Delegates to this training computer conference agreed that the scope of economic change is both accelerating and profound and, therefore, will require a wide variety of approaches to human resource development. Training is only a small part of this development. To meet future needs, the conferees discussed and made recommendations in four areas: the transition from school to work, transitions in the workplace, dislocation and reentry, and crosscutting issues (those affecting research in human resource development and training handicapped students). On the issue of the transition from school to work, conferees agreed that it was the responsibility of the schools to provide basic skills and occupational competencies but that employers could cooperate to increase the relevance of these skills and to make the transition more efficient and fair. Conferees considered proposals for providing better labor market information, more counseling and transitional services, and the formation of a National Youth Services Corps. Two themes emerged in the discussion of workplace transitions. The first centered on the view that volume of employee training would have to increase to meet technological changes, although it was doubted that these needs would be met fully, even with tax incentives to encourage employer-provided training. The second theme on employee motivation centered on a variety of merit-based incentives. On the third issue, it was recommended that employees dislocated through technological change receive assistance in finding new jobs and training if needed. Finally, the conference participants recommended that research linking human resources and productivity be increased and that greater efforts be made to tie handicapped persons to the world of employment. (KC)
FINAL REPORT
OF THE
AMERICAN PRODUCTIVITY CENTER
COMPUTER CONFERENCE ON
TRAINING AND PRODUCTIVITY
FOR THE
WHITE HOUSE CONFERENCE ON PRODUCTIVITY
WASHINGTON, D.C.
SEPTEMBER 22-23, 1983
OVERALL RECOMMENDATIONS

(1) In order to establish a context for its deliberations conferees discussed the extent of economic change under way in the American economy. Conferees agreed that the rate and depth of economic change was accelerating and profound. They agreed that the transformation of the economic structure would require an equivalent transformation of the nation's human resources.

(2) The nation's schools do have the primary pre-employment responsibility for education and training. The fundamental transformation of human resource development suggests that employers and public authorities look beyond traditional K-12 schooling and higher education to recognize other aspects to the "system of human learning." Employers, churches, media, the community and the family are all learning centers for lifelong education. Conferees urge that employers and public authorities insure a comprehensive utilization of these learning resources in adapting to the human resource dictates of rapid and profound economic change.

THE TRANSITION FROM SCHOOL TO WORK RECOMMENDATIONS

(1) Employers should be more involved in the preparation of young adults for the transition from formal schooling to work. Primary responsibility for preparing young adults for the transition from school to work should remain with the elementary-secondary and higher education system. These institutions should provide basic skills in the following areas:

Reading Competencies
Writing Competencies
Speaking and Listening Competencies
Mathematical Competencies
Scientific Competencies
Reasoning Competencies
Basic Employment and Job Search Skills
Economic Competencies
Computer Literacy Competencies

In addition, the vocational and higher education systems should continue to provide basic competencies in the various occupational categories. In order to encourage basic skill and occupational competencies that keep pace with changing employer requirements, greater employer involvement in the content and delivery of basic and occupational education should be encouraged. Some examples: a) Employers could be encouraged to "adopt a school" to provide guidance and a closer connection between schools and the business community; b) employers could share or donate equipment, facilities or personnel with educational institutions.
(2) In order to improve the efficiency, flexibility and encourage fairness in the transition from school to work, additional information and services need to be developed to help youths identify appropriate education, training and work opportunities that will encourage a successful transition from schooling to long-term employment.

(3) Cultural values and a sense of civic responsibility are critical to the development of attitudes and habits that are basic to productivity. In addition, available infrastructure for the provision of services and information in the school-to-work transition are inadequate especially for minorities and females. Many conferees concluded that a national youth service corps could provide experience that would facilitate normative development of individual youths, encourage a sense of civic responsibility and provide an effective institutional setting for the delivery of transition and counseling and services to youth. While overall size, scope and funding were not agreed to, it was generally agreed that a national youth service corps should be jointly funded and administered by employers and public authorities.

(4) Some of the conferees suggested establishing School/Industry Councils. In each school district, establish school industry councils composed of HRD personnel and others from industry, small business association representatives, school superintendents, teachers and school personnel responsible for industry liaison. The councils will have three responsibilities: First, they will develop methodologies for acquainting school teachers with the needs of industry and the nature of the world of work. Second, they will develop programs through which industry can provide support to the schools, e.g., lecture series, adopt a school, technology demonstrations, equipment and facilities donations, etc. Thirdly, the Council will serve as the mechanism through which industry can assist with the development of school curriculum and products, and evaluate or "grade" the results. The grading should be formal, occur yearly, and be nationally coordinated so there is a yearly "industry looks at the schools." There should be a common grading scheme so that summary statements and comparisons can be made. Industry participation on the council would be voluntary but the school district would have responsibility for initiating the establishment of the council. Some portion of district funds would be contingent on establishing or having taken reasonable steps to establish the council. If industry fails to participate then the annual reports for that district would simply be "industry is not interested."

(5) There should be voluntary out of school learning programs. The current economic restructuring requires that the attitude about learning be changed from "it is what we did in school" to "it is what we do everyday to make for a better job and better life." There are existing business related programs which industry should take a more active role in supporting, e.g., the Four H Club, science fairs, computer fairs, and junior achievement. Sponsorship, employee release time for participation, and facilities and equipment contributions should all offer the means of industry involvement. Industry already has community involvement programs. The encouragement needs to be toward learning events.
Sponsorship of such events could be promoted by the Chamber of Commerce, the Ad Council or professional and trade associations.

TRANSITIONS IN THE WORKPLACE RECOMMENDATIONS

(1) The pace of economic change, the current investment incentive structure, the structure of American industry, demographic changes and repeated recessions suggest that the United States is currently underinvesting in job-related training. Additional incentives are required to encourage a greater commitment to job-related training among employees and employers. Alternatives recommended by conferees included the following:

   (a) Adjusting the Federal tax code in order to put training investments on an equal footing with capital.

   (b) Encourage senior management to increase the visibility and status in both the firm's planning and line operations.

(2) New incentive structures are required in the workplace to reward individual effort and quality among employees. Employers should carefully target recognition and bonuses toward employees who demonstrate work effort and quality.

(3) Incentives for cooperation between labor and management need to be devised. Employees should be encouraged to identify goals held in common with employers through a greater sense of ownership in enterprises' productivity performance. Such a sense of ownership can be encouraged through a variety of gain sharing plans that tie employee wages, salaries and benefits to the overall productivity performance of the enterprise.

(4) Voluntary labor/management councils should be established. The councils could define training objectives and standards and have authority to collect training levies and even manage training programs.

(5) Competency standards for private HRD professionals could be developed and a certification program initiated.

DISLOCATION AND REENTRY RECOMMENDATIONS

Conferees discussed program formats for dislocated workers that included the following:

(1) Programs should encourage early recognition by the dislocated worker of saleable skills and job prospects to encourage realistic assessments of the worker's saleable skills and possibilities.

(2) Job search assistance should be given early in the transition.

(3) Participation of employers and unions should be encouraged where appropriate, if possible prior to actual job loss.
(4) Retraining should occur only after job search assistance has not resulted in reemployment.

(5) Retraining should be tied as much as possible to prospective employers and available jobs.

Conferees discussed the view that retraining for the unemployed could not in itself provide jobs. There are only enough jobs for roughly one in every ten unemployed people. Conferees did suggest, however, that the unemployed should be made ready for jobs and employer-based training in anticipation of economic recovery.

CROSSCUTTING ISSUES RECOMMENDATIONS

(1) Conferees recommended that public and private support should be provided for the development of a human capital institute. The institute would pursue issues critical to enhancing the economic productivity of adults.

(2) Programs for the developmentally disabled, handicapped and those requiring vocational rehabilitation should be integrated with an employer council with statutory authority to develop curricula and utilize available funds for relevant job training.

Human resources are the primary factor of economic production. Machinery and financial capital are little more than artifacts of the human imagination. Human resource development is the primary lever for improving the nation's overall economic performance and productivity.

Human resource development is a complex process that is profoundly influenced by the nation's heterogeneous culture, political values and economic system. Because we cannot separate people from the economic value of their talents and skills, we cannot separate productivity enhancing human development strategies from their cultural and political context.

Unlike the other factors of economic productivity, human talents are the complex organic results of the full range of individual lifetime experiences. Human productivity is the result of personal history, physical well-being and learning experiences that derive from informal experience as well as formalized learning experience.

The process of human development occurs in a variety of contexts. The community, schools, churches, media, employers and others constitute a system for human development. All aspects of that human development system will need to be utilized to respond to the acceleration and profundity of economic change.

Training is a very small component of the nation's human resource development structure. Formal training is smaller still when compared with self-initiated learning or informal training on the job. In addition, since formal training generally occurs among adults, its effectiveness is largely conditioned by the full range of developmental experience prior to adulthood.

It is for these reasons that the "training computer conference" has included conferees from a variety of human development perspectives. The computer conference has treated "training" as one aspect of human resource development nested in a wide variety of developmental experiences that are critical to the ability of training to improve human productivity. The computer conference has included discussion of public and not-for-profit institutions as well.

Conferees agreed that the scope of economic change was both accelerating and profound. The rate and depth of economic change would require a similarly fundamental reconsideration of the human resource development system.
II. Executive Summary

Conferees discussed and made recommendations in four separate areas.

(1) The Transition from School to Work

Conferees agreed that it was the responsibility of the pre-employment education system to provide basic intellectual competencies and generic occupational skills. At the same time conferees agreed that a greater measure of employer involvement could greatly improve the job relevance of these basic intellectual and occupational skills, especially in an era of rapidly accelerating economic and technological change.

The transition from school to work should be made more efficient, flexible and fair. Conferees considered proposals for providing better labor market information, more counseling and transition services. Many conferees favored the creation of a National Youth Services Corps in order to provide those services and to impact a sense of civic responsibility to young adults.

(2) Transitions in the Workplace

Two themes emerged in the discussion of workplace transitions. The first centered on the view that volume of employee training would need to increase with an acceleration in technological and economic change. Accelerating change would require more employer-provided human resource development. Subsequent discussions focused on the generally accepted view that the structure of financial markets, the pirating of trained workers among firms and a series of recessions would probably insure underinvestment in employer-provided training in spite of increased training needs. Conferees recommended a variety of tax and other incentives to encourage more employer-based training.

The second theme in the work transition computer conference was employee motivation. Conferees were concerned that current incentive structures in the workplace did not provide sufficient incentives to work effort and quality. A variety of merit-based incentives were recommended.

(3) Dislocation and Reentry

Dislocated employees require some measure of assistance in finding new jobs. Effective transitions would be encouraged more easily with employer and, where appropriate, union involvement in the transition process. Moreover, transitioning of dislocated employers with skills and a work history should begin with job search assistance. Training should be utilized only when job search assistance has not resulted in positive transitions.

Training cannot guarantee jobs for the cyclically unemployed. Developmental services should be provided, however, to insure that the unemployed will be ready for a job or employer-based training when economic recovery makes jobs and employer-based training opportunities available.
Crosscutting Issues

The knowledge base linking human resource development to productivity and the nation's overall economic performance is woefully inadequate. Public and private funds need to be dedicated to cooperative research efforts in the area of human economic capital.

The disabled require a stronger link to the world of employment than is currently provided by the various institutions that provide education and services.
III. Recommendations and Discussion

In order to focus on computer conferencing and recommendations, conferees agreed to review issues and recommendations in four separate categories:

(a) The Transition from School to Work
(b) Transitions in the Workplace
(c) Dislocation from the Workplace and Reentry
(d) Crosscutting Recommendations

Each of these categories represent a discontinuity in the formal processes of human development. The transition from school to work represents an extended period of informal experimentation with education, work and training after almost fifteen years of highly structured schooling. The school to work transition is least structured for non-college youth who spend as many as nine years in informal experimentation with education, training and work after graduating from secondary schools and before settling into more permanent work in their mid-twenties. Transitions in the workplace are of much shorter duration. These work to work transitions usually result from the need to adapt skills to economic and technological change or the need to learn new skills as employees move through various phases of career development. The first phase of the computer conference closed with a focus on the transition problems of employees who are dislocated from work and career paths by economic and technological change.

Conferees also considered recommendations in two other areas that were of concern in all the above transition categories. First, there was agreement that the knowledge base in the area of human productivity is inadequate. Conferees suggested the dedication of resources for the study of adult learning and productivity. Second, it was generally agreed that the handicapped and disabled required specific attention in considering the contributions of training to productivity.

THE TRANSITION FROM SCHOOL TO WORK -- DISCUSSION

The basic vocational intellectual, cultural and civic skills available to assist young people as they integrate themselves into the American culture, polity and economy are those given them in formal schooling. The quality of these skills is critical to the success of individual young people as they experiment with different educational options and vocations before settling into a long-term career path around the age of twenty-five.

Youth pass through various stages as they move from school to work. First, upon graduation from secondary school roughly 30 percent go on to college for more formal schooling. Non-college youth usually begin their labor market experimentation immediately passing through a success of casual jobs between the ages of sixteen and nineteen. Between the ages of nineteen and twenty-four an exploration phase occurs during which young workers sample more adult jobs and often enroll in occupational training programs in post-secondary...
schools. It is in this phase that young people begin to identify their occupational education and training during these years; they find jobs or apprenticeship slots that will provide a successful bridge from occupational skills toward work and job-specific training with employers.

In the final stage at age twenty-five and older young people begin to settle into labor market patterns that will characterize their work experience for some time to come. The more fortunate who have had appropriate education, training and experience successfully bridge the school to work transition. These young adults enter into "primary jobs" which are characterized by good wages, job security, and a career ladder based on informal skills acquisition and formal employer-provided training. Less fortunate young adults who began the sojourn from school to work with poor basic skills and who were not able to access appropriate education and training or transitional work experiences fall into secondary labor markets where jobs are characterized by low wages, high turnover, little if any formal or informal employer-based training and no career ladders.

Conferees in the training computer conference expressed a common concern that young adults need more assistance in the transition from school to productive work. The flexibility inherent in the current structure of the school to work transition needs to be preserved and enhanced to improve the quality of entry level workers and to insure fairness in the competition for primary jobs.

Additional assistance for young adults should be provided by both the schools and employers. Employers need to reach out to the schools in order to advise them of their expectations for entry level workers and assist in preparing young adults so that the school can properly equip students for the school to work transition. A variety of voluntary approaches were discussed such as encouraging employers to "adopt a school," as well as various tax incentives and regulatory reforms that would make employee involvement feasible. The conferees also discussed a variety of basic skills that were deemed essential to successful entry level employment. Some ways the private sector is now collaborating with educational institutions:

--- Loan HRD professional or other experts (e.g., engineers) to educational institutions. This can range from a few hours as guest lecturer to a year or more to work on a task force for developing a new course, or assistance with career counseling, remediation, job clubs, etc.

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    institutions. This can range from a few hours as guest lecturer to a
    year or more to work on a task force for developing a new course, or
    assistance with career counseling, remediation, job clubs, etc.

--- Support the development of new courses and curricula with dollars,
    relevant data, and other resources (e.g., Ciba-Geigy financing a science
    course).

--- Provide internships for faculty (secondary and post-secondary) for
    summer or a full year. The teacher contributes to the organization and
    returns to the classroom with state-of-the-art knowledge and greater
    appreciation of current business practices.

--- Donate equipment and materials which includes computers, software,
    training resources, books, audiovisual programs, lab equipment, etc.

--- Participate in community projects that encourage lifelong learning and
    enhance employability skills. For example, "Jobs for American
    Graduates, Inc.", a non-profit corporation created with private and
    public funds, currently has eight states with pilot programs for high
    school seniors (Arizona, Delaware, Massachusetts, Michigan, Missouri,
    Ohio, Tennessee and Virginia). This program helps the non-college bound
    develop employability skills, including remedial education, civic aware-
    ness and job-search assistance.

Conferees were in agreement that the teaching of basic skills was the
prerogative and responsibility of the schools as are basic preparations in broad
occupational and vocational categories. At the same time conferees suggested
that job-specific training is and ought to remain and prerogative and respon-
sibility of employers and that functions of academic and occupational educa-
tion was to provide the basic skills that would allow young adults sufficient
flexibility to experiment with alternative career paths in the school to work
transition and insure that they were pleased for entry level jobs and
employer training.

Conferees also discussed the possibility of providing more flexibility in the
transition from school to work by providing young adults with more choice in
transitional education, training and job-related experiences. It was
suggested that a National Youth Service Corps would be the source of such
guidance and experience and could provide a sense of civic responsibility as
well.

THE TRANSITION FROM SCHOOL TO WORK RECOMMENDATIONS

(1) Employers should be more involved in the preparation of young adults for
    the transition from formal schooling to work. Primary responsibility
    for preparing young adults for the transition from school to work should
remain with the elementary-secondary and higher education system. These institutions should provide basic skills in the following areas:

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- Mathematical Competencies
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In addition the vocational and higher education systems should continue to provide basic competencies in the various occupational categories. In order to encourage basic skill and occupational competencies that keep pace with changing employer requirements, greater employee involvement in the content and delivery of basic and occupational education should be encouraged (e.g., "adopt a school" programs to provide guidance and a closer connection between schools and the business community).

(2) In order to improve the efficiency, flexibility and encourage fairness in the transition from school to work, additional information and services need to be developed to help youths identify appropriate education, training and work opportunities that will encourage a successful transition from schooling to long-term employment.

(3) Cultural values and a sense of civic responsibility are critical to the development of attitudes and habits that are basic to productivity. In addition available infrastructure for the provision of services and information in the schooling-to-work transition are inadequate especially for minorities and females. Many conferees concluded that a national youth service corps could provide experience that would facilitate normative development of individual youths, encourage a sense of civic responsibility and provide an effective institutional setting for the delivery of transition and counseling and services to youth. While overall size, scope and funding were not agreed to, it was generally agreed that a national youth service corps should be jointly funded and administered by employers and public authorities.

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Thirdly, the Council will serve as a mechanism through which industry could assist in evaluating or "grading" school curriculum and products.
The grading should be formal, occur yearly and be nationally coordinated so there is a yearly "industrial looks at the schools." There should be a common grading scheme so that summary statements and comparisons can be made. Industry participation on the council would be voluntary but the school district would have responsibility for initiating the establishment of the council. Some portion of district funds would be contingent on establishing or having taken reasonable steps to establish the council. If industry fails to participate then the annual reports for that district would simply by "industry is not interested."

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TRANSITIONS IN THE WORKPLACE -- DISCUSSION

Conferees focused on two separable issues in their discussion of transition in the workplace: underinvestment in employer-based training and employee motivation.

Underinvestment. The American economic is undergoing momentous change due to demographic, economic and technological factors. The rate of change is always with us but appears to be accelerating at the current time and over the foreseeable future.

Between now and the early decades of the next century the proportion of Americans of working age will grow relative to the school age population and retired population. Education, training, health care and other human development services will increasingly be delivered to adults and employees. These demographic trends suggest an increased emphasis on human development among employees and the likely expansion of employer-provided human resource development.

Unlike the sixties and seventies, labor markets of the eighties and beyond will reflect the declining birth rates of the baby bust. As a result of the post-1957 decline in birth rates only eighteen million new workers will be added to the workforce in the 1980's compared with twenty-four million and thirteen million new workers in the seventies and sixties respectively. While the current overall performance does not suggest the declining numbers of young adults will result in immediate entry level shortages, eventual shortages, in entry level workers can be expected. Moreover, as the number of entry level workers declines, minority and female workers in whom human capital investments have been least, will comprise a greater share of available new workers. Conferees suggested that the demographic realities
would require greater employee involvement in pre-employment education and
greater investments in entry level human resources development.

Conferees also discussed the possible glut of mid-career workers. In 1975,
fourty million workers were in the prime 25-45 age cohort. By 1990 there will
be sixty-three million as the baby boom shoulders it way into middle age.
The glut of middle-aged workers will likely result in a promotional squeeze.
Employers will need to develop alternative incentive structures in order to
avoid the negative productivity effects of employee frustrations. These
strategies will likely require the active participatin in employer-based
human resource development, as well as additional courses focusing on the
adult and aging worker at post-secondary education institutions.

In addition to demograhic factors conferees noted the rapid penetration of
new technology into the production process and rapidly shifting competitive
advantage in the world economy. Conferees were concerned that employer-based
human capital investments were insufficient in view of the demands being made
for the adaptation of the American economy in face of massive demograhic and
economic change.

The sources of the underinvestment of employer-based training were of concern
in spite of the sizeable investment already in place. Employers currently
invest as much as thirty billion dollars in formal employee training and many
times that amount in informal training on the job. This investment far
exceeds all other job training investments throughout the American training
system. In spite of that fact, conferees were concerned that underinvestment
would persist even in the face of mounting training demands. Some reasons
given were as follows:

1. The financing of human capital investments has inherent difficul-
ties. They stem largely from the inability to separate people from
their economic value. It is difficult to separate what is consump-
tion of human services from human capital investments. Unlike
physical capital, human capital is not divisible and reallocable
like financial capital and, to an extent, machine capital as well.
Measurement and human capital accounting are virtually impossible
given the amorphous and organic nature of the human resources.
Without effective measures of value, investment risks are always
uncertain and depreciation difficult. In addition, the value of the
human capital produced is difficult to hold as collateral to back
investment loans.

2. Beggar thy neighbor pirating of trained workers by firms that do not
invest in training discourages training mong firms that are willing
to make such investments but fearful of losing their investments in
trained workers.

3. Persistent episodes of recession discourage employer investment.
There is little incentive to invest in the productivity of employees
through increased training when inventories are already overbuilt.

Motivation. Conferees discussed the importance of employee motivation in
workplace productivity. There was a general concern that incentives in the
workplace no long encourages work effort and quality output. The promotion
of excellence was of general concern in the pre-employment education and occupational training system as well. Conferees applauded the Department of Education's report on "excellence" and endorsed its conclusion. It was generally agreed that similar shifts in the structure of work and work incentives would be necessary to encourage full utilization of the nation's employee resources. Current incentive structures, it was agreed, did not encourage excellence or reward merit. Instead the incentive structure in the workplace appears to have become bureaucratized, rewarding workers equally in spite of differences in individual effort and productivity. A study of motivation in the work setting was suggested to identify conditions affecting the motivation of workers to improve job skills while on-the-job and create a wide range of incentives for workers, management and trainers.

There are three particular objectives for training workers already in the workforce: (a) short term, job specific training to provide the worker with the basic skills needed on the job or for skills related to the introduction of new technology/reorganization, or skills related to the gradual expansion of job expertise need for promotion; (b) more comprehensive training to develop tradesman skills, to develop multiskill capabilities, or for retraining workers whose current position will become redundant in the near future; (c) training to provide a broader job context and a feeling of ownership in the business effort.

Meeting these training objectives requires structures for the delivery of relevant instruction, incentives to insure participation, and competent trainers to insure effective and appropriate curriculum.

Training Structures. Two basic structures are proposed for the delivery of the training. First is the existing inhouse training structure. This structure would be responsible for meeting training objectives (a) and (c). That is, the inhouse system must provide for adapting the individual to the particular changes occurring in that industry and for meeting specific job skill deficiencies. They must also be responsible for providing the employee with a broader job perspective. The objective here is to develop programs through which employees can identify goals held in common with employers and thus developing a greater sense of "ownership" in the business effort. Financial incentives can be important. Profit sharing plans, for instance, can provide motivation and employee involvement. However, in the pride in participating into and contributing to the product can be ample reward. Such motivation is assumed in the variety of job enrichment, quality circles, pilot retraining programs, etc. The important point for us is to recognize the training requirement, i.e., the employee must understand the total job or operation. One example conferees gave is the Communication Workers of America (CWA) new training center in Indianapolis. Courses include digital electronics, computer literacy, office automation, and career planning. Additional centers are planned by the CWA National Training Fund, a nonprofit joint labor/management organization. Funding for the training centers is the responsibility of individual union locals. Most support will come from employer reimbursements to workers of the tuition costs for courses.

The second training structure is the development of labor-management training councils which are voluntary, and which would define training objectives/standards, have authority to collect training levys in proportion to the employee training requirements, and to establish and manage training...
programs. The training would focus on comprehensive job skill requirements. The councils could also certify trainees and training programs.

Another mechanism is set up locally through collective bargaining. A training fund (usually ten cents per worker hour) is administered by management and union trustees to train apprentices and skilled workers, regardless of company size. In other cases, national or regional schools are set up by unions or trade associations and often operate on member contributions.

Incentives. The major problem with training efforts is securing participation. Incentives are required for both employers and employees. Several incentive structures were discussed. Some conferees suggested the development of a training IRA to which both the employer and the employee contribute. The funds could only be used for job relevant education and/or training programs selected by the employee. If the employee quits without using the funds, they revert to a general training fund. That is, the Individual Learning Accounts (ILA) must be used for training. Other conferees believed the employee should be used for training. Other conferees believed the employee should be able to draw down some or all of their own contributions to the ILA plus appropriate interest at or near retirement age.

Trainer Competencies. Finally, training programs will be of little benefit if they are poorly done. There are currently no standards, no set of competencies, required of industrial trainers. Conferees discussed standards for K-12 teachers, and the importance of the industrial trainers in adult education. It seems reasonable that competency standards for HRD personnel be developed and a certification program initiated.

TRANSITIONS IN THE WORKPLACE RECOMMENDATIONS

(1) The pace of economic change, the current investment incentive structure, the structure of American industry, demographic changes and repeated recessions suggest that the United States is currently underinvesting in job-related training. Additional incentives are required to encourage a greater commitment to job-related training among employees and employers. Alternatives recommended by conferees included the following:

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(5) Competency standards for private HRD professionals could be developed and a certification program initiated.

DISLOCATION AND REENTRY -- DISCUSSION

Conferees discussed the uses of training and other assistance to help both workers dislocated by technological and economic change as well as workers who are cyclically unemployed as a result of the overall performance of the economy.

Dislocated Workers. Dramatic shifts in the technological basis of production, the relative price of inputs and international competitive advantage not only change skills requirements for employed workers, they also result in the disemployment of employees. Dislocated employees are valuable human resources whose skills at work experience make them prime candidates for reemployment. At the same time, these workers require assistance in finding new jobs. Experience to date in programs to provide position transitions for dislocated workers suggest that in many cases the provision of job search assistance is sufficient to provide transitions. In other cases age and skill requirements of available new jobs suggest more extensive need for retraining in addition to job search assistance. Programs that are most successful retain the connection between the dislocated worker and his or her employer and union in unionized industry. Continued contact with the employer and union maintains the dislocated worker's contact with primary work-related reference groups and eases transitions.

The size and scope of the dislocated worker problem is uncertain. Available estimates as to the number of workers actually dislocated from their current jobs by technological change and foreign competition range from one hundred thousand to two million workers. Mid-range estimates suggest that there are roughly 800,000 such workers. Available research also suggests that in the absence of special job search and training programs, most of these workers will recover their previous incomes at a rate of roughly 60 percent per annum. Roughly 5 percent of the dislocated workers remain unemployed for extensive periods beyond the exhaustion of unemployment insurance and other benefits. It was noted that the number of dislocated workers may increase with economic recovery as employers react to financial incentives to adapt more quickly to technological changes and shifting competitive advantage.

Unemployed Workers. The number of unemployed workers looking for work now exceeds nine million persons. Substantially more workers are unemployed but no longer are looking for jobs. The discouraged workers are not counted in unemployment statistics. In addition it is generally agreed that economic recovery could leave as many as six to seven million workers unemployed.
because they do not have sufficient skills and work experience to work productively in the jobs that recovery will make available. As a result rates of unemployment will persist above 6.5 percent even with full recovery. Moreover, the inability of these structurally unemployed workers to provide productivity equivalent to their wages sets a ceiling on recovery and the overall growth capacity of the economy.

RECOMMENDATIONS

Conferees discussed program formats for dislocated workers that included the following:

(1) Programs should encourage early recognition by the dislocated worker of saleable skills and job prospects to encourage realistic assessments of the worker's saleable skills and possibilities.

(2) Job search assistance should be given early in the transition.

(3) Participation of employers and unions should be encouraged where appropriate, if possible prior to actual job loss.

(4) Retraining should occur only after job search assistance has not resulted in reemployment.

(5) Retraining should be tied as much as possible to prospective employers and available jobs.

Conferees discussed the view that retraining for the unemployed could not itself provide jobs. There are only enough jobs for roughly one in every ten unemployed people. Conferees did suggest, however, that the unemployed should be made ready for jobs and employer-based training in anticipation of economic recovery.

CROSSCUTTING ISSUES -- DISCUSSION

Two crosscutting issues were of special concern to conferees:

1. Human capital research
2. The handicapped

Human Capital Research. Conferees noted that the knowledge base concerning the relationship between human resource development and productivity is woefully inadequate. Research deficiencies were noted in the following areas:

(1) Little is known about the structure of jobs and skills. We need to know more about skill requirements in different career paths and the jobs and skill structure of individual career ladders. Such information would be of tremendous use in managing transitions from the school to work within the workplace and for workers who are dislocated and unemployed.
Vacancy data is lacking that would allow a better sense of available jobs and projections of future work opportunities. In addition, better data showing the connection between sectoral growth and job openings would provide further information of a similar kind.

Cost-benefit information on the relative merit of different human resource development strategies and their relative impact on productivity is virtually non-existent.

More articulate information on the employment impact and skill requirements associated with changing technologies and shifting international competitive advantage would allay much of the traditional uncertainty and fear that is usually attendant on these kinds of trends.

The Handicapped and Disabled. Conferences were concerned with finding ways to utilize the full talents of the nation's handicapped and disabled population. All too often handicapped and disabled adults are treated as special populations only capable of working in sheltered environments. It was agreed that employers and those institutions that provide pre-employment services to the handicapped and disabled need to be more closely integrated in the development of employability skills and job-related curricula, and to ease the transition from school to work. The Tektronix Company of Beaverton, Oregon was mentioned as an example of a private firm which offers company sponsored training to employees, including the firm's disabled population, to upgrade skills and qualify for promotion.

The conferences discussed model centers for the disabled to assess career education and vocational evaluation programs presently used and to develop model procedures for testing employment potential of handicapped persons in emerging labor market demands.

The primary goal of vocational rehabilitation is to help the disabled person be as productive as possible. While opportunities to participate in all aspects of life should be pursued, the world of work offers the major means for life fulfillment. Through work, the disabled person is transformed from one to whom society, through taxes, much provide to one who provides for him/her self and contributes to the needs of the state through taxes.

A major aspect of rehabilitation process is placement into employment and a major task for rehabilitation professionals is to understand how to gain access to educational, and industry/labor systems in order to create greater opportunities for the employment of handicapped people.

As the private sector becomes more involved with the rehabilitation process, an increasing need will develop for a clearinghouse of information to exchange knowledge concerning recruitment and employment practices of relevance to industry and labor. Of value also would be the availability of computerized data to help increase the capacity of companies and unions to better integrate disabled persons into the work of work.

Public Law 95-602, amended the Rehabilitation Act of 1973, which now authorizes the establishment of model training centers "to develop and use more advanced and effective methods of evaluation the employment potential of handicapped individuals."
RECOMMENDATIONS

(1) Conferees recommended that public and private support should be provided for the development of a human capital institute. The institute would pursue issues critical to enhancing the economic productivity of adults.

(2) Programs for the developmentally disabled, handicapped and those requiring vocational rehabilitation should be integrated with an employer council with statutory authority to develop curricula and utilize available funds for relevant job training.
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