork throughout the organization.

This notion of a focus on quality at all levels and in all departments in an organization raises several important questions to consider when addressing quality issues related to any service. What do we mean by quality? What is high-quality service? Is the responsibility for quality any different for managing human resources than it is for manufacturing products? And, for rehabilitation professionals, how does this commitment to quality affect hiring, training, and promoting people with disabilities?

The Seventy-fourth American Assembly's (1987) joint statement on quality marks the beginning of an awareness that quality is critical to U.S. manufacturing. Even so, it fails to address the important aspect around which quality must be built—the human resources on which every organization depends, including disability management. Rehabilitation is primarily a human resource management issue. Because the principles of quality improvement are applied in service industries and in human resource management in the private sector, there is value—and perhaps

necessity—in rehabilitation professionals understanding and applying the same principles. The purpose of this discussion is to describe the quality issues associated with human resource management in general and vocational rehabilitation in particular. We describe several traditional practices for improving human resources, the shortcomings of these practices, and the key practices that will be necessary for managers to adopt to incorporate quality improvement principles into rehabilitation and the management of human resources.

CHANGING DEMANDS ON HUMAN RESOURCES MANAGEMENT

Much has been written about the differences between the public and private sectors. Yet successful organizations in both sectors, whether they provide a product or service, are under pressure to become more efficient, more productive, and more competitive. In today's world of tight budgets, even governmental agencies once thought to be immune from dramatic cost-cutting pressures are finding they must provide better service for less cost. In this environment, vocational rehabilitation, like manufacturing industries, service industries, and all social services, will need to adopt what Deming (1986) called the "new philosophy"—constant improvement of service.

As organizations face cost cutting, they must become more efficient. For many, greater efficiencies rely on automation, with technological change leading to increases in productivity. At the same time, this leads to another structural change: we have become a "knowledge society." One of the great differences distinguishing organizations today from those of the era of Franklin D. Roosevelt is a new type of worker, the "knowledge worker"-that is, a worker whose role includes problem solving and requires higher and more diverse skills (e.g., Kern and Schumann, 1990; Zuboff, 1988). Peter Drucker (1989) described knowledge workers as "the new majority." These are not the kinds of employees around whom many of the traditional human resource approaches were designed in the past, or indeed, on

whom rehabilitation training programs have been focused. These are employees who are themselves "bosses," with less routine work and supervision and more complex work. As Drucker described them, they are "uniclass," not necessarily being of a middle class but, instead, classless. The more education they have, the more likely they are to work for organizations during the entirety of their working lives. Although they may have no special status, particular economic or social interest, or culture, they become part of a new breed of workers whose expectations are very different from those of the blue collar workers of the past. These workers are not content with more traditional management practices (Drucker, 1989).

Changes in work force demographics also require companies to reconsider human resource practices. The work force of the next two decades will be much more diverse than the work force of the last two decades. This shift will bring substantial increases in the numbers of workers who are unprepared for the technical jobs that will increasingly characterize the workplace (Iwasaki, 1992; Kolberg and Smith, 1992; Johnston and Packer, 1987). Widespread efforts in the business community and government to counter the competitive decline and emerging work force issues have been called "human-investment strategies" and represent both public and private initiatives to reorganize the workplace (Blinder, 1992; Bureau of Labor, 1990; Kennedy and Hatfield, 1991). These human-investment strategies emphasize training, investment in the work force, and educational reform (Thurow, 1970).

Inevitably, the differences between the work force of the future and the human resource practices of the past create a need for change. Most organizations face these challenges in organizational structures that are historically hierarchical and compartmentalized. Perhaps the structured delegation of roles and the passed-down authority imbedded in hierarchical organizations served well in the past. Now, for managers in any type of organization, it appears as if the only constant is change: organizations must change to survive.

People with disabilities in particular and the rehabilitation community as a whole will benefit by understanding and participating in the changes taking place in the business world. It is imperative that rehabilitation professionals understand these economic, technological, and demographic trends - and play a significant role in developing the strategies that are being implemented to address these trends. Investment in human resources represents an opportunity to include people with disabilities in work force initiatives, an opportunity that is perhaps greater now than at any previous time. Vocational rehabilitation professionals must be introspective about the qualityimprovement and human-investment trends shaping business to help business build a new work force strategy that successfully incorporates people who have been excluded from the work force under the old paradigm. Industry's perspective is important for two reasons: (1) people with whom vocational rehabilitation professionals work are expected to enter this changing work force of the business sector, and (2) professionals can learn from the strengths and shortcomings of the business sector and play a role in shaping the national response to work force issues. In the next section, we look at the traditional attitudes of companies toward workers.

TRADITIONAL ATTITUDES ABOUT EMPLOYEE PERFORMANCE

Traditionally, human resource functions within companies have been centralized in personnel departments in the interests of efficiency and equity in administering personnel matters. Such departments are responsible for recruiting applicants and preventing personnel issues that may negatively affect productivity and turnover. These personnel practices are the primary means by which companies invest in their employees. Management establishes and maintains systems related to hiring, promotion, and benefits management, as well as disciplinary actions and grievances. Companies are now discovering that many of the traditional practices and conventional wisdom of personnel management interfere with the implementation of quality improvement (Walton, 1990). Unfortunately, many traditional social service and rehabilitation practices also reflect these traditional approaches to human resource management. The following paragraphs highlight some of the more prevalent myths that have governed common practices.

Myth #1: Performance Is in the Hands of the Employee

This view reflects the belief that the employee is at fault when there is a performance problem. In social services, regulations are developed in attempts to force improvements, that is, to insistthrough rules for performance or compliancethat employees do a better job. It is common in the governmental services to see volumes of policies and procedures that are nothing more than performance expectations. In private industry, this approach is evidenced by quotas on expected production levels to attempt to "force" hourly employees to increase productivity. In rehabilitation, as well as in some industries, it is evidenced in the long-standing practice of paying "piece rates" for labor. This practice, originally used primarily in sheltered workshops, is now also used in community employment (Bourbeau, 1989; Hagner et al., 1987).

Obviously, managers are concerned with performance outcomes that measure an employee's productivity. Managers want to know about costs, profits, level of output, and quality. It is often assumed that the person who "scores well" on these measures is highly motivated; the employee who does not perform to established standards is considered to be poorly motivated. The difficulty with equating—and therefore, explaining—performance with motivation is that it assigns responsibility for any observed problems to the individual and removes the responsibility from the work team and managers. Responsibility is not only moved to the individual, it is explained in a way that does not allow further investigation or measurement - a "character" problem for which the solution, unfortunately, is often termination. It follows, then, that performance outcomes are poor indicators of the individual's performance potential, and there is little reason to believe that establishing a standard performance expectation will influence improvement.

Myth #2: "Bottom Line" Performance Accurately Measures an Individual's Contribution

In the private sector, profit- and cost-related outcomes are often influenced by factors over which the individual has little control. In typical work sites, the combined efforts of a variety of employees influence output, resulting in an interdependence that makes accurately singling out individual performance quite difficult. Furthermore, most measures do not consider all aspects of a person's job. Often an individual's work is influenced by global (organizational) concerns that may result in "poor" performance for the employee but enhance that of the organization. For example, one department may perform its functions at a loss so as to increase the return of another department.

Myth #3: Measures of Output Give Employees the Information They Need to Improve Productivity

Performance reviews or everyday supervisory feedback that provide an employee only with evidence of output may do little to promote improvement. The problem may not be the accuracy of such measures but that they do not tell the employee what must be done to improve. Performance reviews must shift to more dynamic measures to which the employee can continually refer for appropriate feedback.

ALTERNATIVES TO TRADITIONAL PRACTICES

In the private sector, human resource professionals and organizational development and work performance researchers typically study three major employee attributes as a way of explaining individual employees' performance: motivation, aptitude, and skill (Landy and Farr, 1983). Motivation, while important, is rarely influenced directly by the actions managers take when a performance problem has been identified. Aptitude is natural ability and is therefore not subject to change regardless of employer action. Learned skills are

subject to direct influence and are the keys to performance. Yet, currently, U.S. corporations invest \$530 billion in new plants and equipment, but on training they spend less than half per capita of what Germany and Japan spend (Bernstein, 1992).

Conventional wisdom about solving performance issues might suggest that the obvious solution is to seek out better employees, to "hire better." For rehabilitation professionals, the response to this has been to pretrain and screen referrals more carefully-practices that have a history of excluding people with more severe disabilities from employement (e.g., Sowers and Powers, 1991; Bellamy et al., 1986). This, of course, assumes that there will be a sufficient, qualified work force from which to hire and that there will be enough worker mobility to permit the selection of the type of work force that is desired. This selective staffing also costs the employer more, takes longer, and has no research that validates it (Snell and Dean, 1992).

With work force composition and volume presenting issues on the horizon, it may not be practical, possible, or even desirable for employers to attempt to hire better. Furthermore, many of the techniques for hiring better are impractical, even under current hiring practices. Better recruitment, screening, and assessment of applicants may remain important strategies, but will have little impact on the broad trends affecting employers' ability to increase performance through hiring practices or improve and maintain the skills of employees once hired. In the new paradigm, human resource management will become skilled at human-investment strategies. In this new role, human resource management will develop strategies that increase employee skills and productive capacity. Four areas that permit greater attention to work force skill involve strategies for accommodating individual differences: matching tasks to individuals, job analysis and restructuring, purposeful training for all employees, and performance reviews. These are key tools used in rehabilitation.

Job Matching

Once a person has been hired, employers may express concern about the match between the em-

ployee's talents and job demands. However, the match-up between the employee needs and the job characteristics is typically underemphasized. More strongly stated, rarely is effort made to match new hires to a specific job in a particular organization in terms of both human needs and the job climate. Too frequently, the primary strategy is to hire an applicant who looks good in terms of general job requirements in the hope that, once hired, the employee can be "shaped" to fit the specific job. Only the specific skills of the worker are considered in job matching. The bulk of the responsibility lies in providing feedback to the employee so that he or she can build on existing skills and grow with the position.

Job Restructuring

Employers must begin to tailor work to individual abilities and skills. Restructuring the job to maximize an employee's performance is essential. Job reconstructing is an area pioneered with people with disabilities because it has been perceived as more necessary for them than for other employees. It has enormous potential for improving the performance of the overall work force.

Training

Once hired, employee skills are developed through training. Increasingly, employers are recognizing training as an investment in productivity rather than a cost. However, most training expenditures are invested not in the skills of the work force, but instead in the training of managers (Bernstein, 1992). Perhaps this is based on the myth that managers will be more responsive to this activity than the "common worker."

A company strongly committed to training will generally spend >4% of its gross sales on employee training (Bernstein et al., 1992). This level of education and training should be distributed throughout the work force and delivered in an effective manner. Many progressive firms are also subsidizing external education—vocational courses at community colleges, bachelor's and advanced degree work at universities and colleges, and correspondence courses (Akabas, Gates, and Galvin, 1992). Although the employee benefits directly from such education and training, the or-

ganization also benefits by having a better educated and trained employee whose loyalty to the organization is enhanced.

Performance Reviews

A number of years ago, Vroom and Yetton (1973) developed the equation "performance = ability × motivation." Practice has been expanded the equation to include role perception. More recently, the equation has been expanded to include many other factors that influence performance (aptitude level × skill level × understanding of the task × choice to expend effort × choice of degree of effort × choice to persist × facilitating and inhibiting conditions not under the control of the individual). This challenging equation reminds us of the complexity of factors affecting performance. For good performance, one must know what is required, have the ability to do the task, have the motivation to do the task, and work in the environment in which the work conditions can be translated into required behavior. Unfortunately, performance reviews and the measurement of performance are not adequate to measure an individual employee's job effectiveness, for several reasons.

First, a multiplicity of factors exists in the work-place today. There are many factors over which the employee has little or no individual control, yet he or she is being measured as if there were singularity of influence. Furthermore, the diversity of tasks and difficulty of measurement make it increasingly hard to measure performance. Employees with specific and well-defined tasks may have relatively easy measures of output if the flow of work is steady and sufficient. For those serving customers or performing other management or service activities, performance may be extremely difficult to measure.

Second, not all parts of jobs are considered. Frequently, not all aspects of a person's job are included in the performance review. In addition, work tasks, at least in part, are often a team effort. The team manages and assigns tasks on a continuing basis to optimize team performance, making it difficult to identify every specific part of an individual's role in the organization. Furthermore, as companies reorganize the workplace into high-

performance work organizations by flattening their hierarchies and attempting to empower workers, teamwork in both decision making and producing the work is becoming a key strategy. Measuring individual performance works to defeat the team framework (Deming, 1982).

Finally, productivity is not the only factor in performance. A sole focus on productivity should not be used to measure the performance. If productivity is the only measure of performance, then many other aspects are ignored, such as quality, stability, creativity, and attendance, as well as more difficult-to-quantify contributions to the team.

WORK FORCE REFORM AND REHABILITATION

Employers are caught between growing labor needs, changing demographics, and fast-paced changes in the business environment. Old myths governing the old paradigm of human resource management such as testing and screening applicants and viewing education and training only as costs are being replaced by new practices that invest in employees and value human capital. Some companies are already making a shift, and others are following, toward recognition that an investment must be made in today's employee. In the new paradigm, investment in human capital becomes a value if the resulting increase in employees' value-added contribution to the employer is greater than the cost (Thurow, 1970). This new paradigm, which now values human-investment strategies such as training and education, can quantify the return on the human investment (Thurow, 1970). The new paradigm is quickly gaining significant public support and approval from top social, economic, and business leaders (Kitzhaber, 1992; Commission on the Skills of the American Workforce, 1990; Goldschmidt, 1992; Labor and Education Research Center, 1992; Thurow, 1992). To manage human-investment strategies that include employees with disabilities, employers and rehabilitation professionals must initiate the quality-improvement practices espoused by Juran (1988), Deming (1982), and others, and must reorganize the workplace. Before

engaging in this effort, we all must understand the fundamental differences between the two paradigms.

Public Cost of Wages

The dominant paradigm of rehabilitation, supported employment, and other employment services for people with disabilities focuses on the wages earned by the participants. Figure 1 is a classic representation of supported employment. An initial public investment in the first month of employment (values reflected are only used for the purpose of illustration) is used for activities such as job analysis, job modification, and job matching. In subsequent months, the initial public investment decreases and is maintained through ongoing supported employment service fees. In the case presented in Figure 1, public cost is \$1,100 in the first month, followed by 5 months of public costs averaging \$350/month. The total public investment is \$2,850. National data suggest

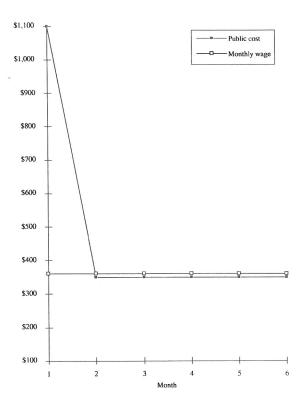


Figure 1. Public Cost of Wages Earned.

that employees with disabilities work ~20 hours/week (Rehabilitation Research and Training Center, 1992). At an hourly wage of \$4.50, the employee with disabilities earns \$360/month or \$2,160 over the 6-month period. The return on the public investment is \$0.76 in wages for every public dollar invested (return on public investment = monthly wage/public cost). Remembering the underlying concept in supported employment that the employee requires ongoing job coach support, the return on public investment remains static after the first month. This is clear in Figure 1.

Employee Value Added

The new paradigm will be governed by total quality management principles, which focus on the multiple customers of rehabilitation (Kolberg and Smith, 1992; Magjuka and Baldwin, 1991; U.S. General Accounting Office, 1991). In this new paradigm, the return on investment of rehabilitative practices will be measured both in terms of the public and private sector. Figure 2 shows the value added by the employee with disabilities described above.

Once again, the total public investment equals \$2,850 and the total wages earned by the employee with disabilities equals \$2,160. However, by adopting total quality management's focus on customers, we have now calculated this employee's valueadded contribution. In another words, we can view the financial contribution to the company by the employee with disabilities. We have used our customers' (supervisor and managers) estimates of productivity and contribution and applied them to industry standards for value added (Development Strategies Corporation, 1989). In Figure 2, the value added by the employee with disabilities is \$250 for the first month and increases to \$550/ month for the sixth month. The total value added contribution to the company is \$2,250. We now have two return-on-investment figures. The public return on investment remains the same at \$0.76 in wages for every public dollar invested. The company is also experiencing a return on the public investment. The company earns a return of

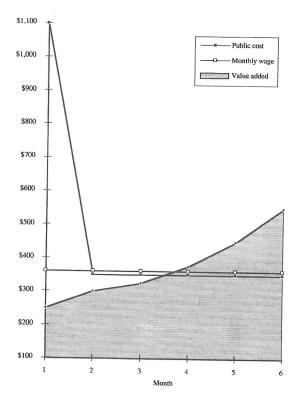


Figure 2. Employee Value Added.

\$0.79 value added for every public dollar invested (return on investment = value added/public cost).

Investment in Company Support

If the employment of people with disabilities results in constant improvement of their contribution to their employers income, two results occur. First, the company has now become part of the human-investment strategy, invested in its potential impact on earnings or value added. Second, companies may discover that rehabilitation human-investment techniques, such as precision training and modern supervision, have a positive effect on employees without disabilities (Mank et al., 1992). As business increases its ownership of the human-investment process, it becomes the primary decision maker in human-investment and rehabilitative activities. Figure 3 represents investment of public rehabilitation dollars in a company that is assuming responsibility for supporting an employee with disabilities.

In this case, the company has addressed barriers it identified in public rehabilitation practices (see Bloom, this issue) and has decided to receive initial workplace analysis and training on support strategies from rehabilitation professionals. This practice has been called natural support (Anderson and Andrews, 1990; Nisbet and Hagner, 1987; Rhodes et al., 1991; Sandow, this issue). The public investment may initially seem unreasonable because funds are spent before the employee with disabilities is hired. The public investment during this first month is much greater than the typical supported employment expenditure but decreases quickly as coworkers assume support responsibilities. Once the company has established the capacity to support employees with disabilities, selection and hiring occur. In the second month, the public cost continues to decrease as the role of the rehabilitation professional changes from supporting employees with disabilities to supporting the company. Because this new invest-

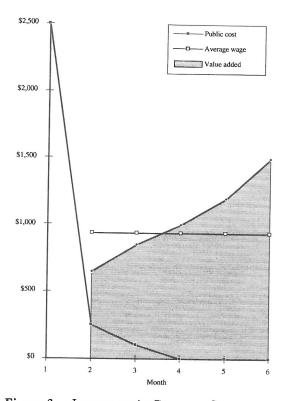


Figure 3. Investment in Company Support.

ment strategy integrates support for employees with disabilities into routine employment practices, the employee with disabilities is now employed for 40 hours/week, paid the same hourly wage rate of \$4.50, and receives a 30% benefit package. This increases the monthly wage for the employee with disabilities to \$936/month (including the 30% for benefits). Also, because decisions regarding work assignments are now made by employees instead of supported employment job coaches, supervisors will be inclined to do what they are paid to do: assign employees to job tasks in which they are most productive. This shift in decision making increases the employee's contribution to value added to \$650/month for the first month and \$1,500/month for the sixth month. The employee with disabilities now contributes a total of \$5,200 in value added to the company. This shift in support from supported employment job coaches to company employees has a positive increase on both public and company returns on investment. The return on investment for the public is \$1.64 in wages for every dollar of public funds invested. The company now realizes a return of \$1.82 in value added for every public dollar invested. Unlike the public cost and wage trend lines in Figure 2, the trend lines in Figure 3 now show a dynamic relationship of decreasing cost, increasing value added, and an increase over the former supported employment average monthly wage. This suggests that public return will continue to increase each month that the employee with disabilities earns a wage and the company maintains its support responsibility.

Establishing Improved Paradigms With Quality Improvement

The difference between the two rehabilitation practices described above is obvious when considering their impact on human capital. With 20/20 hindsight, the decision to establish a human-investment strategy that builds a company's capacity to support employees with disabilities seems to be a simple decision to make. However, we cling to old paradigms because of certainty in their effects and avoid new paradigms because of the risks they pose. Changing to the new paradigm of human resource management and rehabilitation

based on human investment can be facilitated if rehabilitation professionals use a few key assumptions from quality improvement and work force reform literature.

Establish a philosophy emphasizing quality. For any organization in the United States, progress in quality improvement must represent a significant investment in training at all levels of the organization. For this type of investment to reap the expected returns, organizations will have to establish a philosophy emphasizing quality from the top down to the lowest level of the organization. C. J. van Ham, Senior Director of Corporate Organization and Efficiency at Philips' Eindhoven (Netherlands) headquarters, stated it this way: "We see quality improvement as no longer a technical issue, but as an exercise in cultural change. The approach that people take towards quality improvement is determined by their own national culture. We know, for example, the Japanese methods, successful as they have been in some countries, wouldn't work in Mexico" (in Moir, 1988, p. 88). He further stated that his company does not impose a single standard approach to all of its employees worldwide. The same could be said of employees in organizations across the United States. Organizations have a great deal of discretion in developing a culture that facilitates ongoing service improvement.

Correlate process improvements with outcomes. One of the problems with traditional performance evaluation—of organizations and individuals—is the failure to correlate process improvements with outcomes. In quality-improvement programs, this correlation is critical. One of the valuable elements of quality improvement is that it ties improvements in activities or processes with outcomes valued by the organization. For example, the use of our human capital analysis helps us view the process of building company capacity to support employees with disabilities from an investment perspective.

Isolate problems with statistical evidence. One of the real values of quality-improvement programs is that there are techniques for determining when trouble occurs. Furthermore, when a trouble spot is discovered, there are tools available to help locate the source of the problem. This

location/isolation process is an important element in statistical quality systems. Although statistical processes are not difficult to use, their results can become irrefutable. Many human resource outcomes lend themselves to statistical measures: absenteeism, attrition, number of accidents, or number of employee assistance plan uses. For rehabilitation professionals, outcomes such as wages, hours worked, benefits earned, or economic well-being also become powerful information when analyzed with statistical tools.

Change the process of supervision. One benefit of training at all levels is that supervisors also learn techniques for incorporating quality principles into their roles. This process does several things. First, it requires supervisors to consider their role in quality improvement. Second, they view their employees' work as a reflection of their input as supervisor. Finally, they spend time with customers, who provide them with important information to use, and with their employees to develop new strategies to increase quality of service. This change refocuses a supervisor's contribution from indirect labor (completing reports for the next level of the organization, communicating new top management policies to workers) to direct labor (working directly with workers and customers on activities that increase quality).

Create a management structure that reinforces investment in human resources. Quality improvement requires attention to an organization's style and structure. The focus on quality must penetrate all levels of the organization. If it is missing at any level, a focus on quality will fail. Quality programs take relentless care and nurturing, but their payoff is far greater than the cost of the input. A fundamental responsibility of human resource managers will be to protect the employees' pride of workmanship by ensuring that improved performance is always rewarded, despite barriers such as doing things the "same old way," seniority, unproductive guidelines, or outdated standards. Reorganization strategies that attempt to flatten the hierarchy of organization, reduce the number of supervisors and managers, and empower workers increase the number of doers in the organization, and the number of thinkers as well, because direct-line workers become involved

in problem solving. The public analogy to this effort is found in attempts to reorganize agencies and promote community participation in developing and communicating a vision and strategy for implementing work force reform.

SUMMARY

Only recently have principles for improving quality been discussed as they relate to service industries, human resource management, and rehabilitation. Today, organizations of all types are witnessing the need for a new dimension of performance unthinkable 20 or even 10 years ago. To compete, or even to exist in the future, organizations must consider the importance of quality in every aspect of operation, including human resource management. Quality improvement and work force reform must extend into the field of rehabilitation to increase rehabilitation organizations' effectiveness and increase their understanding of the forces influencing the job market in which they hope to establish people with disabilities.

Similarly, vocational rehabilitaton professionals will need to change their approach by becoming increasingly present in companies and community services supporting their customers—employees with disabilities. This will require that counselors and other rehabilitation professionals value spending time in companies to become familiar with workplace trends and support needs. Tools such as workplace analysis, quality improvement, and human-investment strategies including employee support, team building, and the facilitation of strategies to integrate the workplace will need to be learned by rehabilitation professionals before the change can take place.

Rehabilitation professionals will also need to change their roles. Currently, rehabilitation professionals operate in a system that until recently was dominated by outcome measures. Through the 1992 reauthorization of the Rehabilitation Act, local rehabilitation autonomy increases. The counselors' role will change from purchasers of service to technical consultants expert in human-investment strategies involving citizens with dis-

abilities. Skills such as training trainers, organization design consultation, communication brokering, and identifying and disseminating benchmark examples will need to be learned before this role change can take place. Training to improve the performance of rehabilitation professionals within the changing economy and work force trends is not currently the focus of existing

rehabilitation training programs, yet its relevance to the state-federal rehabilitation program is clear. Strategic rehabilitation agency planning is increasingly directed toward achieving successful results for people who have been traditionally underserved and underemployed, converging on a national agenda for increasing both diversity and performance within the work force.

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