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In approaching its mission, the task force defined occupational training and private industry as follows: the term "private industry" embraces all service and goods-producing industries other than government agencies but includes nonprofit organizations and establishments. The term "occupational training" includes the supportive services associated with skills training, such as basic education, counseling, and testing, as well as skills training itself. The task force concluded that training and education undertaken by business and industry and by public and private institutions, ranging from very informal to highly structured programs, generally have equipped a large part of the work force with the skills needed for employment. However, training and related services have not been sufficiently available and are needed by large numbers of disadvantaged persons to qualify them for job entry and for continuing employment, and by many thousands of young people to help them successfully bridge the gap between school and work. The task force recommended that federal reimbursement of training expenses should be provided in order to overcome economic barriers to training in business and industry and to assure training in areas of national interest. (CH)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

REPORT OF THE TASK FORCE ON OCCUPATIONAL TRAINING IN INDUSTRY

Washington, D.C.

A GOVERNMENT COMMITMENT TO OCCUPATIONAL TRAINING IN INDUSTRY

AUGUST 1968

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Letter of Transmittal

August 1, 1968

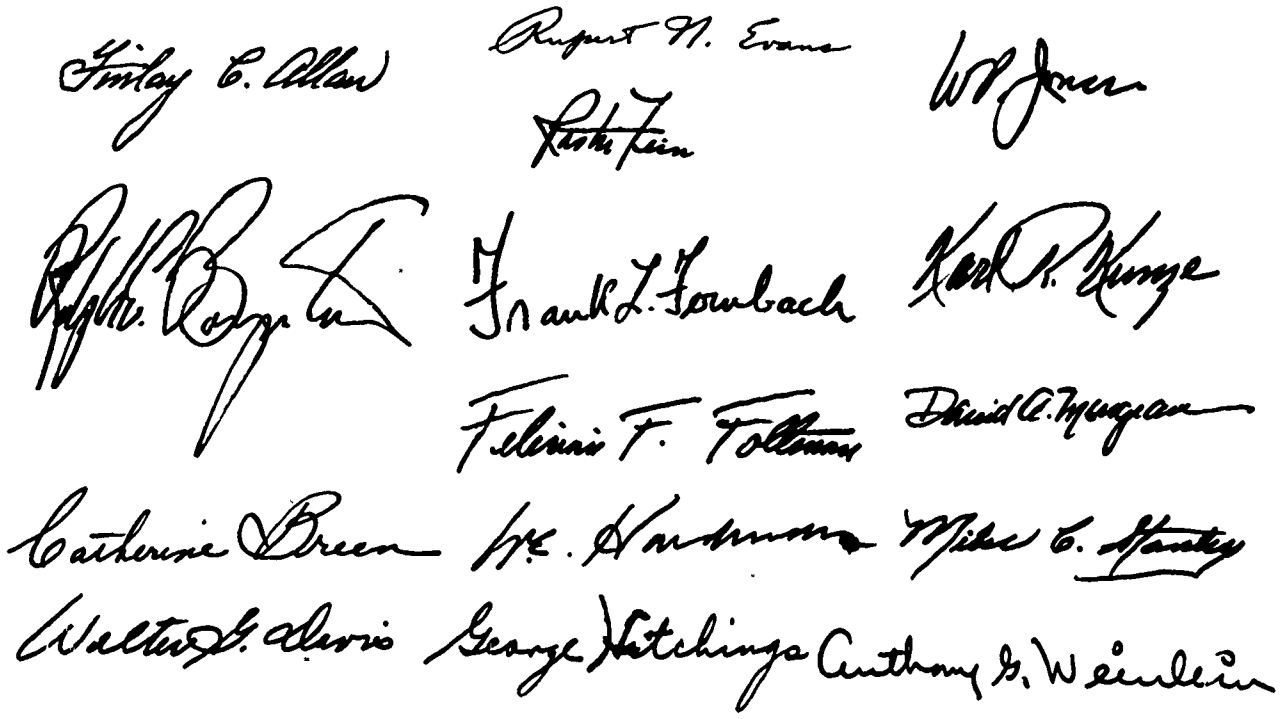
TO THE SECRETARY OF LABOR AND THE SECRETARY OF COMMERCE:

I have the honor to submit to you the Report of the Task Force on Occupational Training in Industry. The Task Force was appointed in accordance with the instructions contained in the 1967 President's Manpower Report to the Congress and began its work on December 1, 1967.

The Report calls for a Federal commitment to adequate levels of occupational training in the United States and provides a framework for action to promote and assist training in business and industry. The Task Force recognizes, however, that continued evaluation and study will be necessary to develop a comprehensive and dynamic national policy on training.

The members of the Task Force appreciate the opportunity to have been of service.

VIVIAN W. HENDERSON, Chairman



THE TASK FORCE ON OCCUPATIONAL TRAINING IN INDUSTRY

December 1967 - June 1968

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NOTE: James G. Patton was appointed to the Task Force but was unable to serve.

ACKNOWLEDGMENTS

The Task Force expresses its deep appreciation for the assistance and generous counsel of the many private firms, labor organizations, government agencies and professional and trade associations which were consulted in the course of its investigation. We wish to thank the consultants to the Task Force for their valuable advice: Dr. Kurt Braun, Professor Stanley Lebergott, and Dr. Garth Mangum. We appreciate the services of Chester Hepler of the Department of Labor who served as consultant on several subjects and Mrs. Maxine Stewart of the Department of Labor who edited the manuscript. We are also grateful to Mrs. Pauline Bresnahan of the Department of Commerce who performed the Task Force's secretarial and administrative duties.

Mr. William Mirengoff and Mr. Davis Portner, representatives of the Department of Labor and the Department of Commerce, were responsible for much of the preparatory work in setting the stage for the Task Force. In these activities they were assisted by the Interagency Planning Committee, consisting of representatives of: The Department of Agriculture; the Department of Defense; the Department of Health, Education and Welfare; the Department of the Treasury; the Bureau of the Budget; and the Office of Economic Opportunity; in addition to the Departments of Labor and Commerce. Special thanks are due to the Department of Labor for the professional staff resources made available to the Task Force and to the Department of Commerce for administrative support and office space.

CHAPTER I

introduction

In his 1967 Manpower Report, the President issued the following directive:

> As the demand increases for workers with special skills, we should take positive steps particularly to encourage private job training efforts:
>
> ... I am directing the Secretary of Labor and the Acting Secretary of Commerce, in cooperation with other Federal agencies, to establish a Task Force on Occupational Training. This task force, with members drawn from business, labor, agriculture, and the general public will survey training programs operated by private industry, and will recommend ways that the Federal Government can promote and assist training programs.

The President's directive was issued against a backdrop of persistent national problems of unemployment and underemployment, with their attendant social and economic ills, paradoxically coexisting with widespread job vacancies in a variety of occupations and industries. For example-

-While the overall unemployment rate for the past 2 years has remained below 4 percent of the work force, substantially higher rates have prevailed persistently among certain segments of our population: among racial minorities, among teenagers, and among workers with limited skills and education.

-In addition to the unemployed, millions of Americans are working either part time or below their educational and skill levels or are earning below poverty-level incomes. Additional millions are neither working nor seeking work but want and need employment.

-Continuing high levels of job vacancies are reported for skilled workers. In a number of professional, technical, and craft occupations, serious shortages of qualified personnel have emerged.

For the future, the pattern of the economy's prospective manpower requirements points to greatly increased demand in those occupations requiring high levels of training. This pattern of projected manpower requirements suggests that the gap between the manpower needs of industry and the skills of the work force will continue in the absence of decisive remedial action. Equally as compelling as the need to staff the Nation's economic growth are the imperatives of social order as well as simple justice, which

demand that maximum use be made of our human resources.

The extent and quality of occupational training in the United States will be a key factor in the Nation's ability to meet its rapidly growing demand for highly skilled workers. A general expansion in our training effort will be essential to prepare for employment the millions of persons, particularly from disadvantaged backgrounds, who will be seeking work in the years ahead.

The Task Force's mandate was to focus on this crucial role of training in meeting the Nation's employment problems. In doing so, however, the Task Force recognized that a full employment policy must rely both on policies to promote economic growth and on training and other manpower policies. Training policies alone cannot create jobs but can only help to qualify the members of the work force for the available employment opportunities. Policies to promote economic growth by monetary, fiscal and other means will be essential if the economy is to produce a sufficient number of jobs to absorb the presently unemployed and underemployed, those coming into our rapidly growing work force, and those who will be displaced in the future by rapid technological change. These employment-generating economic policies, however, will have to be accompanied by adequate training and related services to prepare the available work force for emerging job opportunities.[1]

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[1]The problem of job creation was outside the direct mandate of the Task Force and, thus, was not studied by the group, nor were alternative job-creation policies considered. However, the following members -- Messrs. Allan, Davis, Evans, Fein, Fernbach, Foltman, Henderson, Stanley, and Weinlein -- had this comment on the subject:

Even if buttressed by effective economic and fiscal policies, we do not believe that manpower, training, no matter how greatly expanded, can alone do enough, fast enough, to meet the critical immediate job needs of millions of disadvantaged. Although we unqualifiedly support more training to prepare individuals for employment, we also believe that a nationwide effort to insure rapid job creation is now imperative. This can best be done by instituting a National Public Employment Service Program as proposed in 1966 by the President's Commission on Technology, Automation and Economic Progress and subsequently endorsed by three other Presidential Commissions, by the Urban Coalition, and by many other significant groups.

In our judgment, the commendable training effort of private business must be supplemented by a job-creating public employment program which can quickly utilize hundreds of thousands of disadvantaged in the performance of worthwhile services in the Nation's parks, schools, hospitals, playgrounds, libraries, public buildings, and similar institutions in the Government and private nonprofit sectors of the economy. Public service employment, in rural as well as urban America, is not only our best hope for jobs for older workers who often are bypassed by the private sector, it also will well serve many younger workers as a transitional job experience. Most important, competent studies show that this program could provide hundreds of thousands of useful jobs almost immediately.

Under a public employment program, all participants should have access, of course, to training and supportive services that would increase their employment potentials.

If Federal policies are to attack training and employment problems realistically, they must involve the active participation of private industry--the principal user of the Nation's work skills. Moreover, most Americans working below the professional level learn the skills required for their jobs at the worksite. While many workers learn their jobs in schools and in other institutional settings, training within industry--ranging from the most casual form of "pickup" training to highly structured apprenticeship programs--accounts for the largest part of the Nation's occupational training.

Government-industry cooperation in the field of occupational training has already proven successful in the limited programs in which such approaches have been attempted--the Federal apprenticeship program, on-the-job training under the Manpower Development and Training Act, in cooperative school-work programs, and in the antipoverty program. Thus, the urgency of our manpower problems has been accompanied by increasing evidence that private industry has the potential and willingness to play a significantly larger role in the task of developing the skills of the Nation's work force.

There is a need to assess, therefore, the future role of business and industry in the Nation's total manpower training effort and the shape and scope of Government programs which will be needed to assist and promote private job training efforts. Specifically:

- Should the Federal Government continue to rely increasingly on the private sector in providing occupational training and related manpower services?

- Should the development of specific types of training programs in business and industry be encouraged?

- Is additional Federal assistance or encouragement needed or desirable?

- What institutional forms should such assistance take?

- How can these policies of Federal assistance to industry best be coordinated with educational and other institutional training?

To help answer these basic questions, the Secretaries of Labor and Commerce convened, on December 1, 1967, the Task Force on Occupational Training in Industry. The Task Force was asked to recommend Federal policies with respect to training in business and industry which would be addressed to their role in meeting the long-term economic and social objectives of the Nation rather than to propose solutions only to "crisis" situations.

An additional consideration in establishing the Task Force was the expectation that its focus on training in the private sector would complement the work of two other federally appointed committees,[2] whose work is now completed, which had been charged with reviewing public training programs. The Committee on Administration of Training Programs, which was established in October 1966 at the request of Congress, had been appointed to study the administration of training programs financed with Federal funds to determine "if there is waste, duplication, and inefficiency in administering the programs. . .and, if this determination is in the affirmative, to make recommendations for correction." At the same time, an ad hoc Advisory Council on Vocational Education, established under the Vocational Education Act of 1963, was assessing the progress and objectives of federally supported vocational and technical education programs in order to make recommendations for necessary changes and improvements.

In approaching its mission, the Task Force defined occupational training and private industry as follows:

- The term "private industry," for the purpose of the Task Force, embraces all service- and goods-producing industries, other than Government agencies, but includes nonprofit organizations and establishments.

- The term "occupational training" includes the supportive services associated with skills training such as basic education, counseling, and testing, as well as skills training itself.

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[2]See Volume II, Appendixes F and G for recommendations of these two committees.

CHAPTER II

conclusions and recommendations

Conclusions

I. The Task Force concludes that:

—training and education, undertaken by business and industry and by public and private institutions, ranging from very informal to highly structured programs, generally have equipped a large part of the work force with the skills needed for employment.

However, training and related services have not been sufficiently available and are needed

—by large numbers of disadvantaged persons to qualify them for job entry and for continuing employment;

—by many thousands of young people to help them successfully bridge the gap between school and work;

—to provide sufficient trained manpower in certain occupations and sectors of the economy;

—to provide upgrade training to meet skill shortages, provide opportunities for individuals to advance up the skill ladder, and to open up entry level jobs to less qualified individuals; and

—to meet the large increase expected in the years ahead in our work force and the growing demand for skills requiring specialized training.

II. The Federal Government should make a positive commitment to the promotion and assistance of occupational training to meet these needs. The commitment should be continuous and responsive to the Nation's long-term manpower requirements rather than only to immediate crisis situations.

III. The Federal Government's interest in training extends beyond the manpower requirements of individual firms to include the following:

A. Attaining national social or economic objectives by

1. improving the skills and productivity of the labor force and maximizing economic growth rates;

2. preventing and alleviating skill shortages that affect national security and cause inflationary pressures;

3. minimizing the extent of unemployment; and

4. assuring equal training and employment opportunities to all persons, without regard to race, creed, or national origin.

B. Meeting the needs of individual workers by

1. retraining workers whose jobs may be or have been displaced by technological change and reemploying those who have been displaced by such change;

2. helping persons qualify for entry and advancement in occupations of their choice;

3. encouraging individuals to develop their optimal vocational competence;

4. increasing employability and range of employment opportunities for certain population groups, e.g., hard-core unemployed, new labor force entrants, rural migrants, older workers, the physically and mentally handicapped; and

5. training or orienting supervisors to the specialized needs of these groups.

IV. Since business and industry employ most workers in our economy and have established expertise in occupational training, they should play larger and more effective roles in attaining the Nation's training objectives primarily through the expansion and improvement of their occupational training programs. Employers should also provide leadership in the improvement of public education and training to make these programs more relevant to industry's manpower needs.

V. Various forms of Government assistance are needed to enable business and industry to expand their training in the areas of public interest listed in Conclusion No. 3 above. The payment of financial incentives to employers will be required to expand training to meet the most urgent of these areas of Federal interest. Special financial inducements will be needed to meet the extra and unusual costs of training the disadvantaged and hard-core unemployed.

VI. Although more data are needed to evaluate adequately present training programs, sufficient evidence is available on the Nation's current training efforts and future manpower needs to warrant the following recommendations. It is emphasized that the programs recommended should not be viewed as a substitute for continuing efforts to improve the

basic education system. It may be necessary, however, temporarily to take remedial action such as literacy programs for disadvantaged adults.

Recommendations

A NATIONAL COMMITMENT TO TRAINING

I. Congress should pass a National Training Act which would:

A. Declare an explicit Federal commitment to the attainment of levels of training adequate to meet the Nation's economic, social and security needs and to help individuals quality for the attainment of their career objectives

Such a policy would provide a basis for future Federal action to stimulate and assist occupational training on a continuous basis, in both the private and public sectors, thus anticipating in addition to remedying such problems as shortages in critical skills, technological displacement of workers, long-term unemployment of certain disadvantaged population groups, and regional unemployment.[3]

A national policy on training would also provide a rationale for coordinating, integrating, and consolidating, where appropriate, the many different federally sponsored training programs in industry. The Nation took a major step toward the shaping of a coherent national manpower policy with the enactment of the Manpower Development and Training Act of 1962 and its subsequent amendments. The continued proliferation of Government-sponsored and Government-supported programs, however, requires considerable further coordination.

B. Establish a National Training Council.

This Council, made up of representatives from business, industry, labor, education, training and the general public and supported by a professional staff and utilizing primarily the resources of existing agencies would:

—Assess the need for training in the United States.

[3]The following members—Messrs. Allan, Davis, Evans, Fein, Fernbach, Foltman, Henderson, Stanley and Weinlein—felt that serious study and consideration should also be given to including, as part of this policy, a guarantee of minimum levels of training to all Americans. In his message to Congress of January 23, 1968, the President spoke of the right of every American to earn a living. In order to exercise this right effectively, individuals must have the appropriate education and training to qualify for employment. Consideration should be given to a Federal guarantee of education and training for a specified number of years for everyone in his lifetime. The Government commitment would be to underwrite either some form of education or occupational training—institutional or in industry—for a given number of years extending beyond high school.

- —Make periodic evaluations to determine if the Nation's training needs are being met and if training programs are coordinated and integrated adequately.
- —Recommend policies, programs, and/or legislation to fill significant gaps in our training efforts.
- —Report to the President and through him to the Congress once a year.

FINANCIAL INCENTIVES TO STIMULATE TRAINING IN INDUSTRY

II. Federal reimbursement of training expenses should be provided in order to overcome economic barriers to training in business and industry and to assure training in areas of national interest. Financial assistance, however, should be limited to the following specific purposes:

A. To help firms, associations, or organizations to provide an identifiable program of training, basic and remedial education or other special services for the disadvantaged, the hard-core unemployed, and the underemployed groups in the population, the handicapped, and for new entrants into the labor force to help bridge the gap between school and work.

B. To reimburse the costs of training or orienting supervisory personnel to deal with the specialized employment problems of seriously disadvantaged workers.

C. To enable smaller firms to provide training for their employees, either through improving training in their own establishments or through cooperative or joint training arrangements.

D. To firms, associations, or organizations to train beyond their own requirements for the general needs of the job market in specific areas of Federal interest. These financial incentives should provide for a reasonable return on investment.

E. To establishments, such as those in health services and in other nonprofit sectors, whose financing mechanism does not permit substantial investment in training and where passing on the cost of training to the consumer would be socially undesirable.

F. To firms, associations or organizations to enable them to provide training in critical occupations chronically in short supply.

The largest social and economic gains from Federal expenditures to support training in industry would be obtained from training directed at increasing the employability of special groups in the population and training addressed to eliminating shortages in specific occupations, industries, and different parts of the country.

Direct reimbursements to employers appear to be the most efficient and effective financial incentive devices for achieving these purposes, for the reasons discussed in chapter V. A general tax credit approach and the application of a levy-grant or offset system, were also assessed as possible methods of reimbursing employers for training costs but were considered to be less efficient devices for achieving the specific training objectives outlined above.[4&4a]

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[4]The following members—Miss Breen and Messrs. Evans, Hardman, Jones, Kunze, and Musgrave took exception to the use of direct reimbursement only and the rejection of tax-related incentives expressed in this paragraph and stated their views as summarized below.

Inasmuch as a principal objective of the Task Force is to recommend incentives for business and industry to increase its direct involvement in the Nation's occupational training needs, and since experience with the contract method has often operated to discourage their involvement, other incentive devices and procedures must be sought out which would better serve the needs of a long-range program.

The great variety in size, needs, and capabilities within the private sector, the varying specific objectives of public policy as they relate to changing social and economic conditions, and the wide range of individual abilities and aspirations among workers make it unlikely that any one method is best suited to achieve the goals of a comprehensive national training policy. Appropriate incentive programs should provide a major degree of built-in flexibility and optimum freedom of choice for both workers and employers. Administrative procedures should be as simple as possible, but must furnish a basis for cost-benefit analysis and evaluation of achievements.

Accordingly, we propose a comprehensive training program that offers: (a) selection from among three incentive options to all employers in the for-profit sector; (b) two options for the not-for-profit sector; and (c) suitable occupational choice for prospective trainees. Except for option No. 1 (below), programs would be administered locally by the Labor Department through the offices of the Federal-State Employment Service, which would accept and approve training proposals and refer "certified" trainees in accordance with federally established criteria.

Each employer in the for-profit sector could elect to participate through any of the following options:

Option No. 1. Direct subsidy through negotiated contract: This is the method now used for MDTA-OJT, MA-1, MA-2, and MA-3 and would probably be most suitable for large establishments and associations of smaller employers that have the resources and expertise to negotiate national contracts for sizable numbers of trainees.

Option No. 2. Wage credits for approved employment and training of "certified" trainees: Any employer may submit to the local Employment Service an offer to hire and train one or more (scaled according to size of establishment) "certified" applicants referred by the local office. If the terms and conditions specified are acceptable, the offer may be approved and the trainees referred. For each such worker hired, the employer would be allowed wage credits as a business expense against gross income, on an incentive schedule for length of employment, ranging from 120 percent to 200 percent of the wage cost for periods up to 1 year.

Option No. 3. Wage reimbursement for approved employment and training "certified" trainees: This is identical with Option No. 2, except that the employer could elect to accept a cash payment in partial reimbursement of wages paid to "certified" trainees. The schedule could range from 20 percent up to 80 percent for a full year's employment.

Employers in the private not-for-profit sector could select Option No. 1 or No. 3, under the terms specified.

Since the incentives would invite maximum employer participation, while the number of "certified" trainees would be limited by congressional and/or administrative determination, each prospective trainee would have freedom of occupational choice suited to his needs and abilities. To assure the meeting of national priorities, both the number and target groups of workers to be "certified" each year (disadvantaged, hard-core, youth, etc.) would be set at the national level. Occupational categories for approved training could be designated similarly. Administrative safeguards and details are discussed at the end of chapter V.

[4a]Dr. Fein had the following comments on the above exception:

Direct reimbursements to employers appear to be the most efficient and effective financial incentive devices for achieving the purposes specified in recommendation 2. However, in providing these direct reimbursements to employers, two alternative methods of payment should be offered: (a) negotiated contracts for the payment of specified, reimbursable costs (as in the current MDTA programs); (b) cash payments under a schedule of percentages of wages paid to "certified persons" whom the employer has hired, trained, and retained on his payroll for a specified period (as under a plan of the type illustrated in Option No. 3 of the exception above). Persons would be "certified" by the public employment service where they meet administratively determined criteria for the program, (e.g., hard-core unemployed, disadvantaged, etc.).

Contracting procedures should be simplified as much as possible to lessen the burden on the contractor performing the training and to provide continuity of needed training efforts. For example, the possibility of reducing end-of-fiscal-year confusion and delay through the provision of "no-year" appropriations and "open-end" contracts (contracts without a terminal date) is among the steps that should be explored to facilitate the negotiation for and operation of training projects.

III. Current Federal programs of financial assistance to training in industry should give first priority to assisting employers who agree to hire and train the disadvantaged, hard-core unemployed, and underemployed adults and unskilled youth in our population, in view of the urgent social problems posed by the unmet training and employment needs of these individuals.

Employers should be reimbursed for the extra and unusual costs, effort and risk involved in hiring, training, and otherwise preparing these persons for employment. Only the costs over and above those customarily incurred by an employer hiring and training a new employee should be reimbursed.

Employers would be reimbursed for such costs as:

- counseling and testing, prevocational basic education, skills training and minor medical care and and transportation;
- supervisory and coworker orientation; and
- setting up child care centers or otherwise providing child care services for women participating in these programs.

Incentive awards should be paid to employers of trainees who have completed successfully a specified period of employment under these programs.

In terms of both the magnitude and urgency of the task, the problem of solving the unmet training and employment needs of millions of poor, unskilled, underemployed, handicapped and otherwise disadvantaged Americans should be given first priority in the Nation's occupational training policy. The evidence, cited in chapter III of this report, of withdrawal from the labor force, persistent hard-core unemployment and employment in poverty-level and "dead-end" occupations among adults and high unemployment rates

among young people--particularly minority youth--point to the need, in our society, for a massive program of human renewal. In addition to the serious economic loss represented by this underutilization of our human resources, grave social problems have also resulted. These problems were pointed up in the Report of the National Advisory Commission on Civil Disorders which concluded that problems of unemployment and underemployment in racial ghettos were "inextricably linked to the problem of civil disorders."

Private industry has the capability to make a major contribution in meeting these needs. The usual economic deterrents to training in industry, however, are further compounded by the greater risks and difficulties involved and the additional services needed to hire and prepare the seriously disadvantaged for gainful employment. Government can help overcome these barriers by reimbursing employers for part or all of these unusual costs. This would provide incentives which will reduce the margin of competitive disadvantage which the unskilled and inexperienced normally suffer in a free job market. In addition to financial assistance, the Government should provide such supplementary services as the identification and referral to employers of disadvantaged and other hard-core unemployed individuals. A major step forward has already been taken to meet these needs through the MA-3/JOBS program, which provides funds to offset the added costs of hiring, training and furnishing a broad range of supportive services needed to rehabilitate hard-core unemployed individuals into fully productive workers.

Since regular on-the-job training (OJT) programs have achieved high levels of cost effectiveness, the Task Force strongly urges that these programs not be reduced in size in order to give first priority to special training programs for the disadvantaged, hard-core unemployed. Instead, additional funds should be appropriated for these new programs.

Regulations should be established and effectively enforced to insure that no currently employed workers be displaced as a result of these Government-sponsored training programs.

MA-3 type programs can be strengthened by providing reasonable incentive awards to employers who retain hard-core unemployed persons beyond a given period. The Government should reimburse employers for the cost of providing day care services to enable women in need of work

to participate in industry training programs.

Current "crash" programs are likely to make a significant impact on the problems of persons who are currently poor and out of work, but a long-term commitment to the needs of these individuals will be required if hard-core unemployment is to be greatly reduced or eliminated.

IV. The Government should promote and provide assistance to employers to establish "upgrade" training programs and to conduct manpower utilization studies, specifically:

A. A separate title should be added to the MDTA and specific additional funds should be provided for training and basic education programs in industry designed to raise the skill levels of employed workers.

Training which increases the skill level of already employed workers is a highly efficient and socially desirable way of training for skill shortages and for qualifying individuals for firstline supervisory positions. Such upgrade training can also be used effectively to help the large numbers of underemployed Americans move out of low-level jobs and employment situations that do not make maximum use of their potential. Upgrading currently employed workers would create employment opportunities at the entry level.

The MDTA program is an excellent vehicle to provide such training but a specific title should be added to the Act and supplementary funds should be provided for this purpose. Upgrade training might be provided during off-duty hours or during the trainees' normal work hours or a combination of the two. Adequate incentives should be provided to the trainees if upgrade training is offered during off-duty hours. In addition to MDTA programs, the Federal Government should encourage the establishment and funding of vocational and technical education for upgrade training offered by secondary and postsecondary public educational institutions.

B. To help facilitate these programs and to reduce the number of low-level "dead-end" jobs, the Government should provide also financial support to employers in the conduct of job redesign and job rearrangement analyses addressed to the creation of career ladders where such sequences do not exist, or are clearly inadequate.

Job design and rearrangement analyses of a firm's operations aimed at eliminating low-level jobs with little potential for advancement and establishing career ladders would aid employers in instituting upgrade training programs. Such studies should result in a succession of skill levels starting with an entry job appropriate for training a disadvantaged person and moving through a series of jobs of progressing complexity. In order to insure that such studies meet these objectives, they should be coupled with federally sponsored hiring or training programs.

In assuming the cost of job design studies, the Government should not pay for the rearrangement of plant layout, machinery, equipment or materials which may be necessary for the implementation of the studies.

V. Existing authority under Federal procurement contracts should be used more extensively to support training by contractors and subcontractors who provide goods and services to the Federal Government.

Even though authority exists for contractors who conduct training programs in connection with the execution of Federal procurement contracts, this authority is not widely used. The Federal Government should make more extensive use of its existing authority in this field.

COOPERATIVE WORK-STUDY PROGRAMS

VI. The necessary Federal financial and technical assistance should be made available to schools and employers to expand greatly cooperative work-education programs offered through secondary schools and junior colleges.

Part-time education-part-time work programs have been highly successful in their placement records and in the employment stability and job satisfaction of their graduates. The total number of students in these cooperative work-education programs, however, is small. Enrollments could be expanded successfully severalfold if work-education were promoted in education and in industry. Additional funds should be provided to schools and to employers to expand these programs.

VII. Assistance should be provided also to promote cooperative work-education programs for the adult hard-core unemployed and disadvantaged.

The work-education principle has been successfully applied on a limited scale in Government-sponsored programs which combine the part-time employment of adult workers with part-time attendance at skill centers, vocational schools, and other institutions. The Government should encourage the further extension of these programs in private industry and in local, State, and Federal agencies.

TRAINING SERVICEMEN FOR CIVILIAN JOBS

VIII. To assist individuals leaving the Armed Forces to make the transition from military service to civilian status, the Department of Defense should provide every serviceman who is approaching discharge or retirement with an opportunity to receive training for civilian employment. The serviceman should be permitted to extend his enlistment for a period not to exceed 1 year for the sole purpose of receiving this training.

Similarly, servicemen who lack high school diplomas should be permitted to extend their tour of duty for a period not to exceed 1 year for the purpose of obtaining high school equivalency certificates in order to enhance their opportunities for training and employment in civilian life.

A program of training in civilian skills by the Armed Forces would provide a major source of trained manpower for the Nation's employers as well as assistance to servicemen to find employment readily after completion of their military service. This training should be conducted in consultation with, or in part by, employers in business, industry and public service. Funds should be appropriated that are specifically earmarked for this purpose.

The Department of Defense's Project Transition presently offers training and education to all enlisted personnel on a voluntary basis during their last few months of service. The recommended program would improve upon Project Transition by providing a longer training period and by permitting transfer of trainees to other locations and other branches of the Armed Forces. On-base training could be provided directly by the Armed Forces or by contract with

private firms. To the extent needed, on-base training should be supplemented by MDTA or other on-the-job, institutional or coupled training in both private and public establishments. In times of national emergency, such training programs should be suspended.

Many young servicemen are handicapped in seeking civilian training and employment after discharge because they fail to meet the minimum educational requirements of many employers--a high school diploma. These men should be permitted to elect extended service for this purpose under the same terms and conditions as men who choose to enroll in occupational training courses during the extended period.

TECHNICAL SERVICES AND PROMOTIONAL EFFORTS

IX. The Federal Government should undertake a comprehensive program of technical assistance to employers in setting up and improving training programs and promotional activities designed to increase and improve occupational training in private industry.

In providing this assistance, maximum use should be made of the expertise of organizations in the fields of education and training services, employer associations, unions, and professional societies.

In addition to economic barriers to training, many employers fail to train because of lack of understanding of the need for, and value of, training programs in their operations. Also, small and medium-sized firms, particularly, may lack training expertise. A major program of technical assistance and promotional efforts would provide advice to employers concerning the techniques, administration and planning of training and related programs and would promote the establishment of training programs in industry. The services provided should cover all skill levels and include assistance in the specialized problems of providing work preparation to the disadvantaged and hard-core unemployed. The program should include the establishment of a clearinghouse for information on training programs and methods.

X. Apprenticeship training as promoted by the Federal Government should be evaluated. Consideration should be given to proposals designed to expand this training method while maintaining its quality such as the following;

- Expand the present staff of the Labor Department's Bureau of Apprenticeship and Training with additional qualified personnel well grounded in the needs of industry and thoroughly acquainted with related educational programs.
- Extend apprenticeship programs to include additional occupations and localities not currently being served.
- Improve and make widely available information on apprenticeship openings through an expanded system of apprenticeship information centers and other approaches.
- Encourage members of minority groups to take advantage of opportunities for apprenticeship training.
- Provide basic education, counseling, pre-apprenticeship and other necessary services to help youth satisfy apprenticeship entrance requirements.
- Provide specific related instruction under public auspices to all apprentices in training.

In order to assure that this desirable form of skills training is both up to date and operating at maximum effectiveness, there should be a thorough review of research undertaken on this subject and a determination of the need for additional research should be made. These studies might point to ways of modifying and strengthening apprenticeship and facilitating entry into apprenticeable occupations.

SKILL CENTERS

XI. Skill centers operated by Government, public and private schools, employers and unions should be studied to determine their effectiveness. The need for additional centers in selected geographical areas should be evaluated.

Skill centers, comprehensive facilities which provide training and job-related services in a variety of occupations, have been utilized to train persons whose skills have become obsolete as a result of technological change, unskilled workers, workers in need of upgrading, and others who need skills training. A thorough evaluation of this approach to meeting manpower requirements is needed to determine whether and to what extent various types of skill center programs should be promoted by Government.

REVIEW OF LAWS, REGULATIONS, AND PRACTICES THAT MAY INHIBIT TRAINING

XII. A thorough and prompt review should be made of legal and administrative requirements and practices which tend to serve as barriers to training in industry.

Among the laws, administrative requirements and industry practices that should be studied are occupational licensing regulations that make it difficult for persons to enter particular occupations or to become qualified for them; inflexible practices of employers regarding hiring and training persons with arrest and conviction records; unnecessarily stringent criteria for security clearances of persons employed in private industry under Government contracts which may inhibit employment and training.

Research might be undertaken to determine whether, under the unemployment insurance systems, the risk of an unfavorable merit rating due to excessive turnover serves as a barrier to employer hiring and training of seriously disadvantaged persons.

Title VII of the Civil Rights Act of 1964 and its administration should be reviewed to determine how this law can be a more effective tool in assuring equal access to training opportunities for all persons, without regard to race, color, religion, sex, or national origin.

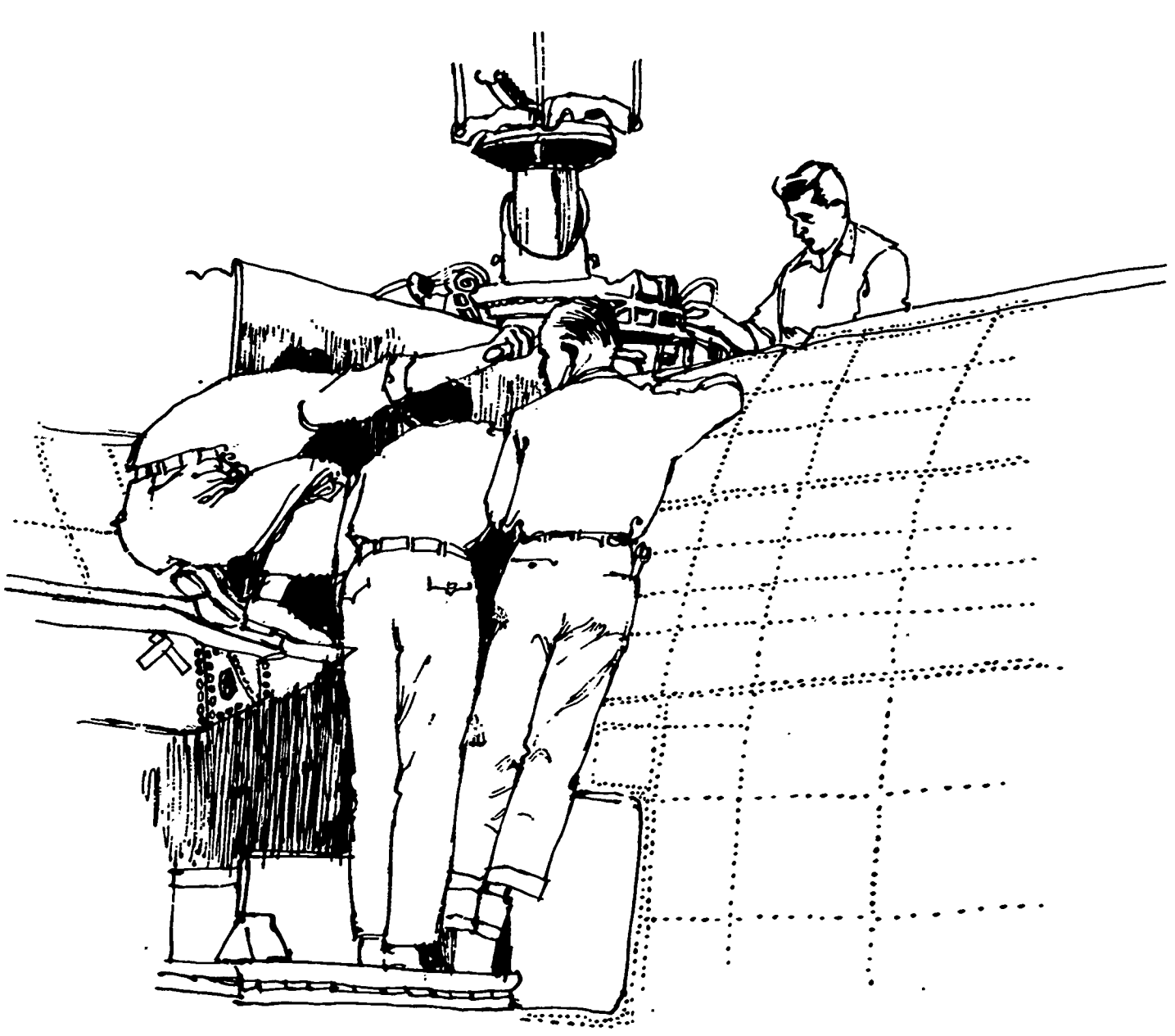
RESEARCH AND INFORMATION NEEDS

XIII. A significant expansion of research on training should be undertaken in order to provide a basis for developing and evaluating policies and programs.

A major research effort is needed to fill such basic informational gaps as the need for detailed and up-to-date information on the nature, extent, cost, and quality of occupational training in private industry; the relative effectiveness of the various types of training programs; and assessment of the current Government-sponsored training programs and the projected training needs of the Nation's economy. Research also should be undertaken to identify additional methods of stimulating more training in industry and to determine whether current laws or administrative practices are barriers to expansion of training.

CHAPTER III

the status of occupational training



a. the nation's training needs and problems

A. The Nation's Training Needs and Problems

Two central needs emerge from an assessment of the Nation's current training effort: the need to enable the jobless and underemployed to obtain meaningful and rewarding employment and the need to meet the employer's requirements for workers.

Among the most critical problem areas are the persistence of hard-core unemployment among adults, high levels of youth unemployment, special training needs of persons in urban ghettos and rural areas, the need for upgrade training to help persons advance from low-level "dead-end" jobs, and continuing shortages in some occupations.

For the future, the Nation's training efforts will have to be geared also to meet the needs of

- millions of new young workers who will be entering the labor force
- many women who will need training or retraining for reentry into the work force
- persons whose skills will become obsolete as a result of technological change
- the Nation's employers whose operations will require a changing occupational mix and higher skill levels
- persons to whom racial discrimination has been a barrier to training and employment

It is recognized that training alone will not meet these anticipated needs but must be accompanied by high levels of economic growth to insure employment expansion to absorb the additional labor force.

The following data from the 1968 Manpower Report of the President and studies of the Bureau of Labor Statistics are included in this report to provide some indication of the magnitude and nature of the problem areas and to focus on the training which will be required to help solve these problems.

The Underemployed

Programs and related efforts to meet training and employment needs of disadvantaged workers with long periods

of joblessness now have top priority among the Nation's manpower programs. Considerable information is available regarding these unemployed--how many, who and where they are, and some of their major problems. Unemployed workers differ not only in the length of time they are out of work but also in their financial needs and responsibilities, work experience, place of residence, education, and skills, and other personal attributes that greatly influence their chance of employment and their needs for training and other services.

Unemployment in an Average Week[5]

The 3 million unemployed persons in 1967 were about evenly divided between males and females. However, the unemployment rate for males (3.1 percent) was lower than that for female (5.2 percent).

The need for training and work experience is underscored by data which show that certain population groups are more susceptible to unemployment than others.

By Age: Young persons with little work experience and persons with the least amount of education and training have the highest unemployment rates. About 840,000 or nearly 30 percent of the unemployed, were teenagers (16-19 years of age). Their unemployment rate was 13 percent--more than 3 times the overall rate of 3.8 percent. Persons 20-24 years of age accounted for another 510,000 of the unemployed, or one-sixth of the jobless total. The unemployment rate for this group was 5.7 percent, 1-1/2 times the national average. Offsetting the high jobless rates for youth are much lower unemployment rates for mature workers. In 1967, there were about 825,000 unemployed men aged 25 and over, and the jobless rate for this age group was only 2.0 percent. The comparable figures for women were 800,000 and 3.7 percent.

By Race: Unemployment rates for Negroes are much higher than those for whites. One-fifth of the unemployed (640,000) were nonwhites (about 92 percent of whom are Negroes). The nonwhite unemployment rate, at 7.4 percent, was more than double the white rate of 3.4 percent.

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[5]The Current Population Survey conducted by the Bureau of the Census and analyzed and reported by the Bureau of Labor Statistics provides monthly estimates of unemployment, labor force participation, and other relevant measures for many different population groups; annual averages of these monthly data show, for example, how many and what proportion of workers are unemployed in an average week.

The rates for nonwhite adult men and women were about double those for whites, but the nonwhite teenage rate (26.5 percent) was nearly 2-1/2 times the rate for white youngsters.

By Occupation: One's chances of being unemployed are also greatly affected by the kind of work one is trained to do. The highest incidence of unemployment occurred among unskilled nonfarm laborers. On the average 7.6 percent of this group was unemployed in 1967, twice the rate of the total labor force. The next highest unemployment rate--5.0 percent--was for semiskilled operatives. A third group of workers with relatively high unemployment was service workers, many of whom are unskilled or semiskilled; their rate was 4.5 percent. Skilled craftsmen, who require the longest training time among blue-collar workers, have an unemployment rate that is below average--2.5 percent. The rates for clerical and sales workers were just about 3 percent. Professional and technical workers and managers, officials, and proprietors had unemployment rates as low as 1 percent.

By Marital Status: Unemployment among married men was very low. Although the 685,000 unemployed married men in 1967 represented 45 percent of total male unemployment, their rate of unemployment was only 1.8 percent. Slightly more than 700,000 of the unemployed males were single men, and 121,000 were widowed, divorced, or separated. Among women, about 728,000 were married and 257,000 were widowed, divorced, or separated. About one-third of the unemployed women (484,000) had never been married.

By Educational Attainment: Although unemployment is not confined to persons who lack a high school or college degree, a close relationship exists between education and unemployment. For example, in March 1967, just over one-tenth of all unemployed persons had a year or more of college. The remainder were divided nearly evenly among three groups: those with an eighth grade or less education, those with 1 to 3 years of high school, and those with 4 years of high school. The unemployment rate was highest for high school dropouts--even higher than for those with only an elementary school education. Persons in the latter category tended to be mature workers who completed their formal education 10 years or more ago and had since acquired the skills and experience needed to obtain relatively stable jobs.

High school dropouts tended to be young; they had recently entered the labor force and were searching for acceptable employment, armed with few, if any, skills and with little or no work experience.

By Previous Work Status: Workers who had lost their jobs account for only a part of the unemployed. The unemployed also include both workers who voluntarily leave one job and look for another. Some are jobless because they have just entered the job market for the first time or after a period outside the labor force.

In April 1968, for example, less than half (44 percent) of the unemployed had lost their previous job; about 15 percent had voluntarily left their previous job and immediately had begun to look for another. Nearly one-third (30 percent) had reentered the labor market to look for a job, and 11 percent were persons who had never worked before.

Job loss, however, was the primary reason for unemployment among adult men 20 years of age and over; 6 in every 10 were out of work for this reason. Only 2 in 10 were entrants into the labor force--virtually all reentrants--and 15 percent had left their last job. By way of contrast, nearly two-fifths of all unemployed adult women were labor force entrants--nearly all reentering after a period of absence--and nearly three-quarters of the unemployed teenagers were labor force entrants.

Unemployment Throughout the Year [6]

The unemployment rates in an average week just described do not tell the full story of the impact of unemployment on people. A much more meaningful measure is work-experience data that show how many weeks or months workers were out of a job during the year. The amount and length of unemployment shown by these data make plain why the country needs large-scale training, education, counseling, and other programs aimed at equipping the hard-core unemployed for productive work and aiding their job adjustment.

Over 11 million American workers were jobless and looking for work at some time during the prosperous year

[6] The Current Population Survey is the source of data on the employment and unemployment experience of the country's workers throughout an entire calendar year. This work experience information is collected once a year. It provides estimates of the total number unemployed for as long as a week at any time during the year, not merely the number unemployed in a particular week. And it shows the total number of weeks of unemployment experienced by workers during the year, either continuously or in different spells, whereas the monthly data on duration of unemployment show only the number of weeks workers were continuously unemployed up to the time of the survey.

1966. This was almost four times the average number unemployed in any one week of the year. The total number out of work during 1967 was probably somewhat higher. Great progress in reducing unemployment has been made, however, since 1961, when the current economic upturn began. During that recession year, about 15 million workers had periods of unemployment.

Joblessness had hard and unequivocal implications for the 2.7 million workers who were out of work for 15 or more weeks in 1966--over a fourth of the year. More than 1 million of these workers--in cities, towns, and rural areas across the country--spent half or more of 1966 jobless and looking for work.

The 3.4 million workers with 5 to 14 weeks of unemployment in 1966 may be regarded as an "in-between" group. For many of these workers--as well as for those with still briefer periods without work--unemployment was a transitional experience, often cushioned to some extent by unemployment insurance and other benefits. But this group undoubtedly included many workers for whom unemployment of 14 weeks, or even 5 weeks, had serious financial consequences.

Least hard hit by unemployment are workers who were jobless 4 weeks or less during the year. In 1966, 45 percent of the unemployed were in this group. Presumably, unemployment for many of these workers was due largely to voluntary job changes, some delay in finding work upon entry or reentry into the labor force, and the usual seasonal layoffs. Many secured jobs without outside help. And for those who sought or needed assistance through manpower programs, this help was limited in most cases to job placement services.

These data concerning workers and the weeks of unemployment they experienced throughout the year provide by far the best picture of the impact of joblessness on individuals and of the magnitude of the groups most subject to unemployment and most likely to need training or other manpower services. The low rate of unemployment in an average week among men in the central age groups, who are generally the most employable and have the heaviest family responsibilities, sometimes creates a sense of complacency about the training and employment needs of this group. Such complacency is ill-founded. Clearly, the number of men of prime working age who are affected severely by joblessness is much higher than is indicated by the monthly unemployment data. And, to a lesser degree, the

same is true for women. Close to 1.3 million men aged 25 to 44 had 5 or more weeks of unemployment during 1966, almost 6 times the number (226,000) shown by the monthly surveys. For men of this age group out of work 15 to 26 weeks, the differential between the two estimates was even greater (more than sevenfold or 342,000, compared with 48,000).

With respect to the groups most affected by unemployment—the young, the poorly educated, the unskilled, older workers, and minority groups—the unemployment data based on experience during the year as a whole tell roughly the same comparative story as do the monthly estimates. However, the incidence of extended unemployment is shown to be greater in all groups than is suggested by the monthly figures for these groups.

The widely noted 2-to-1 ratio in the extent of unemployment between nonwhite and white workers is borne out once more by these data. About 12 percent of all nonwhite workers had 5 weeks or more of unemployment in 1966, compared with 6 percent of all white workers. Most seriously affected were the nonwhites who were unskilled laborers—1 out of every 5 was unemployed for 5 or more weeks during 1966.

The major achievements of the past 5 years in reducing unemployment—particularly long-term unemployment—must not be lost sight of, however. Despite very large additions to the work force between 1961 and 1966, the proportion of workers unemployed for 5 or more weeks of the year was cut nearly in half. The general expansion in employment--aided by training and other programs focused on workers with persistent difficulty in finding jobs--brought an even sharper drop in the proportion of workers unemployed 15 weeks or more (from 6.3 percent in 1961 to 2.8 percent in 1966). The improvement was sharpest in the proportion unemployed 27 weeks or more (from 2.8 to 1 percent). Both white and nonwhite workers benefitted from this reduction in extended unemployment.

The proportion of workers experiencing repeated spells of joblessness has also dropped significantly. In 1961, 6.2 percent of the work force had two or more periods of unemployment during the year; by 1966, the figure had fallen to 4 percent.

Nevertheless, the proportion of workers with repeated spells of unemployment did not decline as much, in relative terms, as the overall proportion of workers with many weeks of joblessness. This statistical finding has both economic and policy significance. The improvement

in economic conditions, reinforced by manpower programs, has been particularly effective in reducing the number of workers continuously unemployed for long periods; it has, for example, made it much easier for displaced workers to find new jobs. But apparently there has been less progress in reducing irregular employment of unskilled workers or in mitigating seasonal layoffs.

Most workers who experience extended unemployment are out of work two or more times during the year. Of the men out of work 15 or more weeks in 1966, 7 out of every 10 were unemployed at least twice during the year. These findings underline the need for enlarged efforts to enable the chronically unemployed to qualify for and obtain jobs that promise continuity of employment. There is also a need to explore ways of helping these workers to keep the jobs they get.

Unemployment in Poverty Neighborhoods

Just as unemployment is concentrated among certain population groups, it is also concentrated in certain geographic areas. The following data, recently released by the Bureau of Labor Statistics, relate to poverty neighborhoods in the Nation's 100 largest standard metropolitan areas taken as a whole.

The 6.6 million workers (16 years of age and over) living in big-city poverty neighborhoods had a jobless rate of 7.0 percent in the first quarter of 1968. Their rate was twice that of persons living in the other urban neighborhoods (3.4 percent) and was also much higher than for the Nation as a whole during the quarter. Significantly, the widest gap in unemployment rates between poverty and other neighborhoods was for adult males--5.5 percent compared with 2.3 percent. Teenagers in poverty areas also fared poorly; one-fifth were jobless in the poverty neighborhoods, compared with one-ninth of the teenagers in the other areas.

About 15 percent of the Nation's unemployed workers lived in poverty neighborhoods of large cities in the first 3 months of 1968. Reflecting the disproportionate concentration of Negroes in these neighborhoods, about half of the unemployed were nonwhite.

Negroes had higher jobless rates than whites in both the poverty and other urban neighborhoods. In poverty neighborhoods, the rate for Negro men was 6.3 percent, compared with 5.0 percent for white men. (It was 4.2 versus 2.2 percent in the other neighborhoods.)

Poverty neighborhood dwellers not only had a higher incidence of joblessness but were more likely to have menial, low-paying jobs when working. Over half the employed poverty area workers were in semiskilled, unskilled, and service jobs, compared with 35 percent in the Nation as a whole. The concentration at the lowest end of the occupation scale was especially marked for Negroes in poverty neighborhoods.

The Underemployed

Training and other manpower policies are and must be concerned with more than long-term unemployment. Individuals who chronically are able to get only part-time jobs or irregular work are likely to be worse off than many workers with even fairly extended periods of joblessness. People so discouraged or alienated that they were not even looking for work may well be in the worst situation of all.

Part-time employment of workers desiring full-time jobs, which also can be thought of as part-time unemployment, is the most easily measurable form of underemployment. Workers with jobs below their educational or skill level are another significant group of the underemployed. For example, persons with a college education who are working involuntarily in relatively low-skilled jobs because of a lack of suitable employment opportunities or because of discriminatory hiring practices are underemployed. Another example is laid-off miners who are working as subsistence farmers. However, the definition and measurement of this group involve difficult theoretical and practical problems. Much further work will be required before the numbers and kinds of workers involved in this waste of skills can be determined.

About 2 million workers were on part time for economic reasons in an average week of 1966. The curtailment in employment and earnings opportunity for these workers was sizable. On the average, they were able to get only about 20 hours work per week. A bare majority of these workers were usually employed full time but were temporarily on part time, most often because of slack work. Nearly a million, however, were able usually to obtain only part-time work, for reasons shown in the following tabulation:

Economic reasons for part-time work	Number of workers on part time for economic reasons, 1966		
	Total	Usually work full time	Usually work part time
		(000's)	
Total	1,960	1,009	951
Slack work	881	710	171
Material shortage	27	26	1
Repairs	34	34	--
New job	177	160	17
Job ended	74	62	12
No full-time work available	766	16	750

Most persons who normally work only part time are in trade and service industries, including household employment. The majority are women. Among the part-time workers who usually work full time, however, the majority are men, and more of them are in manufacturing than in any other major industry group. Nonwhite workers are disproportionately affected by part-time employment, as by total unemployment. They are entrapped particularly often in chronic part-time work, mainly in service jobs.

The Nonparticipants

Many people who are neither working nor seeking work want and need jobs.[7] Evidence to this effect has accumulated in recent years. For example:

—The proportion of men below normal retirement age who are out of the work force has been rising, especially among nonwhites.

—The high proportion of youth in slum areas who have dropped out of school are neither working nor seeking work.

—A higher proportion of persons with limited education are out of the labor force, compared with persons with more education.

[7]Such persons are not counted among the unemployed, nor are they considered to be part of the labor force.

—A large number of older workers--including many with retirement benefits--both need and wish to continue in paid employment.

—Many women who need to work, either to support themselves and their families or to supplement their husband's income, report they cannot do so for lack of child-care facilities.

—Illness and disability prevent many persons from working at many physically demanding jobs and sometimes keep them from working at any job. Long-term disabilities also tend to discourage persons from even looking for work.

To get more definite information on how many people not in the labor force want to work and the reasons why they are not seeking jobs, the Department of Labor made a series of special studies. The most comprehensive of these studies showed that in September 1966, 5.3 million men and women— 1 out of every 10 in the labor force—said they wanted a job. The other 9 out of 10 said they did not desire a regular job. The information obtained from the latter group, however, did not permit probing into the conditions under which they might consider working nor into their possible need for additional income.

When those desiring work were asked why they were not looking for jobs, the reasons most often cited were ill health, school attendance, family responsibilities, or belief that they could not find jobs. Presumably, the impediments to jobs could be overcome for many of these people by better health care, arrangements for child care, school-work programs, referral to suitable jobs, and other services.

The three-quarter million people—over 250,000 men and nearly 500,000 women—who were not looking for work because they believed it would be impossible to find are probably the group of greatest concern from the viewpoint of manpower policy. Presumably, they had given up the search for work after fruitless and discouraging job-finding efforts. In addition, nearly as many women cited inability to arrange for child care as the specific reason why they were not looking for jobs.

It is also significant that close to 400,000 of the group not looking for work because of ill health or physical or mental disabilities said they would take part-time or light work if it were available, or said they would seek work when their health improved.

The most recent survey regarding persons not in the labor force was taken as part of the Current Population Survey for the week ending February 18, 1967. Of the 2.3 million men 20 to 64 years old who were not in the labor force in that week for reasons other than going to school, about 900,000 or 4 out of 10 could be potential additions to the labor force. About 470,000 were only temporarily out of the labor force and planned to return on their own initiative in a short time. Another 430,000 were potential recruits, since they wanted to work and were out of the labor force for a variety of reasons; of these, 140,000 would need special job arrangements to accommodate a medical condition. Poor health is by far the most important factor which prevents men in the prime working ages from participation in the labor force. Many of the other men who reported they "wanted a job now" could be considered "discouraged" workers. About 13 percent of the men who wanted a job said they were not looking for work, because they could't find work, and about the same proportion reported lack of education or training, no transportation to available jobs, or that they were too old.

Shortages in Specific Occupations

While there are thousands of job vacancies among the Nation's employers, a high percentage of them remain unfilled for only a short period. Employers fill them either by upgrading people already on their own payrolls or by hiring persons who were unemployed, not in the labor force or employed by other firms. In recent years, however, there have been chronic shortages in such occupations as engineers, draftsmen, health service workers, tool and die makers, machinists, electricians, and computer programmers. No regular statistics on job vacancies are available in the United States, although the Department of Labor and State employment service agencies have had some experiments to collect vacancy data by occupation. Some data are available from State employment service agencies; they are based on unfilled job orders from the employment service offices and assessment of employment trends by local labor market analysts. A periodic "roundup" of occupational demand-supply information has been made by the Department of Labor to indicate shortages in particular geographic areas.

Future Training Needs

The magnitude of the Nation's training needs is illustrated by projections of the number of new workers who will be entering the labor force in the years ahead. By the end of the 1970's about 100 million persons will be in the labor force, compared with about 82 million at present. During this 12-year period, about 40 million new young workers will enter the job market. In addition, about 4 million women will be expected to reenter the labor force, expanding labor force entrants to roughly 44 million. At the same time, about 26 million persons will be leaving the labor force because of retirement, death, marriage, child-bearing, etc.

A labor force balance sheet through the 1970's looks roughly like this:

	(millions)	
Number of workers in 1968 (total labor force)		82.3
Subtract:		
Withdrawals from the labor force because of death, retirement, marriage, childbearing, etc.	-26.3	
1968 workers still in the labor force in 1980		56.0
Add:		
Young workers (age 16-29) coming into the labor force through the 1970's	+39.7	
Women returning to the labor force through the 1970's	+ 4.2	
Number of workers in 1980		99.9

A great many of the 40 million new young workers entering the labor force will need training, orientation, safety instruction, and a variety of supportive services to help them in the transition from school to work. It is encouraging to note that these new young entrants will be better educated than any similar group in the past. It is estimated that about 80 percent of them will have completed at least high school, one-third of them will have had some college education, and one-fifth will be college

graduates. Nevertheless, about 8 million of them, one-fifth of the total, will have dropped out of school before completing high school. Many of the dropouts may need remedial preemployment assistance to make them employable in our increasingly more complex world of work. Many of the more than 4 million women returning to the labor force also will need training or retraining to qualify them for employment. In addition, there will continue to be a great many other adults, especially in urban ghettos, who will be needing training and supportive services.

Not only will great numbers of workers need to be trained in the years ahead but the skill levels required by the Nation's employers will be rising. In general, employment growth will be fastest among those occupations requiring the most education and training to enter. Projections of occupational requirements developed by the Bureau of Labor Statistics indicate an increase of about 28 percent in the need for white-collar workers between 1966 and 1975.[8] Among white-collar occupations, the most rapid increase in requirements will be for professional and technical workers. Manpower requirements in this occupational group may grow twice as rapidly (38 percent) as the average for all workers (20 percent). Requirements for both managers and officials and clerical workers also are expected to increase rapidly, by nearly one-fourth, and the need for sales workers should rise by more than one-fifth. Requirements for blue-collar workers are expected to rise by 11 percent between 1966 and 1975. Among blue-collar workers, the most rapid increase in requirements will be for craftsmen (19 percent)--about the same average increase projected for employment as a whole. Requirements for operatives will increase more slowly (8 percent), and little change is expected in the demand for laborers. The need for service workers is expected to rise by nearly one-third.

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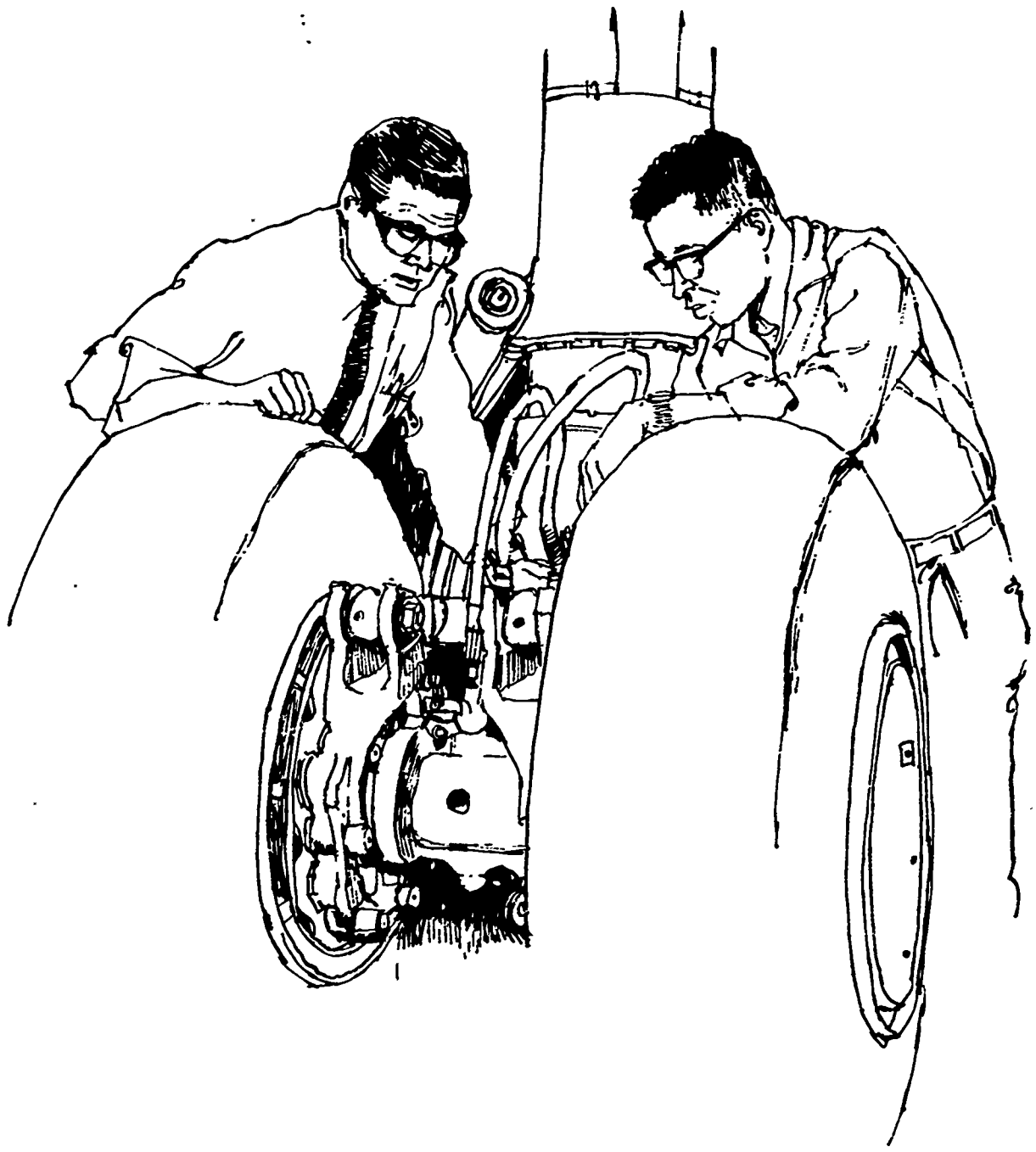
[8]These projections assume a 3-percent unemployment level in 1975.



b. industry's role in occupational training

B. Industry's Role in Occupational Training

It would be misleading to suggest that the current and prospective manpower problems cited in the previous section can be met and overcome through occupational training alone. Training is only one means, along with education, employer recruitment policies, occupational information programs and other aspects of job market operation, of meeting the staffing requirements of industry and the employment needs of individuals. For most jobs, however, training in some form, is indispensable. And since specific work preparation generally occurs within the place of employment itself, training in industry is and will be a key factor in the Nation's success or failure in meeting its manpower problems.

Most American workers below the professional level learn the skills required for their jobs at the worksite; this training is often unstructured and informal. Other workers acquire their skills in formal programs conducted in schools and in various other institutional settings. Many are trained through a combination of informal and formal methods. When viewed in the aggregate, however, it is clear that training within industry—ranging from the most casual form of "pick-up" training to highly structured apprenticeship programs—accounts for the largest part of the Nation's skills training. The growth in manpower requirements in the years ahead suggests a need to expand further industry's contribution to the training of the work force. More formal, structured skill development programs in industry may be necessary to meet changing occupational needs. In addition, increasing public concern with the employment problems of disadvantaged and the persistence of hard-core unemployment are also likely to affect the nature of industry training programs.

This section will summarize, in broad outline, the information reviewed by the Task Force concerning the present configuration of training in American industry. Current, comprehensive data are lacking on the extent and scope of occupational training within the private sector. This section relies principally on the surveys conducted by the Department of Labor within the past 5 years as well as on other recent studies of limited scope. The discussion will include: the forms of industry training, the significance of such training in specific industries and occupations, employers' training costs, and recent and prospective trends in private industry training programs.

Formal Programs[9]

Formal occupational training programs in industry have played a relatively limited role in the training of American workers who have less than a college education. In April 1963, the Department of Labor conducted a nationwide survey to determine how noncollege-graduate American workers have learned the skills needed for their present occupations.[10] Only 30 percent of the workers canvassed indicated that they had learned their current jobs through formal training programs, i.e., in schools of all kinds (including full-time company training schools of at least 6 weeks' duration), apprenticeship, and the Armed Forces.[11] It should be emphasized that "formal" training in this survey was narrowly defined—being limited almost exclusively to training involving a substantial amount of classroom instruction. The survey found that a larger proportion of workers—approximately 56 percent—had learned their jobs through on-the-job training.

Owing to the limited sample size, it was not possible to determine what proportion of the workers surveyed learned their jobs specifically in formal industry programs. However, information on the nature and extent of industry's formal training programs was developed in a survey of employers conducted a year earlier by the Department of Labor.

The 1962 employer survey indicated that formal industry training programs were conducted in a relatively small proportion of the Nation's establishments: only 1 of every 5 establishments sponsored some type of formal training and only 7 percent of the workers in the establishments

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[9]Except where noted, this section is based on Training of Workers in American Industry (Washington: 1964), a report on a nationwide survey of employers conducted by the U.S. Department of Labor in the spring of 1962 to provide information on employer-sponsored formal training programs. The survey, noted as "the 1962 survey" in this chapter, defined formal training as "any prearranged formal system of instruction sponsored by the employer or by employer-union agreement and designed to better equip employees to perform their current or future job duties."

The establishments surveyed employed approximately 37 million workers or slightly more than half of total employment in 1962. A total of 2.7 million employees--about 7 percent of all employees in the establishments surveyed--were enrolled in one or more programs at the time of the survey. When counted in each program in which they were enrolled, they represented a total of 3.6 million trainees. These data refer to persons in training at a particular point in time—the day in spring 1962 on which the employer completed the survey questionnaire. The cumulative total of persons enrolled in training programs at any time during a given period would be substantially higher.

[10]Formal Occupational Training of Adult Workers (Washington: 1964) The primary focus of this survey was the training background of workers between the ages of 22 and 64 who had completed less than 3 years of college. This survey is referred to as "the 1963 survey" in this chapter.

[11]These findings may understate to some extent, however, the role of formal training during a person's worklife, since respondents were asked how they had learned their current job rather than how they learned their occupation or an earlier job from which they may have progressed.

surveyed were actually enrolled in one or more industry training programs at the time of the survey. Of the persons enrolled in industry training programs, only about 40 percent were taking courses designed to provide substantive skills; approximately one-half were receiving safety training; and about 8 percent were enrolled in general orientation programs. In the area of substantive skills training, the largest groups of workers were enrolled in courses in administrative and supervisory practices (10 percent), sales training (7 percent), and instruction in some aspect of the skilled trades (6 percent).

The likelihood of a firm's providing formal training programs varied directly with its size. Only 11 percent of the smallest establishments, as contrasted with almost all of the largest establishments, sponsored some type of training. Goods-producing industries more often provided training than service industries: 55 percent of workers in training were employed in goods-producing industries (mostly in manufacturing) and 45 percent were in service industries.[12]

Informal Training

Although the number of formal, structured industry training programs appears to be small and of limited significance in the total training system, employers remain the principal source of skills development. For the majority of workers, as has been noted, learning job skills appears to be an informal process which takes place largely within the work environment.

Most adult workers surveyed in the 1963 study reported that they had developed the skills for their current jobs through informal on-the-job training and experience or had "just picked up" the necessary skills. Some workers reported a combination of one or the other of these methods with formal job training as the means by which they had learned their jobs. Thus, the survey data on ways of learning overlap:

—8 percent of the workers surveyed indicated that no training was needed for their current jobs.

[12] Agriculture, railroads, public schools, and other Government establishments were excluded from the survey.

- 56 percent reported they had learned their jobs through on-the-job training. This training included instruction from supervisors or fellow workers, "working their way up," and company training courses (part-time or full-time for less than 6 weeks).

- 45 percent reported "casual" learning. In this category were learning from a friend or relative, "just picked it up," and other such answers.

- Approximately 30 percent of the respondents said they had learned their current job in apprenticeship and other formal training programs.

The relative significance of informal and formal training methods varies considerably by occupation; formal training programs are more frequent in higher-level occupations involving more complex skills.

Little is known about the important area of informal occupational training. Beyond the 1963 Labor Department survey discussed above, there appear to have been few other attempts to quantify these significant but elusive training processes. Some insight into the nature of these processes was provided, however, in a recent study of the mechanisms by which 20 manufacturing plants adjust the available labor supply to the requirements of blue-collar manufacturing jobs.[13] The study concluded that "the variable which appears to carry the major burden of adjustment is in-plant training, although recruitment, screening and hiring procedures are also relevant." It was also concluded that this in-plant training—at least for the blue-collar production and maintenance jobs covered by the study—was predominantly "a process of informal training on the job in the process of production." The authors' description stresses the completely unstructured nature of this process:

> In-plant training in these plants took a variety of forms, and any single job was taught differently at different times in the same plant. But the predominant pattern—and the one which appears to be most critical in adjustment to changing technology—was a process of informal training on the job in the process of production. The typical worker in the manufacturing sector just "picks up" his skills by what one observer has termed a process of "osmosis."
>
> For relatively simple operating jobs, new workers receive a brief job demonstration and

[13] Internal Labor Markets, Technological Change, and Labor Force Adjustment. Peter B. Doeringer and Michael J. Piore (Cambridge, Mass., October 1966, mimeo.).

are then placed directly on the machine. As they begin to produce on their own they are corrected by the foreman or by neighboring operators, and, in this way, acquire speed and accuracy. On complex jobs, particularly in maintenance and repair, the novice may serve as an assistant to an experienced employee whom he eventually replaces. Sometimes the position of assistant is a regular job, part of the normal staffing pattern. In other cases, it is a trainee position, not otherwise filled. In still other cases, training takes place along a promotion ladder: work on lower level jobs on this ladder develops skills which are a prerequisite for learning the more complex skills required on the jobs higher up the ladder. Alternatively, workers in a department frequently learn other jobs by observing their neighbors and by practicing on, or "playing around with" the equipment during their lunch hour so that, although the jobs within the department are not skill related, the ability to perform a given job is related to the length of time the worker remains in the department. Job skills are also acquired during temporary work assignments: an inexperienced man may, for example, stand in for the regular incumbent when the latter is temporarily forced to leave his station and for more extended periods when the incumbent is late, sick, or on vacation.

Despite such diversity, all of these training patterns have three common features which make it useful to analyze them as a group: 1. the training takes place on the job; 2. it occurs in the process of production; and 3. it is highly informal. The informality of the training procedures in the plants visited was particularly striking. Job skills were communicated orally and through demonstration and were learned by practice and repetition. The larger plants in the sample had written job descriptions, but these were designed for use in wage administration and in recruitment and screening. They were seldom, if ever, referred to in the actual training. And even in wage administration and hiring, they appeared to serve only as guideposts. During the interviews, managers continually paused to reinterpret them, adding phrases, interpolating words, and so on. An uninitiated worker, reading the description without ever having seen the job performed, would find little to help him actually do the job.

Instruction manuals were also conspicuously absent. In those plants where they existed, they were used as maintenance guides, apparently designed for those already familiar with similar pieces of equipment and the specialized vocabulary associated with them.

In short, the jobs exist only as work performed on the plant floor; continuity of job activity, from one generation of employees to another, is achieved through a process of direct transmission, orally and by example, from the incumbent to his successor. Thus the incumbent serves as teacher and his eventual replacement as student.

Training in Specific Industries

Industries employing high proportions of blue-collar workers were found to account for most of the formal occupational training in the private sector, according to the 1962 survey. Workers in manufacturing—largely in durable goods—represented 46 percent of all employees receiving formal training; firms in transportation, communication, and public utilities employed the second largest proportion—16 percent—of trainees.

Even though the manufacturing and transportation, communications, and utilities industry groups apparently have the largest number of workers in formal training in the Nation, some other smaller industries actually report training in a higher proportion of their establishments.

Two industries employing largely white-collar workers had the highest proportions--financial, insurance, and real estate services (34 percent) and retail trade (27 percent). Almost 25 percent of the establishments in contract construction and an almost equal proportion of establishments in miscellaneous services indicated that they conducted training for employees.

The current sense of urgency about the necessity of training to meet our growth needs is reflected in the fact that industries with a heavy involvement in training are among the most rapidly growing industries in the economy as the following tabulation indicates:

Industry Division	Percent of establishments with training programs	Percent of employment growth projected, 1965-75
All industries	20	25.0
Mining	17	-1.9
Contract construction	24	31.5
Manufacturing.	17	9.2
Transportation, communication, and public utilities	18	13.5
Finance, insurance, and real estate . . .	34	23.2
Retail trade	27	27.4
Wholesale trade	14	24.8
Services (other).	23	42.5

In reviewing business and industry training programs, the Task Force was interested in the prevalence of job ladder arrangements and the extent to which such systems of occupational progression can be introduced within firms in conjunction with skills training programs.

Job ladder policies are well developed in certain industries. In the steel and petroleum production and refining industries, firms develop most of their blue-collar skills, including maintenance and repair skills, internally through upgrading. Also, in the public utilities--electric, gas, and telephone industries, for example, inexperienced workers are hired and trained to move up the industry's job ladder.

In other industries, the ladder policy is not so clearly articulated, but movement up the occupational scale is both possible and customary; in many factories, workers may move from the operation of a simple machine to increasingly complex ones, or they may complete apprenticeships to qualify for skilled jobs.

The Task Force concluded, however, that there are significant opportunities for further extension of the job ladder concept and that Government should promote actively the installation of these arrangements in industry. Health services, an industry that suffers from severe occupational shortages, offers particularly great potential for the effective installation of job ladders. Installation of occupational progression arrangements may be feasible in other industries which currently lack such arrangements. Job ladder policies would be adaptable primarily to those industries which encompass a broad number of occupations of different skill levels and in which large establishments predominate.

Training in Specific Occupations

As one would expect, formal training is reported most frequently by workers at the top of the job ladder. For example, the 1963 survey indicated that nearly two-thirds of professional and technical workers had learned their jobs through formal training--and, it will be remembered, none of these workers was a college graduate. Especially high proportions of draftsmen and professional nurses reported learning through formal training.

Clerical workers were the only other occupational group in which a majority of the workers reported they had learned their jobs through formal instruction. This also was to be expected, since the group includes such occupations as secretary and stenographer, in which formal training is usually necessary for entry. Most workers in the two remaining white-collar groups—sales and managerial—reported learning their work without formal training.

On the other hand, only about 40 percent of the craftsmen and kindred workers said they had learned their current jobs through formal training, including apprenticeship. Electricians, sheet-metal workers, plumbers and pipefitters, compositors and typesetters, tool and die makers, machinists, airplane mechanics, radio and television mechanics, and utility linemen and servicemen most frequently reported learning their present job through formal

training. Carpenters and painters reported formal training fairly infrequently, as did foremen and heavy construction workers and bakers.

Among factory operatives (semiskilled workers), only 1 in 8 said he relied on formal training. Among the service workers, about one-fourth had used formal training to learn their jobs. Especially high proportions of barbers and hairdressers, health personnel, and policemen and firemen had been formally trained.

It is thus clear that formal occupational training programs assume greater importance as one proceeds up the occupational ladder to the more complex occupations. Even within occupational categories, higher level specialties require more formalized instructional programs than less skilled trades. Frequently, because the highest level skills are also those in short supply, industry is obliged to train its own workers in these occupations.

A recent study of training in the metalworking industry, for example, pointed up the relative importance of formal, in-plant training in rapidly growing, high-level skills;[14] a far higher percentage of persons were enrolled in apprenticeship and other company-sponsored training programs in such high demand, technologically complex occupations as tool and die maker, electronic technician, and maintenance electrician than in lower demand occupations such as millwright and welder.

Engineering and science technicians are among the highest skilled nonprofessionals in the work force and are also among those in most limited supply. A study by the Department of Labor estimated that three-fourths of the new technicians in 1963 acquired their skills in industry technician training programs--mostly through upgrade training that integrated academic training with extensive training on the job.[15]

Training Costs

The lack of comprehensive data on employer expenditures for training is one of the most significant gaps in information on training in industry. Few employers apparently maintain comprehensive records on the various expenses incurred by their firms in providing occupa-

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[14] The Scope of Industrial Training in Selected Skill and Technical Occupations. Stanford Research Institute, October 1966.

[15] Technician Manpower: Requirements, Resources, and Training Needs, Bureau of Labor Statistics, U.S. Department of Labor, June 1966, pp. 37-39.

tional training. In 1966, the Department of Labor conducted a pretest of a proposed survey of manufacturing industry expenditures for formal training and concluded that incomplete employer records on this activity made a full-scale survey infeasible.

In the absence of other data, the Task Force reviewed the rough estimates of training costs which have been developed in recent small-scale surveys. These data should be used with caution, however, and suggest only rough orders of magnitude.

In a survey of 210 New England manufacturing firms[16] conducted in 1963 by the Federal Reserve Bank of Boston, employers were asked to estimate costs for four types of training: on-the-job training, on-the-job training, apprenticeship programs, and out-of-company training. The training cost estimates covered salaries of instructors, costs of materials, costs of maintenance of equipment, and wages of trainees not offset by value of production. Costs of upgrading employees already on the payroll as well as training new hires were included.

The survey revealed considerable variation in training costs among industries. For example, firms in the fabricated metals industry indicated that they spent, on the average, over $1,000 per worker trained, while firms in the electrical machinery industry said they spent less than $270 per worker. The study concluded that these cost differentials reflected to a great extent the complexity of the skills involved: the more complex the skill, the greater the value of equipment and supplies, the cost of maintenance and repair of equipment, the salaries of instructors, and the length of required training. An added cost factor is that at the higher skill levels, trainees spend more of their time in training and less in the production process where the value of their production would offset their wages, as well as the other costs of training.

That costs rise with the skill level was borne out by the survey's finding that training costs are highest among industries that have a high proportion of their work force in professional and craft occupations. The printing industry, for example, with the second highest share of these high level occupations, had the highest average cost per worker trained among the New England region's major industries. This relationship existed in part because in-

16. "Industrial Investment in Manpower." New England Business Review. February 1964.

dustries with high skill levels also had relatively high wage and salary levels. Since the salaries of instructors are a significant part of total training costs, these costs are higher in industries with high skill concentrations. This relationship also held at the lower end of the scale. For example, New England's apparel industry, a relatively low wage industry with a small proportion of professional and craft workers, had a low average cost per worker trained.

In 1965 and 1966, the National Industrial Conference Board (NICB) conducted an experimental survey[17] of the costs of hiring new workers which reported that for all industries and occupational categories, wage or salary payments to trainees not offset by value of production was by far the most significant training expense.

Recent Trends

The level of occupational training in industry is responsive to a variety of economic and job market factors. It appears that the increasing importance of several of these factors in recent years has resulted in an expansion of industry training programs.

Shortages of trained personnel in specific occupations are prime motivators for the initiation of company training courses. In 1965-66, for example, shortages appeared in a variety of skilled craft occupations. A marked rise in the number of apprentices registered with the Department of Labor or cooperating State apprenticeship agencies during 1965 and 1966 signified that employers were responding to these manpower stringencies, in part, by establishing in-plant training programs. Apprenticeship registrations increased greatly in such demand occupations as machinist and tool and die maker.

In surveys of New England manufacturers conducted by the Federal Reserve Bank of Boston,[18] it was determined that these employers were training 18 percent more of their work force in 1965 than in 1962, yet total manufacturing employment in New England increased only 1 percent during this period. A sharp upturn in labor turnover associated with a tightening job market was reported to be an important factor in this significant expan-

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17.--Hiring Costs: Some Survey Findings," The Conference Board Record, January 1967.

18.--Industrial Training and the Business Cycle," New England Business Review, September 1966.

sion of training activity. Other factors, such as the introduction of new technology, may also be involved in the expansion of industry training. The survey also concluded that the need to train workers in the use of new equipment and machinery was a major factor in the recent expansion of in-plant training programs in the New England area.

While there has been no systematic tabulation of the kind of workers industry is training today, it is generally agreed that business and industry have significantly enlarged their training of disadvantaged and hard-core unemployed persons in the population during the past few years.[19] Members of the Task Force visited several of these training programs established in recent years by such major corporations as the Ford Motor Co., Michigan Bell Telephone, Eastman Kodak, Xerox, John Hancock Life Insurance Co., and the KLH Research and Development Corp.

The establishment of these programs for workers who normally would not meet industry's hiring requirements has been, in part, a function of the labor shortage situations which have emerged during the past 3 years. Employers also increasingly are aware of the urgent social problems posed by the concentration of hard-core unemployment and under-employment in the urban ghettos and in many of the rural areas of the United States. With the added impetus of the current Federal programs to promote industry training of the hard-core unemployed, it is likely that employer involvement in the training of the disadvantaged will continue, at least in the immediate future.

A Look at the Future

The role to be played by industry's occupational training programs in meeting future manpower requirements is still evolving. The factors which led to heavier industry involvement in training in recent years--accelerated demand for highly skilled workers, changing technology, the special training needs of disadvantaged groups in the population--will undoubtedly influence the shape of industry training programs in the coming years. Present informal and casual training arrangements in industry are likely to become increasingly inadequate as a source of work skills. Employment

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[19] See, for example, "Business Can Live with the Labor Shortage," Fortune, May 1966; "How Business Employs the Unemployable," Nation's Business, January 1967; "Business and the Urban Crisis: A McGraw-Hill Special Report," Business Week, February 3, 1968.

growth, as has been noted, will be concentrated at the upper end of the skill ladder. It is in these higher-level occupations--technician, clerical, and skilled craft positions--that formal industry training programs have been most significant in the past; as these occupations become increasingly complex, formal training is likely to become more essential. It is in these same occupational categories, as this discussion has indicated, that the costs of training to the employer are likely to be the highest. These costs will be still higher where employers, because of manpower shortages or social imperatives, upgrade present employees to these higher level occupations to make room for less qualified new hires and are obliged to provide training and supportive services to prepare disadvantaged persons with limited educational backgrounds for entry jobs.

The Task Force recognizes that training programs in the public sector will continue to play a significant role in providing the skills of the work force.[20] It seems clear that industry's role as the major supplier of work skills will not be diminished in the years ahead.

This view was expressed in an analysis by a distinguished observer of the manpower scene on the major new influences that will shape our economy in the years ahead:

> ... The experience of 1966 and 1967 and the new relationship between economics and policymaking tempt us to assert that the economy has now achieved a stable new plateau of growth with an unemployment rate of 4 percent, heading toward 3.5 percent or below ...
>
> A high unemployment economy requires a very much larger attention to training of manpower primarily by management but also by organized labor and by government. It is not adequately recognized that business enterprises are in the educational business, training and developing the general and specific skills of a work force. These activities apply to production and maintenance workers, clerical employees, as well as professional and managerial groups. The reference here is not to financial support of education or payment for courses in educational institutions. Rather, the point is that a business enterprise is not merely producing goods and services; it is also in the business of developing and training the skills and capacities of its work force. This education is a joint output with production.
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> ... A continuing high-employment economy is one in which enterprises spend significantly more on training and manpower planning and development and is also one in which these activities are more highly related to the success of the enterprise ...[21]

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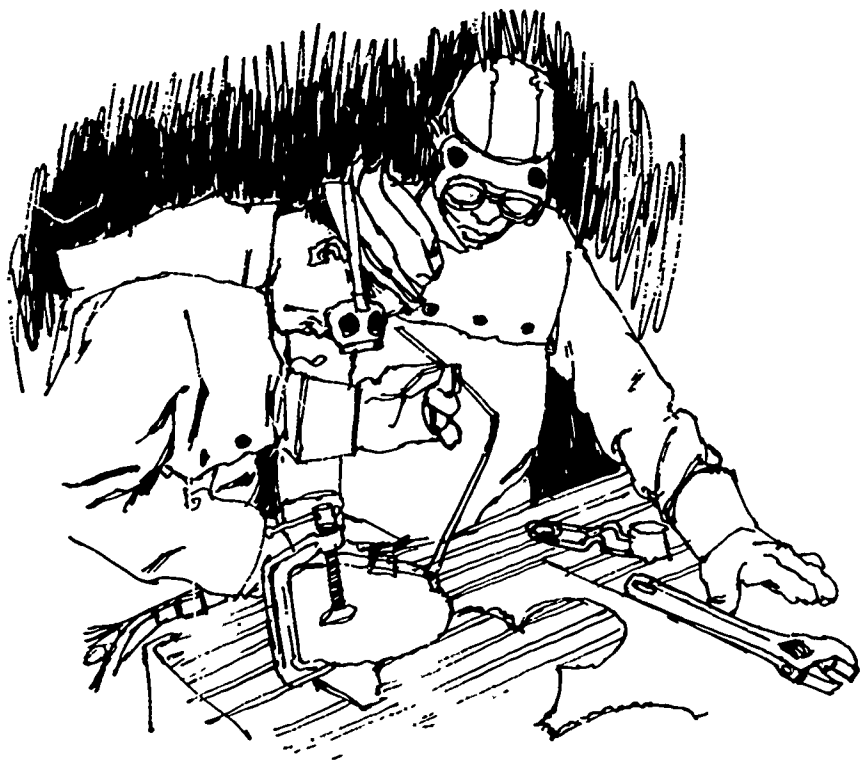
[20] For a discussion of the school versus the workplace as training institutions, see Dr. Garth Mangum's paper "The Rationale for a Public Policy Toward Training in Industry," Volume II, Appendix A.

[21] John T. Dunlop, "New Forces in the Economy," Harvard Business Review, March-April 1968, pp. 123-124.



c. federal programs to support training in industry

C. Federal Programs to Support Training in Industry

The Federal Government's longstanding participation in the occupational training of the American work force has evolved steadily over the years. The passage of landmark legislation, usually during critical periods in our history, has shaped an expanding Federal role in this area. This development was marked by the establishment of the system of land-grant colleges during the Civil War, by Federal aid to vocational schools begun in 1917, and the massive program of educational assistance provided to veterans by the GI Bill of Rights at the end of World War II.

Following World War II, national concern with the overriding importance of balancing people and jobs led Congress to adopt the Employment Act of 1946, which called upon the Government "to promote maximum employment, production and purchasing power." This Federal commitment to full employment laid the basis for the major expansion of the Federal Government's role in occupational training which took place during the 1960's. During the early part of this decade, concern over high levels of unemployment in certain geographic areas and the threat that changes in technology and job requirements would result in loss of employment among experienced workers led to the passage of the Area Redevelopment Act in 1961 and the Manpower Development and Training Act (MDTA) in 1962. Later in the decade, as the Nation approached the goal of full employment, attention turned to the persistence of hard-core unemployment among the impoverished and disadvantaged groups in the population. This concern led to the establishment of the antipoverty program under the Economic Opportunity Act and to a major reorientation of the MDTA toward the training needs of the disadvantaged.

More recently, a trend has developed toward greater involvement of private industry in Federal training programs. The success of these joint Government-industry efforts was an important factor in the formation of this Task Force to consider the future direction of Federal policy with regard to training in industry.

Thus, while the Task Force reviewed federally supported training programs in general, it concentrated on those programs specifically designed to assist and stimulate training by private employers. This section of the report will describe briefly the programs involving industry training that were reviewed by the Task Force.

Federal Apprenticeship Program

One of the earliest links between the Federal Government and private industry training programs was the Federal apprenticeship program established by the National Apprenticeship Act of 1937. Under this program, the U.S. Department of Labor has been engaged in stimulating and assisting employers in the development, expansion, and improvement of apprenticeship training--a system of training which combines theoretical and on-the-job instruction to prepare well-rounded journeymen in the skilled crafts.

The Federal Government's role is exclusively promotional and advisory; it does not have the authority to finance or regulate apprenticeship training. The Department of Labor, through its national and local offices, and with the cooperation of State apprenticeship agencies, encourages high standards in apprenticeship by registering acceptable programs, promotes the establishment of these programs in additional firms and industries, and provides technical assistance to employers and unions in setting up such programs.

At the beginning of last year, approximately 207,000 persons were enrolled in federally registered apprenticeship programs, about two-thirds of all apprentices in training. This form of training is concentrated in only a few industries and in a small number of occupations. During the period from 1961 to 1967, more than half of the registered apprentices in industry were in the construction trades; other large groups were in metalworking occupations and in the printing trades.

Occupational Group	Number of Registered Apprentices in Training, January 1967
Total	207,511
Construction	122,193
Metalworking	44,757
Printing	12,363
All other	28,198

The Task Force considered that this limited Federal investment in promotional and technical assistance activities has repaid significant dividends in the development of a cadre of high-caliber craftsmen and firstline supervisors by

American industry. It was also concluded that there is an appropriate Government role in providing such promotional and advisory services for training beyond the limited area of apprenticeship, although major expansion of Federal effort in this field would require the utilization, on a contract basis, of specialists in private firms and training organizations. The Task Force concluded that apprenticeship is a highly desirable form of training that should be reviewed carefully and where appropriate, strengthened and extended to additional occupations, localities, and larger numbers of workers. Specific proposals for the expansion and strengthening of apprenticeship are discussed in chapter V.

Manpower Development and Training Act: On-the-Job Training

The Manpower Development and Training Act of 1962 (MDTA) represented a major forward thrust in the Government's participation in the skills training of the work force. The Act was conceived in an environment of high unemployment and concern that many well-qualified workers would be displaced by economic and technological change. Thus, the initial focus of the program was on the retraining of adults with obsolete skills. The MDTA was designed as a flexible instrument, however, to be used as part of an active manpower policy. As the tempo of economic activity increased, experienced workers were rehired and the focus of social concern became the employment problems of the poor and disadvantaged and the problems of youthful entrants to the job market. Thus, the portion of the program devoted to youth was expanded, authorization for basic education and other supportive services was added, and, in fiscal year 1967, the major emphasis in the program was placed on training the disadvantaged. Also in fiscal year 1967, the limited proportion of the program devoted to on-the-job training was substantially enlarged.

Two basic types of training are authorized under the MDTA: regular institutional or classroom instruction and on-the-job training (OJT). A combination of OJT and classroom instruction, sometimes provided, is referred to as "coupled" on-the-job training. All training may include basic education and prevocational training, as well as vocational training.

Most MDTA training has been institutional training conducted principally in public vocational schools. The program

is administered jointly by the Department of Health, Education, and Welfare and the Department of Labor through State and local vocational education and State employment security agencies.

The on-the-job training (OJT) program of the MDTA, although modest in size--enrolling only 191,000 trainees through fiscal year 1967 compared with 600,000 trainees in MDTA institutional programs--has been the largest program of direct Federal financial assistance to training in private industry. Under MDTA-OJT, training is provided at a jobsite by an employer under contract with the Department of Labor. Private businesses, trade associations, labor unions, and public agencies participate as sponsors of training programs. OJT contracts provide for payments to project sponsors which cover certain training costs: job instructor fees, materials used in the course of training, and instructional supplies. Trainees are paid wages by employers when producing goods or services for commerce and receive Federal training allowances for training time not spent in production.

The OJT programs are designed for several purposes: to equip workers with entrance-level skills for immediate and continuing employability; to provide remedial training for underemployed workers and those subject to job displacement; to provide special training opportunities for workers from minority groups, disadvantaged youth and other hard-to-train persons; and to relieve shortages in occupations particularly critical to defense and the economy.

OJT may be coupled with supplemental training provided in a classroom facility located either in a school or on the premises of the employer. While such instruction usually covers technical subjects directly related to the training occupation, it may also include academic education essential to effective job performance.

OJT training is provided in a wide variety of occupations. The 2-year statutory limit on the payment of allowances to trainees, however, tends to restrict both the length of training programs and the skill level of the occupations being taught. While a small number of persons has been trained in relatively high-level occupations such as draftsman and licensed practical nurse, enrollees are more typically prepared for occupations such as aircraft subassembler, nurse's aid/orderly, welder, clerical occupations, and general machine operator.

Some OJT projects achieve a dual purpose of helping to meet the demand in skill shortage occupations and, at the

same time providing employment opportunities for disadvantaged persons. For example, preapprenticeship programs under MDTA-OJT provide young men from disadvantaged backgrounds with the education and training needed to qualify for entry into apprenticeship programs in highly skilled craft occupations. In one such program, sponsored by the National Tool, Die and Precision Machining Association, preapprenticeship is provided as a "gateway" into an industry confronted by serious manpower shortages.

Another innovational OJT approach coupled upgrading with job entry training. Under a national agreement with the United Brotherhood of Carpenters and Joiners of America, journeymen carpenters are given training to advance their skills and, at the same time, trainees are admitted for training in preapprenticeship and apprenticeship programs in the trade.

Although the MDTA-OJT program has not been subjected to rigorous evaluation--a deficiency which will be discussed in chapter VI--the Task Force was impressed by the program's high placement rate—9 out of every 10 graduates were placed in jobs in fiscal 1967—as well as by the low average per-trainee cost to the Government—approximately $500 per person completing the program through December 1966.

The Task Force also reviewed the findings of a brief survey of employers' and unions' reactions to MDTA-OJT, conducted for the group by a Task Force member, Karl Kunze, of the Lockheed-California Company. Mr. Kunze canvassed 47 companies, ranging in size from a few hundred to over 30,000 employees and representing a wide variety of industries. A trade union was also included in the survey. (See Vol. II. Appendix E for the full report.) On the basis of his survey, Mr. Knuze concluded:

> ... The employers and unions canvassed evidenced generally favorable attitudes toward MDTA-OJT programs and voiced their intention to continue using them. Some said MDTA-OJT made it possible for them to train the "disadvantaged, hard-core, and underprivileged," and provided a motivation to train those whose qualifications were substantially less than prevailing job requirements. Respondents judged MDTA-OJT to be a better training instrument for entry than for higher level occupations. The need for counseling and remedial education was expressed by some.

The Task Force considers MDTA-OJT to be an appropriate basic model for programs of Federal financial assistance to training in industry. Modifications will be needed, however, to meet the specific training objectives for which this manpower policy tool is to be used. For example, if the

Federal Government wishes to help finance training for skill shortages, the present 2-year limit on the length of training programs would have to be extended.

The JOBS Program

During the past year, the Federal Government, recognizing the potential of the basic MDTA-OJT mechanism as a means of addressing the urgent and difficult training and employment problems of the hard-core unemployed, launched a series of major demonstration programs to test the effectiveness of a greatly expanded array of OJT and supportive services to meet these problems. These demonstration programs culminated in the announcement by the President in January 1968 of the JOBS program—a large-scale effort to engage private industry in the training and employment of the most severely disadvantaged citizens in our society.

The first major demonstration program in this process was the "Ten Cities" or MA-1 program. In July 1967, the Department of Labor contracted with six private firms and a public school system to provide a wide range of training and supportive services to seriously disadvantaged workers in 10 major cities. While each of the 10 programs is different in approach, they all provide enrollees with counseling, testing, training, and followup services. The contractors are responsible for prevocational training, as well as on-the-job training in their own or other establishments where meaningful OJT can be performed. The contractor provides placement services but is not required to hire the trainees who complete the program.

The MA-1 program is being closely monitored to provide the Department of Labor with current information on the program's operations, as well as insights into its accomplishments and problems. The training projects have already demonstrated that the successful preparation and on-the-job training of the hard-core unemployed are far more expensive than was indicated by past projects under MDTA-OJT. Because the task of helping the seriously disadvantaged achieve employability is so difficult and complex, the average cost per trainee under the MA-1 program will be about $2,300.

In October 1967, the next phase of the demonstration effort—the industry-Government pilot program on hard-core unemployment—was initiated. In this experiment, employers were offered extensive financial assistance as well as coordinated Government services as inducements to create new

employment opportunities, principally in urban slum areas, for severely disadvantaged residents of those areas.

Employers in five cities were invited to submit proposals for on-the-job training for hard-core jobless slum dwellers. To induce employers to locate their plants and businesses in or near ghetto areas, a wide range of Federal services was offered through a single office of the Department of Commerce. The services offered included lease or sale of surplus Federal property, aid in the lease or construction of job-producing industrial facilities in poverty areas, and small business loans.

The on-the-job training component of the pilot program, or MA-2, building on the experience of MA-1, placed greater emphasis on the hiring of trainees. Under MA-2, employers participating in the pilot program hire the trainees at the outset of the program and are reimbursed for all the added costs of services needed to make the trainee productive. As in the case of MA-1, the costs of a variety of supportive services, in addition to the on-the-job training itself, were reimbursable.

Contracts under the program are 21 months in duration. To keep the administrative burden on contractors as well as the Government to a minimum, fixed unit cost contracts were awarded to cover the first 15 months of the contract period. The contracts also provided for a schedule of incentive awards to be paid for the 16th to the 21st month of the contracts to those employers whose employee-trainees are in a continuous employment status for 12 months under the contract.

The JOBS program, initiated in January 1968, represented a large-scale application of the experience gained in MA-1 and MA-2 as well as in the regular MDTA on-the-job training program. Under the JOBS plan, participating employers hire and train hard-core unemployed workers identified and referred to them by the Government. The persons hired under this program are exclusively from disadvantaged backgrounds and are usually less qualified than persons hired by these firms. In addition to requiring longer training periods, these trainees will need services not normally provided by employers. Thus, the Government will reimburse the costs incurred by an employer in hiring and training these individuals which are over and above those customarily incurred in hiring and training a new employee. Among the reimbursable cost items are on-the-job training (including differentials for lower employee productivity) and such added services as basic and remedial education, counseling and

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