This paper outlines seven challenges facing the United States in the preparation of a competent workforce for the year 2000. The first challenge will be to predict what specific workers will need to know in the year 2000, and to make this prediction 4 to 6 years prior to students' completion of the training process. The second challenge is to define and develop training programs that recognize the individual needs of those who will make up the new workforce, which will include more than 50% women, 15-18% racial minorities, as many as 20-25% foreign laborers, and an increase in handicapped people. This challenge entails the recognition that training programs need to develop a curriculum that both meets the specific technological requirements of a job and gives workers the adaptability necessary to accommodate rapid changes. The third challenge is to help business and industry understand the need to accommodate the new workforce and to identify viable options for accomplishing that, such as the redefinition of the work day or the work site. The fourth challenge is for educators and employers to make adjustments and compromises to accommodate the cultural and value differences among the diverse individuals who will make up the workforce of the future, while the fifth challenge is to ensure that the value of quality is instilled in each member of the workforce. The sixth challenge is to educate and train people both to use current technology and to be motivated to keep up with emerging technologies. The final challenge will be to raise the awareness of society, its political representatives, and the business community regarding these multiple workforce challenges. (JMC)
CHALLENGES FOR PREPARING
THE NEW WORK FORCE FOR THE YEAR 2000

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CHALLENGES FOR PREPARING
THE NEW WORK FORCE FOR THE YEAR 2000

America is just 12 years away from the 21st century. By the year 2000 we will be in the midst of a crisis of alarming proportions—a crisis that will test the adequacy, productivity, and employability of the "new work force."

The warning signs are already flashing. We are seeing the symptomatic impacts of our accelerating flight from the manufacturing age into the age of technology and information. The National Alliance of Business provides the following statistics:

- 50 percent of all new jobs will require education beyond high school, and 30 percent of all new jobs will require a college degree, yet:
  - 23 million adults are functionally illiterate in America today. Another 47 million are borderline illiterates.
  - 80 percent of the new entrants to the labor force will be minorities, women, and immigrants (traditionally the least prepared to work).
  - Over 1 million youth drop out of school each year. Dropout rates of many urban schools are close to 50 percent.

The youth unemployment rate is triple that of overall unemployment.

The workplace, the work force, and the basic work ethic are all changing rapidly. These changes are being driven by continuing alterations in the productivity and quality of the American work force, increasing competition in the global economy, the accelerating pace of technological change, and changes in the basic family unit. The social problems of today will turn into the business problems of tomorrow.

These complex and compounding changes hold profound implications for those who will be part of the work force of the year 2000. These trends, both imminent and already in effect, will determine the make-up of the work force, will determine changes in the workplace, and will determine the way work is valued. These trends, therefore, present some interesting challenges in the effort to prepare competent workers for the future.

Members of the year 2000 work force are alive and here on earth today; in fact, 75 percent of them are in the work force today. The values they are learning, the knowledge, skills, and experiences they are gaining will be the foundation of their preparedness for work assignments in the year 2000. There will be fewer young people available for work in the year 2000. An increasing lack of basic education and skills in our young people confronts an economy that is more complex and more technologically driven. The gap is widening between the knowledge and skills that students are learning today and the requirements of an increasingly technological society.

The challenges facing our nation in adequately preparing the work force for the year 2000 are formidable. To examine those challenges we must first look at the worker and the knowledge and skills which are learned or acquired that relate to worker-readiness. The extent to which a worker is ready to assume a place in our work force is determined by what is learned or acquired as basic values, functional literacy skills, basic knowledge, and skills as a foundation to higher-
level learning, job-specific knowledge and skills, human relations skills, and the higher-level problem-solving, analytical and persuasion skills.

The First Challenge is to develop the ability to predict, with a fairly high level of accuracy, what the worker will need to know in the year 2000. In order for training and educational programs to prepare a potentially successful employee, the specific requirements of a job must be known four to six years prior to the student’s completion of the training process. While the actual required instructional time may be far less than this, few dramatic changes are ever accomplished in education and training in less than ten years from the inception of the program until the first graduates are ready to enter the work force.

A Second Challenge is to define and develop training programs that recognize the individual needs of those who will make up the new work force. These programs must be designed so that people can learn. This new work force will contain more than 50 percent women, 15-18 percent racial minorities, perhaps as many as 20-25 percent foreign "guest" laborers, and more handicapped individuals.

Of the young people (under 25 years of age) available to the work force, nearly 25 percent of them will come from single parent families and an increasing number will have socially dependent histories. According to the Federal Bureau of Investigation, 42 percent of the crimes committed today are by people under 21 years of age; therefore, as many as 20 percent of the labor pool of the year 2000 could have a felony history. Industry Week, in its February 9, 1987 issue, reports:

"A recent study, Literacy: Profiles of Young Adults, conducted by the Educational Testing Service, reports that 20 percent of this nation's young adults (ages 21-25) cannot read at the eighth grade level. Even more problematic is the fact that 25 percent of the ninth graders fail to complete high school—the rate for inner-city school systems is about 50 percent."

To accommodate these people and others with similarly unique requirements in the education and training scene, better support services must be made available in such areas as basic skills and literacy development, child care services, English as a second language training, and personal management training, e.g., coping with stress, adjusting to change. Schedules of education and training programs will have to be altered to better accommodate the student. In some cases those things considered as prerequisites will have to become a more "standard" part of the program. New efforts will need to be put forth to find ways to motivate these new populations to stay with and succeed in learning. Training programs must better accommodate these special populations of learners while still maintaining high standards for achievement and competency requirements for program completers.

A part of the second challenge includes the recognition that a training program needs to develop a curriculum or program of studies that will meet both the specific technological requirements of a job and the adaptive requirements, i.e., give the worker more adaptability and flexibility so as to accommodate rapid changes in the work setting. In reality, most workers will have to possess the knowledge and skills necessary to perform a specific job, with minimal additional training, at the time of hire. Otherwise, they either will not be hired or they will soon fail on the job. At the same time, if the worker is trained properly while acquiring the job specific knowledge and skills, they will have learned how to transfer the knowledge and skill to a variety of jobs and how to analyze and handle problem solving in a manner that makes them more adaptable or retrainable.
We have a great deal to learn before we know how best to teach such desirable skills. We must learn how to teach the job-specific knowledge and skills while teaching the processes to use and adapt them to changing situations. While we profess to be accomplishing this in both job-specific training and in the liberal arts programs, there appears to be little evidence that we are in fact accomplishing what we claim. Traditional methods of content-specific training must be replaced by methods that actively promote problem-solving, inquiry, and a variety of different applications.

A Third Challenge is to assist business and industry to understand the necessity for accommodating the new work force and identifying viable options for meeting their needs. In the certainty that there will be a labor shortage in the 21st century, managers need to learn how to work with diverse levels of skills, motivation, and needs in available workers. In an article titled 2000: Labor Shortage Looms, Roger Semerad states:

"If we are to turn the tables and increase our competitiveness, we must develop the skills and talents of all our human resources. Actually, the nation has almost no choice but to work with the people who will be available, some of whom are now ill-prepared for the work force of 2000."

One way to restructure the workplace to accommodate the new work force is to redefine the workday and the work site. Ron Zemke, in an article, Training in the 90's, shows employment trends in the 1990's with figures such as 50 percent part-time employees, 25 percent flex-time employees, and 10 percent home workers. This tailoring of employment may serve the needs of both the new work force employee and of the employer who has new conditions to cope with in the work setting.

The Fourth Challenge begins with an understanding of the early childhood years and resultant basic values of each worker. The culture and the values that each worker brings to the work setting have profound implications for both the employee and the employer. Those who provide the instruction for knowledge and skill development, as well as the employer, must be prepared to make adjustments and compromises to accommodate the cultural and value differences among those who will make up the work force in the year 2000. While our traditional approach to these differences has been to require the individual to conform to the standards and values of our institutions, training programs, and work sites, this will no longer be possible if we are to acquire all of the workers we need to operate our businesses, industries, and government.

Semerad, in his article, 2000: Labor Shortage Looms, suggests:

"We are generating a work force that is antithetical to our needs....Not only are we producing a new generation of workers that is unprepared in even the most basic of skills but many employees are also uninspired—devoid of the traditional values that have given the United States work force its dynamism and unsurpassed excellence."

How are we to deal with these various and nonconforming values in the year 2000 when both work force and workplace expectations are changing and growing? A large part of this challenge is to educate and train the new work force to work as "team members." The theme of coordinated team development is made complicated by a marked increase in minorities, the economically disadvantaged, illiterates, and foreign laborers. The challenge encompasses such tasks as teaching future employees how to accommodate language and cultural differences; how to communicate effectively over long distances with the inherent limitations of technology, compensating for the
apparent need for "high-touch" to counter the hi-tech setting, long-distance team work, and long-distance quality control.

Of less cultural impact, but still problematical, teams of workers may be made up of employees or departments in the same company or from different smaller companies who have some form of partnership relationship. Such teams may be long-term groups working together for several years or groups formed to address a specific project and disbanded when that project is complete.

The **Fifth Challenge** involves instilling the value of quality, and the concomitant knowledge and skills necessary to acquire quality, in each member of the work force in the year 2000. We most often think of quality as pertaining to products, but it is equally applicable to the services that a worker provides. The question of quality has been most notably prevalent in the concern over foreign competition and how their products and services compare to ours.

How do we teach such values, and the knowledge and skills necessary to uphold those standards to workers, regardless of their position with the company or agency? How do we help each worker see that the quality of their respective product or service might well be the determining factor in the very survival of their company or agency in the world marketplace? Quality control will become a primary competency that is highly sought in the work force of 2000.

The **Sixth Challenge** is to rise to the demands of the current technological and information society. We must educate and train people to have a broad technological literacy that will not only make them capable of using the technology available today, but that will equip and motivate them to keep current as new technologies continue to emerge. While this challenge is one of the most formidable before us, it is also destined to continue; some experts suggest this period of rapid innovation will last from 30 to 50 years. We must help the worker understand the importance of developments in technology and how these relate to maintaining a competitive edge in the world marketplace.

There appears to be several facets to this challenge. One facet is how to improve our teaching and learning processes in order to shorten the time and increase efficiency in learning the new technology. Another dimension is how to get members of the current work force, many of whom have learned on-the-job and established their "journeyman" status over many years, to accept automation and learn to change with it. An older work force will be slower in adapting to a rapidly changing economy because it is far more difficult to unlearn old patterns and experience than to learn something the first time.

An always present problem is how to keep educational and training programs current with the newest in technology and to provide training to the proper level. The more rapid the new developments in technology, the wider the gap that develops within companies and agencies in the updating of equipment and processes.

The **Seventh and Final Challenge** will be to raise the awareness of society, its political representatives, and the business community regarding the multiple work force challenges that confront us. This should be the nation's highest priority. To meet the already documented needs for competent workers in the year 2000, Semerad says:

"Business leaders will be required to understand (the problems) and then promote the changes that must take place, not only on a national scale, but in every local community across the country."
While it is a challenge to commit the resources necessary to provide the needed education and training, it is equally challenging for educators and trainers to find the most efficient and effective methods for meeting these needs. The necessity to balance competing resource demands will also require us to provide better career assessment to enable students to choose a field in which they have a relatively high chance for success and to stay with the education and training program to a point of job readiness.

Undoubtedly, the demand for efficiency in the preparation of workers for the year 2000 will lead to new and more competent ways to connect the trained individual with job openings. In a similar manner, larger organizations are developing systems which help managers to identify needed education and training programs for their employees and to place those employees in the needed program in a timely and cost-effective manner. Effective human resource planning will be critical for all organizations, large and small.

Increasingly, the priority for a competent work force will force partnerships that will couple tax generated revenues with private sector contributions and support to maximize the use of limited resources. It will be a challenge to maintain a proper balance between the two sources.

The work force for the year 2000 will be made up of people significantly different from today's population, with significantly different cultural backgrounds and values working in a markedly different work setting. Employers will need workers in numbers and with competencies that will require them to make accommodations like never before in order to attract the right people. Business, industry, and government will have to work much more closely with those providing the education and training to insure greater efficiency in the teaching and learning process as well as in the transition to and from work. Employers and institutions will need to do some serious long-term analysis and planning to prepare for these realities. Semerad suggests that:

"None of the transitions will take place by chance. They will require the most sophisticated planning and resolute implementation to educate, train, retrain, and more important, to instill hope and the necessary work ethic."

Zemke, in his article Training in the 90's, says:

"The future is what we make out of the complexity of the here and now, as well as the thousand and one surprises that invariably lie beyond the next hill."

To meet these seven major challenges, we need to be creative and resourceful. We need to create and nurture innovative partnerships that are designed to recognize the danger signs and act to avert possible catastrophe. We must recognize that no single plan of action, by a single person or a single group, will solve these problems. The opportunity to confidently meet the challenges of the year 2000 can only be realized by a collaboration of business, industry, government, and education efforts. If we have the will and courage to function as agents of constructive change and effect a positive impact on the future, we can keep America working!
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