Training and Employment Report Of the Secretary of Labor

Covering the Period July 1988–September 1990

Transmitted to the Congress, 1992

U.S. Department of Labor
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U.S. DEPARTMENT OF LABOR

SECRETARY OF LABOR
WASHINGTON, D.C.

To the Congress of the United States:

Enclosed is the annual Training and Employment Report of the Secretary of Labor, required by Section 169(d) of the Job Training Partnership Act (JTPA), Title 29 U.S.C. Section 1579(d).

In a message at the beginning of the Report, we have outlined the Department of Labor's current job training agenda, designed to help all American workers achieve long-term employment security. The plan is organized under four major headings: the school-to-work connection, programs offering a second chance, worker adjustment activities, and steps toward lifelong learning.

Chapter 1 of the Report covers developments in employment and training programs during Program Years 1988 and 1989 and Fiscal Years 1989 and 1990. Major activities discussed concern JTPA, the Job Training for the Homeless Demonstration Program, Apprenticeship, the Senior Community Service Employment Program, the Employment Service, Unemployment Insurance, and Trade Adjustment Assistance.

Chapter 2 summarizes the results of research and evaluation projects funded by the Department's Employment and Training Administration (ETA) and completed during Program Years 1988 and 1989.

This edition of the Report includes an annotated bibliography of 112 ETA research and evaluation reports completed from Program Year 1985 through Program Year 1989. It also contains a statistical appendix.

Lynn Martin

LYNN MARTIN

December 1992

A Message from the Secretary

In my previous message, I termed what we have been trying to accomplish on the employment and training front as "a battle plan for the new workplace revolution"—a revolution leading to long-term employment security for all American workers that is dependent upon their skills, and their willingness and ability to learn, change, and grow. Since that time, this battle plan continues to be refined and expanded.

We have learned that we must continue to attack across a wide front, one that encompasses groups as different as noncollege-bound youth, adult workers with low skills and low incomes, and those workers in need of retraining or placement.

Further, we have sharpened our focus on the need to develop a world-class quality education and training *system* in order to build a quality workforce. We cannot achieve this goal unless we make systemic changes, whether these changes involve setting up a youth apprenticeship network, streamlining the Federal vocational training system, or improving the work readiness of workers of all ages.

Refining our employment and training battle plan has been an eventful endeavor. The hallmarks of this process are—and will continue to be—quality, accessibility, and accountability.

Improving the quality of services provided through our education and training system will result in workforce entrants who are prepared to meet the demands of a high-skill, high-income economy. Since the quality of the workforce affects critical bottom-line economic indicators, wage levels, the rate of productivity, and profit margins will largely be determined by our future workforce.

Wider access to jobs and training programs and career information broadens choices, and makes those choices better informed.

And a well-managed, accountable education and training system responds more effectively to local labor market needs. It also raises school and workplace standards and student and worker expectations—and thus motivation and achievement.

Increased quality, accessibility, and accountability are three primary objectives underlying President Bush's education and training proposals. These include the President's education initiative, AMERICA 2000; the President's initiative to streamline the Federal employment and training system, Job Training 2000; and the New Century Workforce, a new strategy to help ensure that American working men and women have the skills and abilities they need to secure long-term employment in high-skill, high-wage jobs.

Among other goals, AMERICA 2000 calls for "every adult American to be literate and to possess the knowledge and skills necessary to compete in a global economy." We are working in close partnership with the Department of Education toward this major objective.

Job Training 2000, which President Bush announced in January of this year and sent to Congress as legislation in April, envisions a comprehensive Federal job training system designed to meet the Nation's workforce needs now and into the 21st century.

Announced by the President in August, the New Century Workforce is a new $3 billion-a-year skills training and vocational education plan. It features a wide array of proposed programs ranging from learning alternatives for noncollege-bound high school students, to a program offering poor, out-of-school youth the chance to sharpen their academic skills while they perform needed conservation work, to new opportunities for dislocated workers.

Following are highlights of our refined employment and training battle plan in four major areas—the school-to-work connection, programs offering a second chance, worker adjustment activities, and steps toward lifelong learning.

The School-to-Work Connection

Youth Apprenticeship. The New Century Workforce plan includes the National Youth Apprenticeship Program. This proposed initiative expands on a proposal to Congress to broaden youth access to quality training programs through the establishment of a Federal-State-local framework for implementing apprenticeship programs for high school juniors and seniors nationwide. The framework would ensure that such programs maintain high academic standards and promote the systematic transition from school to work.

A national youth apprenticeship system will be an enormously positive step for America's future. Central to the concept is a formal agreement among student, school, employer, and parents that provides the student with a structured combination of academic instruction, work-based learning, and paid experience on the job, all leading to a high school diploma, a skills certificate, and employment. The Targeted Jobs Tax Credit would be available to employers who hire apprenticeship students meeting the economically disadvantaged criterion.

The Department continues to work with States and local communities to encourage their adoption of youth apprenticeship programs. For example, the Department is providing funds to six States to implement statewide youth apprenticeship programs, and is launching 10 new Youth Apprenticeship Research and Demonstration Projects that will test ways in which the apprenticeship concept can more effectively help youth make the transition from school to the workforce.

Secretary's Commission on Achieving Necessary Skills (SCANS). Issued last April, SCANS's final report entitled *Learning a Living: A Blueprint for High Performance* marked the beginning of a new phase of improving work readiness. The Commission's goal was to foster awareness of the importance of ensuring that everyone has the opportunity to master the skills, or workplace know-how, associated with quality jobs in the modern world. Earlier, the Commission had researched the issue of work readiness and defined the know-how that high-performance schools must produce and that high-performance workplaces demand.

The new SCANS phase reinforces our efforts to strengthen the link between school and work. The Department is playing a leading role in encouraging the establishment of active partnerships among educators, employers, and other concerned citizens to incorporate teaching the SCANS principles into the classroom and workplace. To support this effort, we commissioned a comprehensive research effort to develop measurements to assess student and worker proficiency levels for the SCANS-defined skills.

Programs Offering A Second Chance

Job Training Partnership Act (JTPA). JTPA is about to enter its second decade as the largest second-chance and most successful system of Federal job training and retraining programs in the United States. For 8 million people, many of whom have been at high risk of failure in the job market, this legislation has offered a second chance at workplace success. With the implementation of the recently passed JTPA amendments, this focus is sharpened.

These amendments will provide enhanced quality and better targeted services to economically disadvantaged adults and youth facing serious barriers to employment. A service strategy is now required for each participant, based on individual need. The amendments also provide for additional linkages between JTPA and other human resource programs, and incorporate important changes related to procurement, fiscal management, and on-the-job training standards that will strengthen program accountability.

The amendments establish a new Youth Fair Chance (YFC) program, which is based on the pilot Youth Opportunities Unlimited program and designed to provide

comprehensive, easily accessible human services to youth in high-poverty areas. The purpose of YFC is to bring about community-wide change and to increase fundamentally opportunities available to youth growing up in poor inner-city neighborhoods and rural areas.

The Department is in the final stages of implementing a complete overhaul and refinement of the vocational and education components of the Job Corps, another youth program authorized by JTPA. This program has long been recognized as an effective program for helping severely disadvantaged out-of-school youth who can benefit from services provided in a residential setting. The final overhaul phase consists of installing at all Job Corps centers a computer-managed basic education instructional system. The new computerized approach allows students to progress more rapidly through the program on their own. This enables teachers to work with other students who need one-on-one attention.

Job Training for the Homeless. Another illustration of how the employment and training system functions as provider of second chance opportunities is the Job Training for the Homeless Demonstration Program. Established by the McKinney Homeless Assistance Act, this Department-administered demonstration is the first major Federal effort designated to gain information on effective employment and training services for homeless individuals. A special feature was added last year when the Department launched a new initiative among grantees, one that emphasizes the attainment of permanent housing for participants, as well as increased employment and improved job retention.

To date, the program has operated in 24 States and the District of Columbia. Its evaluation component has allowed us to learn, and then put into practice, effective service strategies for the target population.

Youth Training Corps. Second-chance programs would be significantly strengthened by establishment of the proposed Youth Training Corps (YTC), which is included in the New Century Workforce initiative. The YTC will provide economically and socially disadvantaged youth with intense vocational training and work skills. The training will be combined with community service and conservation work in rural areas and on public lands.

Patterned after the Job Corps Civilian Conservation Centers, the program will utilize and build upon resources available as a result of military downsizing. The YTC will provide a highly structured, disciplined, applied learning environment to help participating youth acquire the knowledge and skills to become more responsible citizens, enroll in more advanced training, and hold productive jobs.

Worker Adjustment Activities

Advancing Skills through Education and Training Services. Called ASETS, this New Century Workforce program was proposed to help workers keep pace with the demand for high skills and high productivity. The program consolidates elements of the Trade Adjustment Assistance (TAA) and Economic Dislocation and Worker Adjustment Assistance (EDWAA) programs into a single, comprehensive program of assistance that can be more easily accessed by individual workers.

TAA has provided individualized training and income support to a narrow group of targeted workers; EDWAA has provided a broader range of adjustment and transition services, including training, to a larger number of workers through flexible, locally-based delivery systems. ASETS extends these services to the full range of dislocated workers.

An ongoing three-year evaluation of EDWAA will help ensure that the program's State and local administrative network can successfully take on the new responsibilities created by increased environmental awareness, defense cutbacks that are the inevitable result of the end of the Cold War, and other actions of the Federal

Government. It also allows the Department to ensure that EDWAA continues to meet the objectives of the legislation and to refine its ASETS proposal and ASETS' eventual implementation.

Among the major features of the ASETS proposal are: (1) the assurance that all dislocated workers, including those who may change jobs or careers as a result of the North American Free Trade Agreement (NAFTA), have access to basic transition assistance and training support, and (2) skill grants to workers of up to $3,000 annually which are redeemable by training institutions and would help meet the costs of quality training programs. In addition to knowledge gained from the experience of EDWAA and TAA, ASETS' design reflects the results of consultations with members of Congress and with agriculture, labor, and business groups, and the concerns of the public at large.

Public Employment Service. Our hallmarks of quality, accessibility, and accountability also govern changes being made to strengthen the Federal-State employment service (ES) network. For example, the Department is in the process of providing technical assistance to raise the quality of ES services, examining new approaches to current occupational analysis and testing practices, enhancing the network's automation capabilities and use of the Interstate Job Bank, and implementing a revised reporting system and performance standards for the employment service.

These improvements will strengthen the nationwide network and put individual local offices in a better position to provide "one-stop" information and referral services to clients.

Unemployment Insurance. The Department continues to make great strides in improving the accountability and quality of its unemployment compensation programs. This is being achieved through the implementation of such integrity initiatives as the Performance Measurement Review project and the Quality Control program, and through the establishment of demonstration projects that explore alternative ways to use unemployment benefits to speed up the return of jobless workers to the workforce.

Steps Toward Lifelong Learning

Technical and Education Assistance for Mid- and Small-Sized Firms (TEAMS). In May 1992, the Department of Labor launched an initiative to assist medium- and small-sized firms in the development of effective programs in the areas of workforce literacy, technical training, work restructuring, and labor-management relations. As a first step, the Department entered into an agreement with the Department of Commerce to develop cooperative business assistance efforts that integrate human resource development and technology transfer. The Labor Department also joined with the National Association of Manufacturers to develop and conduct workshops to assist small businessowners in managing their human capital.

Additional collaborations are planned with Federal, regional, and State business assistance networks, as well as with national organizations. The resulting cooperative efforts will be targeted toward the development of an effective, responsive, client-driven system for helping small businesses to respond to the challenges posed by the changing climate in which they operate and compete. A National Workforce Literacy Collaborative is planned as the core of the TEAMS effort. The collaborative will be funded to create and disseminate informational material that will guide small and medium-sized businesses and labor unions in addressing workforce literacy problems.

National Advisory Commission on Work-Based Learning. The national Commission was established in October 1990 to provide advice to the Secretary of Labor on ways to increase the skill levels of the American workforce and to expand workers' access to work-based learning at all stages of their careers. The Commission has

spearheaded a national dialogue on the creation of voluntary, industry-based skill standards and certification to promote quality and to ensure portability of skills across industries and geographic regions.

To this end, the Departments of Labor and Education convened public hearings on the standards/certification issue at five locations across the country, planned a series of pilot projects to develop industry standards on a trial basis, initiated research necessary to support the hearings and pilots, and provided leadership to groups outside the Federal Government that are pursuing the same agenda.

Job Training 2000 Act. Designed to streamline the current Federal maze of vocational education and job training programs, this proposed legislation establishes a network of local Skill Centers to provide "one-stop shopping" for information about and referral to vocational and job training services, including JTPA and the public employment service. Under the proposal, the Private Industry Councils established by JTPA would have an expanded role of coordinating the delivery of services and ensuring quality and responsiveness to local needs.

The Job Training 2000 initiative also provides for a rigorous system of certification to ensure high standards of accountability and quality in education and training programs, and creates a unified voucher system to increase choices for training program participants.

We have awarded incentive grants to all 50 States to assist them in developing a Job Training 2000 strategy for their States. In addition, the Department funded 10 model Job Training 2000 sites throughout the country. These 10 projects are demonstrating the potential of key elements of the proposal, such as Skill Centers and quality assurance of vocational training programs.

I believe our focus on the program attributes identified—quality, accessibility, and accountability—can significantly improve the effectiveness of all our programs. And I believe this focus helps us make real strides toward achieving the goal of long-time employment security for all American workers within the context of improved skills that the world of the 1990s requires.

Obviously, our battle plan extends beyond the Department of Labor. We need the help of employers, State and local governments, unions, educators and trainers, volunteers, and workers themselves.

I challenge each of you to join our efforts to prepare the entire American workforce to compete in the modern workplace. Separately, our efforts will produce little. Working together, we can accomplish much. We can secure America's stronghold as a leader in the global market.

Lynn Martin
Secretary of Labor

November 1992

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CHAPTER 1

PROGRAM ACTIVITIES

PROGRAM ACTIVITIES

INTRODUCTION

Chapter 1 of the *Training and Employment Report of the Secretary of Labor* reviews the various programs administered by the Department of Labor's Employment and Training Administration (ETA), the Federal agency that oversees the Nation's major job training, employment, and unemployment compensation programs. It covers a two-year period, spanning Program Years 1988 and 1989 (July 1988-June 1990) and Fiscal Years 1989 and 1990 (October 1988-September 1990). (Some ETA programs operate on a program year basis, others on a fiscal year.)

A major employment and training thrust of the Department during the period covered by the *Report* was implementing the "Workforce Quality Agenda for Action." This initiative translated the ideas and discussions generated by several Departmental projects of previous years—including Workforce 2000, Building a Quality Workforce, the Commission on Workforce Quality and Labor Market Efficiency, and Apprenticeship 2000—into action steps to help ensure a productive, competitive, and modern American work force. The competitive workplace of today—regardless of the product or service—is a high skill environment designed around technology, and it demands people who are technically competent.

The Department also placed new emphasis on the concept of work-based learning during the two-year period, and a new office was established within ETA to foster cooperative ventures among businesses, government agencies, labor organizations, and other groups to educate and train the Nation's citizens, through projects focused on work-based learning and school-to-work transition.

This introductory section describes the seven elements of the Workforce Agenda, reports on special work-based learning and school-to-work activities of the new office, and highlights three other major employment and training initiatives: the Administration's proposals to amend the Job Training Partnership Act (JTPA), the Youth Opportunities Unlimited (YOU) demonstration grants, and implementation of the Job Training for the Homeless Demonstration Program, under the McKinney Homeless Assistance Act.

The remainder of the chapter examines developments in individual programs administered by ETA: the JTPA programs, the Job Training for the Homeless Demonstration Program, apprenticeship, the Senior Community Service Employment Program, the Employment Service, unemployment insurance, Trade Adjustment Assistance, the Work Incentive Program, and the Labor Surplus Areas Program. Also included are descriptions of the activities of two independent Federal committees concerned with employment-related issues, the National Commission for Employment Policy and the National Occupational Information Coordinating Committee. An appendix at the end of the *Report* provides additional statistical information.

Workforce Quality Agenda for Action

In late 1989, the Department developed an ambitious agenda to address head-on the pressing problems of the American work force that had come to the forefront of national attention in the late 1980s and to help workers meet the rising skill requirements of the workplace. The Workforce Quality Agenda mapped out strategies to improve and enhance existing Departmental programs and explored creative, new approaches to meet the challenges of competing in world markets.

A brief summary of the agenda activities undertaken during the *Report* period follows, with agenda items highlighted in the accompanying box.

The Workforce Quality Agenda for Action

Defining Skills Needed in the Workforce
- The Secretary's Commission on Achieving Necessary Skills

Assisting Youth in the Transition to Work
- Research on School-to-Work Models
- National School-to-Work Conference

Enhancing the Skills of Employed Workers
- Research on Training Incentives
- National Advisory Commission on Work-Based Learning

Intensifying Efforts to Utilize Available Workers
- Workforce Quality Clearinghouse
- Research on Child Care

Increasing Labor Market Efficiency
- Employment Service Review
- Research on Labor Shortages
- Revision of the *Dictionary of Occupational Titles (DOT)*

Recognizing Exemplary Practices
- Secretary's Labor Investing for Tomorrow (LIFT) Awards

Increasing Volunteer Efforts
- Partners for Tomorrow

Defining the Skills Needed in the Workforce. In April 1990, the Secretary's Commission on Achieving Necessary Skills (SCANS) was established to define the skills workers need to close the gap between educational achievement and workplace requirements. Comprised of high-level business, labor, and education leaders, the Commission was directed to advise the Secretary on the type and level of skills required to enter employment. The guidelines were to aid educators, parents, employers, and union representatives in ensuring that the Nation's students and workers have the skills and adaptability needed to succeed in today's workplaces.

Assisting Youth in the Transition to Work. To address this issue, the Department funded a series of research and demonstration projects that combine the learning of academic skills with applied learning in workplace settings and are intended to create models that may be replicated and adapted by educators and employers for building local school-to-work transition systems. The Department convened a national conference, cosponsored with the U.S. Department of Education, on the "Quality Connection: Linking Education and Work." The conference explored options for fundamental reform of how noncollege-bound youth are assisted in their transition to work. (These activities are described in more detail in the section on work-based learning/school-to-work activities which begins on page 5.)

Enhancing the Skills of Employed Workers. The Department undertook a number of initiatives to increase investments in skill training by funding research and demonstration projects which: (1) study the effectiveness of existing incentives for employer-financed training; and (2) form partnerships with industry groups to promote and implement structured workplace training programs. It also began planning for the establishment of the National Advisory Commission on Work-Based Learning, whose high-level representatives from business, education, labor, and government are to advise the Department on ways to increase the skill levels of the American work force and expand access to work-based learning. The Commission will develop recommendations on skill certification according to industry-recognized standards. (The demonstration projects are more fully described under work-based learning/school-to-work activities; a review of a research report on financial incentives for employer-provided training appears in Chapter 2.)

Intensifying Efforts to Utilize Available Workers. The Department established a Workforce Quality Clearinghouse, an employer-focused computerized information base of "best practices"—programs and policies employers have implemented to recruit, promote, and retain a stable and skilled work force. Its objective is to assist and encourage employers in their efforts to intensify their utilization of available workers by actively promoting and sharing employer-sponsored workforce quality programs and policies. The clearinghouse began operating in September 1990.

The Department also funded research projects in the area of child care assistance. (These studies are summarized in Chapter 2.)

Increasing Labor Market Efficiency. In a series of Employment Service Information Exchange Forums, the Department reviewed the role of the Federal-State Employment Service system to examine ways in which it may address the emerging needs of the Nation's labor markets. Also during the *Report* period, the Department began a process to upgrade the *Dictionary of Occupational Titles (DOT)*, which classifies jobs by types of skills required. (Additional information on these activities is provided under the Employment Service section.)

Recognizing Exemplary Practices. In September 1990, the Department honored 16 business and public organizations with the first annual "LIFT" Awards—Labor Investing for Tomorrow. The awards, designed to encour-

age the discovery and application of creative community-based solutions to address workforce challenges, can be made to private sector employers, trade associations, community organizations, schools, community and junior colleges, and labor and educational organizations. In 1990, awards were made for outstanding programs in the following categories:

- Business-school partnerships in which the private sector cooperates with schools to improve education and academic achievement;
- School-to-work programs to give job-bound youths an effective and structured transition to worthwhile employment;
- Employee training programs to upgrade the skills of already-employed and entry-level workers; and
- Employee worklife programs to improve the quality of worklife through better relations between management and workers, increased worker participation in decision-making, or reduced conflict between home and work responsibilities.

Increasing Volunteer Efforts. The Department planned a national volunteer campaign—Partners for Tomorrow—offering opportunities for business and labor to assist students who are deemed at risk of failing in school and, ultimately, in the work world. The campaign provided visibility and recognition for participants. It also provided promotional materials and suggested program models for local use. During the *Report* period, a study on *The Potential Role of Voluntarism in JTPA* was completed. (A summary of the study appears in Chapter 2.)

The Department made significant progress during the *Report* period in implementing key elements of the Workforce Quality Agenda and creatively responding to the Nation's workforce challenges, as the following sections in this chapter and Chapter 2 illustrate.

Work-Based Learning and School-to-Work Transition Activities

In November 1989, the Department published a report entitled *Work-Based Learning: Training America's Workers*. The report provided a framework for new national leadership on skill development for American workers and outlined an expanded role for the Department in the area of work-based learning. In the past, the Department had focused its job training resources on the needs of specific population groups, including at-risk youth and dislocated workers. In January 1990, with the establishment of the Office of Work-Based Learning in ETA, the Department expanded its emphasis on the labor force overall by encouraging the development of new work-based training models throughout the Nation.

The concept of work-based training attempts to apply the successful principles of apprenticeship beyond its traditional base in the building and manufacturing trades to other fields, such as banking and health care. The apprenticeship approach is a structured combination of (1) on-the-job training and classroom instruction, (2) agreements between program sponsors and apprentices concerning training content and desired outcomes, and (3) nationally recognized credentials that apprentices gain upon successful program completion.

A number of the recommendations contained in the report were subsequently incorporated into the Department's Workforce Quality Agenda for Action. As a result, the new office spearheaded for the Department the design of national initiatives to implement the policy and program recommendations of the report.

Grants were awarded to three organizations to develop work-based learning demonstration projects. In conjunction with the National Alliance of Business, the Department coordinated four Job Performance Learning Programs to expand work-based training to service and high-technology industries in occupations that traditionally do not use apprenticeship as a training technique. The Human Resources Development Institute (HRDI) conducted projects that incorporated apprenticeship practices to upgrade worker skill levels for machine repair technicians, health care occupations, and machine tool operators. A third grantee was 70001, whose name has since been changed to WAVE (Work, Achievement, Values and Education, Inc.). WAVE worked with small- to mid-size businesses to incorporate the use of work-based learning in training child care providers and recreational vehicle technicians.

Under the direction of the new ETA office, the Department planned and convened with the Department of Education a national conference on school-to-work transition issues in Washington, D.C., in May 1990. The conference, entitled "Quality Connection: Linking Education and Work," launched a national effort to facilitate student transition from school to the workplace. It was attended by 165 educators, business and labor leaders, State and local government officials, and others. The Department published a report summarizing the conference's findings and recommendations in the following areas: (1) how business involvement in the education-work connection can be strengthened; (2) how school-to-work programs can assure work-bound youth a range of choices; (3) how work-connected learning should relate to the educational setting; (4) the key characteristics of school-to-work transition program models; and (5) how accountability can be built into school-to-work transition efforts.

Following the conference, the Department awarded six grants, combining $3.2 million of Federal money and

$7.3 million of grantee funds, to test innovative approaches for linking businesses, schools, and community-based organizations in assisting youth in their transition from school to work. The demonstration projects, which combine work-based learning with school-based learning, were to be implemented over a two-year period by the Pennsylvania Department of Commerce, the Los Angeles Unified School District, the Boston Private Industry Council, the Maryland Department of Economic and Employment Development, the National Alliance of Business, and the Electronics Industry Association.

Other Program Highlights

During the *Report* period, the Department was involved in the development of Administration-proposed amendments to JTPA, launched the YOU demonstration program, and implemented a demonstration program that provides job training for the homeless.

Proposed JTPA Amendments. In June 1989, the Administration transmitted to Congress proposed amendments to JTPA. The amendments were intended to improve the targeting of JTPA programs to those persons facing serious barriers to employment, particularly young, disadvantaged entry-level workers; enhance program quality by providing more intensive and comprehensive services to participants; promote fiscal accountability and integrity; and further the coordination of human resource programs serving the disadvantaged.

Youth Opportunities Unlimited. The YOU program was initiated in Program Year (PY) 1989 with three-year JTPA grants of $19 million to provide comprehensive employment and training services to youth in high-poverty areas. The grants fund highly structured demonstration projects, involving model community and neighborhood programs. The projects concentrate resources in a small geographic area to provide an integrated array of services. Community-wide participation and the requirement that grantees set measurable goals for the projects increase the chance that high-risk youth will find jobs, develop careers, and lead productive lives.

Job Training for the Homeless Demonstration Program. The Stewart B. McKinney Homeless Assistance Act of 1987, a comprehensive response to the variety of needs faced by homeless people in the United States, authorizes the Job Training for the Homeless Demonstration Program. Administered by the Department, the demonstration began operating in October 1988. It provides homeless persons with a variety of job-related services in coordination with community programs.

These initiatives are discussed in more detail under the JTPA and the Job Training for the Homeless sections of this chapter.

JOB TRAINING PARTNERSHIP ACT PROGRAMS

Programs authorized by JTPA provide job training services for economically disadvantaged adults and youth, dislocated workers, and others who face significant employment barriers. Implemented on October 1, 1983, the legislation is designed to help workers attain permanent, self-sustaining employment.

This *Report* covers JTPA operations in PY 1988 (July 1, 1988 through June 30, 1989) and PY 1989 (July 1, 1989 through June 30, 1990). JTPA served a total of approximately 2.2 million persons in PY 1989 and 2.3 million in PY 1988, with expenditures totaling over $3.7 billion in each program year.[1]

JTPA program information is presented in three parts:

- The first part includes a title-by-title summary of the legislation and describes how the training delivery system works, the services and programs the legislation authorized during the two years covered by the *Report*, and the performance standards employed to measure program outcomes.
- The second part highlights three special activities of the Department during the *Report* period—the development of proposed amendments to JTPA, the Youth Opportunities Unlimited grants, and coordination of JTPA activities with the new Job Opportunities and Basic Skills (JOBS) program.
- The third part provides an overview of the activities and outcomes of programs for adults and youth (Titles II-A and B); dislocated workers (Title III), including the transition to the new Economic Dislocation and Worker Adjustment Assistance (EDWAA) program; and nationally administered programs targeted to groups with special needs (Title IV).

Program Overview

Under JTPA, the Federal Government (the Department of Labor) sets broad program policy; allots funds to the States; prescribes performance standards; helps ensure program and fiscal integrity through monitoring and auditing; provides technical assistance; evaluates programs and supports research and demonstration projects; and is responsible for directly administering programs for certain groups of workers.

State and local governments, however, in partnership with the private sector, are responsible for the actual

[1] The number of persons served by JTPA represents the total number of participants served under the individual titles (Titles II, III, and IV, including veterans programs). Some participants were enrolled under more than one title. Expenditures cover costs of Titles II, III, and IV, including veterans activities.

management and administration of the major JTPA programs. Governors have approval authority over locally developed plans and are responsible for monitoring program compliance.

The Training Delivery System

Title I of JTPA establishes the administrative structure for the delivery of job training services. The following elements are included:

State Job Training Coordinating Councils are appointed by Governors and composed of representatives of business, State legislatures, State agencies, local government and educational agencies, labor, community-based organizations, and the general public. The council provides the Governor advice and counsel on training components of the Act and recommends the designation of Service Delivery Areas.

Service Delivery Areas (SDAs), designated by the Governors to receive Federal job training funds, are the administrative districts into which the Nation is divided for JTPA purposes. Among the areas automatically eligible to be SDAs are units of local government with populations of 200,000 or more. There were 635 and 634 SDAs in PY 1989 and PY 1988, respectively.

Private Industry Councils (PICs) are established by local elected officials in each SDA to provide guidance and oversight for job training programs at the SDA level. PICs serve as key mechanisms for bringing representatives from various segments of the private sector into the active management of job training programs. PIC membership includes representatives from business, educational agencies, organized labor, rehabilitation agencies, community-based organizations, economic development agencies, and the public employment service. The majority of a PIC's members must represent business and industry executives or owners within the SDA, and the PIC chairperson must be a private sector representative.

Services and Programs

Title II-A provides for training and other services for the economically disadvantaged and others who face significant employment barriers. Activities include classroom and on-the-job training, job search assistance, and related services. Funds are made available through block grants to States for local programs, according to a formula which is based on the relative shares of jobless and economically disadvantaged persons in each State. Seventy-eight percent of a State's Title II-A funds must be allocated by formula to local SDAs. States retain the remaining 22 percent of funds for: (1) State education programs (8 percent); (2) incentive grants for programs exceeding performance standards and technical assistance (6 percent); (3) training programs for older workers (3 percent); and (4) auditing and administrative purposes and support for the State Council (5 percent).

Title II-B provides economically disadvantaged youth with jobs and training services during the summer months. These services include basic and remedial education, institutional and on-the-job training, work experience, and supportive services. Funds are distributed to the States and to SDAs by the same formula used for Title II-A monies.

Title III authorizes services for dislocated workers. In August 1988, as part of the Omnibus Trade and Competitiveness Act, Congress enacted the Economic Dislocation and Worker Adjustment Assistance (EDWAA) Act, which replaced the previous Title III of JTPA. EDWAA is designed to improve the delivery of services to dislocated workers—workers who are unlikely to return to their previous occupation or industry, including workers terminated or laid off from their jobs or workers who have received notice of termination or lay off; the long-term unemployed; and self-employed persons whose job loss is due to general economic conditions or natural disasters.

Services dislocated workers may receive include basic readjustment, such as job search, job and career counseling, and relocation assistance; retraining; and needs-related payments. EDWAA established State rapid response units to provide early intervention assistance, often within 48 hours of a layoff announcement. Eighty percent of the funds available are allotted by formula to the States; 20 percent of the funds are retained by the Secretary for special project grants.

Title IV authorizes the Job Corps and programs for Native Americans, migrant and seasonal farmworkers, and veterans, which are administered directly by the Department. It also authorizes the National Commission for Employment Policy (NCEP), the National Occupational Information Coordinating Committee (NOICC), and federally administered technical assistance, labor market information, research and evaluation, and pilots and demonstrations.

In November 1988, Congress enacted the Jobs for Employable Dependent Individuals (JEDI) Act, which became **Title V** of JTPA. It would establish an incentive bonus program for States that provide services to certain categories of individuals and move these individuals from various assistance programs into jobs. Funding for any fiscal year for this title is contingent on an increase in the appropriation for Title II-A that exceeds any increase in the Consumer Price Index. (This condition has not been met, so the program is not operational.)

Title VI amends the Wagner-Peyser Act of 1933, which authorizes Federal-State Employment Service programs.

Table 1 presents summary information on the number of participants and expenditure levels for selected JTPA programs during the *Report* period.

Performance Standards

Performance standards are a unique feature of JTPA, reflecting an emphasis, through quantified measures of performance, on training outcomes and State and local accountability. Established by Title I, performance standards gauge how well the JTPA system is meeting the following objectives of the Department of Labor:

- Targeting services to at-risk populations;
- Improving the quality and delivery of services that lead to long-term employability and increased earnings;
- Placing emphasis on basic skills acquisition to qualify for employment or advanced education or training; and
- Promoting comprehensive coordinated human resource programs to address the multiple needs of at-risk groups.

Performance standards are used to measure program outcomes for Titles II-A and III and several programs in Title IV (Native American, Migrant and Seasonal Farmworker, and Job Corps programs).

Special Activities

This section provides an overview of two special JTPA initiatives undertaken by the Department: the develop-

Table 1. JTPA Expenditures and Participant Levels for Selected Programs

Expenditures/Participants	PY 1989	PY 1988
Title II-A:		
Expenditures	$1.8 billion	$1.8 billion
Participants	1.2 million	1.2 million
Title II-B[a]:		
Expenditures	$706.9 million	$727.2 million
Participants	598,000	621,000
Title III:		
Expenditures	$311 million	$256 million
Participants	236,000	208,000
Title IV:		
Native American:		
Expenditures	$57.8 million	$57.5 million
Participants	31,000	31,000
Migrants/Farmworkers:		
Expenditures	$66.3 million	$63.8 million
Participants	55,000	54,500
Job Corps:		
Expenditures	$725.8 million	$705.4 million
Participants	101,000	106,000

Note: The total number of persons served by JTPA represents the total number of participants served under the individual titles. Some participants were enrolled under more than one title at different times during the year. Participants include new enrollees and those on board at the beginning of the program year.

[a] The summer figures (Title II-B) are for the summer of 1989 and the summer of 1990. They include expenditures and enrollments for Native American youth programs, as well as SDA programs.

Source: U.S. Department of Labor, Employment and Training Administration.

ment of proposed amendments to JTPA and the initiation of a three-year YOU grant program, targeted to at-risk youth in high-poverty areas. It also discusses Department efforts to assist in the implementation of the new Job Opportunities and Basic Skills (JOBS) program.

Proposed Amendments to JTPA

In June 1989, the Administration transmitted to Congress proposed amendments to JTPA. The amendments were based in large part on the input of the JTPA Advisory Committee—a panel of representatives of the JTPA system, labor, business, education, academia, community-based organizations, public interest groups, veterans, and the general public.

Under the proposed amendments, eligibility criteria were changed to target more funds to those who experience employment barriers, such as the lack of basic skills, welfare dependency, and homelessness, in addition to being economically disadvantaged. Funding formulas were revised to provide more resources to areas having a larger share of the disadvantaged population.

The proposal called for improving the quality of services by assessing the skills and needs of every program participant and preparing individual service strategies. The proposed amendments also were geared toward guiding JTPA programs to provide services which improve the long-term employability of participants. In addition, specific linkages with other programs and entities were required to improve service delivery and avoid duplication. Another provision called for establishing a separate year-round youth program to replace the Summer Youth Employment Program.

Significant changes were included to ensure fiscal and program accountability in JTPA. These provisions were in such areas as contracting, cost accountability, procurement, and monitoring.

No final action was taken on the proposed amendments during the 101st Congress.

Youth Opportunities Unlimited Program

The YOU program was initiated in PY 1989 with $19 million in three-year grants to provide comprehensive employment and training services to youth in high-poverty areas. The grants provide for highly-structured demonstration projects involving model community or neighborhood programs. While Labor Department funds were to be used for specific job training and education programs, the grantees committed themselves to developing supportive initiatives in the areas of housing, health, child development, sports and recreation, and family support.

YOU concentrates resources in a small geographic area to provide an integrated array of services and thereby increase the chances that high-risk youth will find jobs, develop careers, and lead productive lives. To ensure program accountability and integration of services, grantees are required to set goals and demonstrate the support or participation of State and local governments, school systems, the private sector, and community organizations.

Seven grants were awarded—to the State of Mississippi and the cities of Los Angeles, San Diego, Columbus, Atlanta, Philadelphia, and Baltimore—for operation of YOU projects in some of the poorest neighborhoods and rural communities in the country. The grantees follow program models that offer comprehensive services aimed at having a long-term impact on youth. Examples include learning centers that are nonresidential and offer basic skills development, vocational training and supportive services, alternative schools that serve students who are dropouts or potential dropouts, and community improvement projects in which youth are trained in construction trades while rehabilitating dilapidated housing. Grantees may also draw on models from school-to-apprenticeship programs, teen parent programs, and the Summer Training and Education Program.

The YOU initiative was contained in the proposed amendments to JTPA as a program to be operated in up to 40 communities.

Coordination of the JOBS Program

In 1988, Congress passed a major new welfare initiative, the Family Support Act (P.L. 100-485). The core of the legislation is the Job Opportunities and Basic Skills (JOBS) program, which is designed to educate, train, and employ recipients of Aid to Families with Dependent Children (AFDC) and thus assist them in becoming self-sufficient. JOBS replaced the Work Incentive (WIN) program as of October 1, 1990. (See section on WIN.)

Administered at the national level by the Department of Health and Human Services (HHS), the new program provides welfare recipients with a broad range of services and activities, including educational activities, job skills training, job readiness, job development and placement, and support services, such as child care. One objective of JOBS is the coordination of operations with those of existing education and training resources, like JTPA.

To this end, in November 1989, the Department of Labor joined HHS and the Department of Education in signing an interagency agreement to collaborate in a jointly-funded three-year technical assistance effort to educate the appropriate components of the JTPA, welfare, and education systems about how to combine services and more effectively serve JOBS participants. A key emphasis of the coordination effort is literacy and basic skills services.

JTPA Programs by Title

The following is a review of JTPA programs by title for Program Years 1988 and 1989, including a brief description of each title's allowable activities and eligible participants, program outcomes, and performance standards.

Adult and Youth Programs, Title II-A

In Program Year 1989, approximately 1.2 million adults and youth received employment-related services under Title II-A, JTPA's basic block grant program. In PY 1988, over 1.2 million participants were served. Expenditures in each year totaled over $1.8 billion.[2]

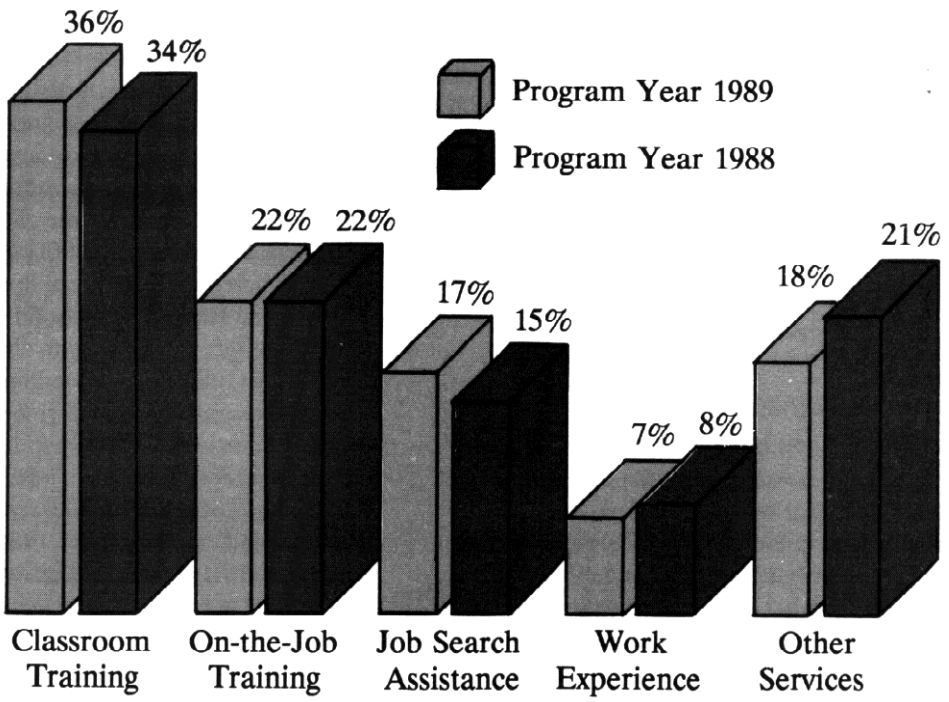
Most of the Title II-A projects were provided by the network of SDAs across the Nation. These SDA programs accounted for 79 percent of total enrollment, or some 935,000 persons, in PY 1989, and 80 percent, or some 1 million persons, in PY 1988. State-administered programs accounted for the remaining enrollment.

Ninety-three percent of Title II-A participants were economically disadvantaged in PY 1989, while in PY 1988 the figure was 95 percent. Up to 10 percent of Title II-A participants need not be economically disadvantaged if they face other barriers to employment.

The services provided under Title II-A include classroom and on-the-job training (OJT), job search assistance, work experience, remedial education, supportive services, and other types of job-related assistance, including transition services, preemployment skills counseling, vocational counseling, personal counseling, and assessment.

[2] Title II-A expenditures are from the JTPA Semiannual Status Report. Title II-A participant data are from the JTPA Annual Status Report, except the following which are from the Job Training Quarterly Survey (JTQS): percentage of participants economically disadvantaged, entered employment rates by program activity, and percentage of clients served by program activity. All participant characteristics and experiences are those of PY 1988 and PY 1989 terminees, that is, persons who left JTPA programs during the two program years. (The JTQS provides information on a nationally representative sample of terminees.)

Chart 1. Distribution of JTPA Title II-A Participants by Type of Program Activity



Source: U.S. Department of Labor, Employment and Training Administration, Job Training Quarterly Survey.

Chart 1 shows the percentage of terminees receiving these services in each of the program years. In both years, participants in OJT and job search assistance had the highest entered employment rates, followed by those receiving other services, classroom training, and work experience.

There were higher percentages of women, recipients of various types of public assistance, and dropouts enrolled in classroom training than in other program activities in the 1988-1989 period. The OJT category served a greater portion of men and unemployment insurance claimants. The work experience category had the largest percentages of youth and handicapped persons, and job search assistance served proportionately more workers over age 55.

Table 2 lists the participant characteristics of Title II-A terminees in the two program years, broken out by adults and youth. The characteristics are comparable in both program years.

Table 2. JTPA Titles II-A and II-B: Selected Participant Characteristics (Percent Distribution)

Characteristic	Title II-A: Adult		Title II-A: Youth		Title II-B	
	PY89	PY88	PY89	PY88	1990	1989
Sex:						
Male	44	45	49	49	50	50
Female	56	55	51	51	50	50
Age:						
14-15	—	—	15	10	42	41
16-21	—	—	85	90	58	59
22-54	97	97	—	—	—	—
55 and over	3	3	—	—	—	—
Education:						
Dropout	27	28	26	27	4	4
Student	—	—	47	44	87	87
HS graduate	73	72	27	29	9	9
Race/Ethnicity:						
White	53	53	45	45	30	31
Black	30	29	35	35	40	40
Hispanic	14	14	16	16	26	24
Native American	2	2	2	2	1	1
Asian	2	2	2	2	3	3
Limited English	5	5	3	3	6	4
Handicapped	10	10	14	14	14	13
Single Head of Household	32	30	10	10	3	3

Note: Title II-A data are based on characteristics of terminees—persons who left JTPA during Program Years 1988 and 1989 and are for programs operated by SDAs. Title II-B data, also for programs operated by SDAs, are for the summers of 1989 and 1990. Items may not add to 100 percent due to rounding.

Source: JTPA Annual Status Report for Title II-A and JTPA Summer Youth Performance Report for Title II-B. U.S. Department of Labor, Employment and Training Administration.

Other JTPA Title II-A performance data for Program Years 1989 and 1988 include the following:

- The program placed in jobs over 393,000 individuals, or 59 percent of terminees, in PY 1989. In PY 1988, more than 446,000 individuals, or 60 percent of terminees, were placed in jobs.
- The adult and adult welfare entered employment rates remained unchanged in both program years, 71 percent and 62 percent, respectively.
- In PY 1989, the youth positive termination rate was 77 percent and the youth entered employment rate was 44 percent; the figures in PY 1988 were 80 percent and 46 percent, respectively.
- The average hourly wage at placement for adults increased from $5.39 in PY 1988 to $5.64 in PY 1989.
- Participants stayed in the program an average of 21 weeks in PY 1989, an increase of two weeks over PY 1988.

Effective beginning Program Years 1988 and 1989, the Title II-A performance standards were changed to encourage training that leads to long-term employability and increased services for adults and at-risk youth. To the seven existing measures, five additional ones were added—four "post-program" measures to assess job retention and earnings 13 weeks following participation in the program, and one "youth employability enhancement" rate to measure nonemployment outcomes that increase long-term employability and earnings potential. Governors were required to adopt at least eight of the 12 measures.

Governors continue to be permitted to modify the national performance standard levels to account for local conditions that affect SDA performance, such as economic factors, participant characteristics, and the kinds of services provided. The Department annually updates an adjustment model that enables Governors to adjust their standards. The adjustment methodology prevents performance standards from penalizing SDAs for serving hard-to-serve populations, or for operating programs in difficult labor market conditions.

During the period covered by the *Report*, new performance standards were established for Program Years 1990 and 1991, based on a developmental process that included participation of all segments of the JTPA system. The new standards, which eliminate cost standards to encourage longer-term training for hard-to-serve participants, represent a shift from a menu approach to a mandatory, streamlined, policy-focused core of six measures.

The four required adult and welfare employment and earnings measures emphasize participants' long-term employability and self-sufficiency, as measured 13 weeks after leaving the program. The two required youth measures reinforce the Department's emphasis on the development of employability skills and placement of youth who are job-ready. By redefinition, the youth entered employment rate applies only to those youth for whom employment is the appropriate outcome. Excluded from the computation are those youth who are in school and enrolled in dropout prevention or recovery programs. Table 3 documents the changes in performance standards over the PY 1986-PY 1991 period.

Table 3. Title II-A Performance Standards

Measure	PY 1986-1987	PY 1988-1989	PY 1990-1991
Title II-A Adult			
Entered Employment Rate	62%	68%	—
Cost Per Entered Employment	$4,374	$4,500	—
Average Wage at Placement	$4.91	$4.95	—
Welfare Entered Employment Rate	51%	56%	—
Title II-A Youth			
Entered Employment Rate	43%	45%	45%
Positive Termination Rate	75%	75%	—
Employability Enhancement	—	30%	33%
Cost per Positive Termination	$4,900	$4,900	—
Post-Program			
Follow-Up Employment Rate	—	60%	62%
Welfare Follow-Up Employment Rate	—	50%	51%
Follow-Up Weeks Worked	—	8	—
Follow-Up Weekly Earnings	—	$177	$204
Welfare Follow-Up Weekly Earnings	—	—	$182

Source: U.S. Department of Labor, Employment and Training Administration.

As part of a continuing technical assistance effort to help JTPA staff use and apply performance standards effectively, training on the new standards was held at five sites in PY 1989. Major topics covered during the three-day sessions included: (1) the new PY 1990-1991 performance standards; (2) successful case management; (3) how to operate quality training programs; (4) use of incentive policies; and (5) post-program data collection. The Department distributed technical assistance guides, reports, and papers related to performance standards at the sessions.

Summer Youth Programs, Title II-B

Summer Youth Employment and Training Programs, authorized under Title II-B, are conducted by SDAs, which are required to assess the reading and math levels of eligible Title II-B participants and provide basic remedial education services for enrollees who do not meet locally determined education standards. In addition to education services and work experience with public and private nonprofit agencies, summer participants may receive classroom and on-the-job training, counseling, and other supportive services.

In the summer of 1990, SDAs provided jobs, education, and training to nearly 585,000 participants, while in the summer of 1989 they served approximately 608,000 individuals. Total SDA summer expenditures were nearly $694 million in 1990 and almost $714 million in 1989.[3]

In general, participant characteristics in 1990 were similar to those of the previous year. Characteristics are displayed in Table 2.

Dislocated Worker Programs, Title III

During PY 1988, Governors operated dislocated worker programs as they were authorized by Title III of JTPA with the law's enactment in 1982. Beginning July 1, 1989, the Economic Dislocation and Worker Adjustment Assistance (EDWAA) program—a new, more comprehensive approach to serving these workers—went into effect. EDWAA, which replaced the original Title III, was authorized by the Omnibus Trade and Competitiveness Act of 1988 (P.L. 100-418).

EDWAA includes several innovations, such as the establishment of State rapid response units to quickly help workers and communities faced with major plant closings and mass layoffs, provision for labor-management committees in impacted communities to assist in the adjustment process, and authorization of certificates of continuing eligibility that permit workers who cannot immediately begin training to retain their eligibility for up to two years following layoff.

Title III programs, which originally were administered at the State level, are administered at both the local and State levels under EDWAA. Eighty percent of the funds are distributed to the States by a formula that considers relative joblessness. (Twenty percent of the funds are retained for the Secretary's reserve account. See below.) A Governor can reserve up to 40 percent of the State's allotment for State responsibilities, including the rapid response unit, and can reserve up to 10 percent for allocation to sub-State areas (usually SDAs) according to need during the program year. The remaining funds (at least 50 percent of the State's allocation) are then distributed by a State-prescribed formula to sub-State areas.

Services provided under EDWAA range from basic readjustment assistance to long-term retraining and needs-related payments that provide income support to eligible workers in training. Retraining is emphasized by requiring that at least 50 percent of sub-State expenditures be spent on retraining services. Eligibility requirements for participation in EDWAA are essentially unchanged from those of the original Title III.

While States continued in PY 1988 to provide services under the original program structure, a series of transition activities was carried out to prepare for the July 1989 EDWAA implementation date. These included publishing regulations for EDWAA, establishing dislocated worker administrative units in each State, designating sub-State areas and grantees, and developing and submitting State plans. National and regional planning conferences were held to provide guidance and technical assistance.

Beginning in PY 1989, in the first three months of the EDWAA operations, the Department's regional offices conducted monthly observations on the startup phase of EDWAA in all States and selected sub-State areas. During the remainder of PY 1989, the Department assessed State and sub-State progress, as a followup to the monthly observations. The assessment focused on achievement in nine critical areas reflecting the major features being implemented under the new program: (1) the Dislocated Worker Unit, (2) sub-State ability to respond to local plant closures or layoffs, (3) State financial management systems, (4) sub-State programs, (5) the 50 percent training requirement, (6) labor organization involvement, (7) cooperative relationships and linkages, (8) State "40 percent" programs, and (9) State management. The information was used to assess and address implementation issues.

During the transition year (PY 1989), Title III activities served some 236,000 participants at a cost of $311 mil-

[3] Funds for the 1989 and 1990 summer programs were included in JTPA appropriations for Program Years 1988 and 1989; thus this *Report* discusses the 1989 and 1990 summer programs. The source of statistics on these programs is the JTPA Summer Youth Performance Report.

Table 4. JTPA Title III Selected Participant Characteristics and Program Activity (Percent Distribution)

Characteristic	PY 1989	PY 1988
Sex:		
Male	57%	60%
Female	43	40
Age:		
29 and under	25	27
30-54 years	67	65
55 and over	7	8
Education:		
Less than high school	17	16
High school graduate	83	83
Race/Ethnicity:		
White	69	71
Black	17	17
Hispanic	12	9
Native American	1	1
Asian	2	2
Unemployment Insurance Claimant	49	47
Limited English	4	3
Handicapped	3	3
Single Head of Household	12	11
Program Activity:		
Classroom Training	36	30
On-the-job Training	21	20
Job Search Assistance	28	34
Other	15	16

Note: All data reflects characteristics/activities of terminees. Figures may not add to 100 percent due to rounding.

Source: Statistics on characteristics are from the JTPA Annual Status Report and the Worker Adjustment Annual Program Report; data on program activity are from the Job Training Quarterly Survey. U.S. Department of Labor, Employment and Training Administration.

lion. In PY 1988, 208,000 participants were served, and expenditures totaled $256 million.[4] Other highlights of the two-year period include the following (see also Table 4 for information on terminee characteristics and program activity):

- The 145,000 individuals who left the program in PY 1989 had an average length of participation of 19 weeks, while in PY 1988 the 136,000 terminees were enrolled in the program for an average of 21 weeks.
- The average hourly wage at placement was $7.52 in PY 1989 and $7.54 in PY 1988.
- In PY 1989, 68 percent of the Title III terminees entered employment; in PY 1988 the rate was 69 percent.

Included in the participant and expenditure figures for dislocated worker programs are data for the Secretary's Title III reserve account. A total of $53.8 million was awarded for 72 reserve account (or discretionary) projects in 31 States during PY 1989. In PY 1988, when the national reserve account represented 25 percent of total funding, 125 awards were made—at least one to each State, the District of Columbia, and Puerto Rico—for a total of $71.8 million.

Reserve account activities offered services to displaced workers from a variety of manufacturing and service industries, including the automobile, food processing, and coal mining industries. In PY 1989, six projects were initiated in response to natural disasters. In PY 1988, 13 of the projects responded to the severe drought in different parts of the country, 53 were the result of an initiative to facilitate the implementation of EDWAA, and 21 were for special EDWAA transition grants.

As to performance standards, in PY 1988 Governors were required to establish a statewide entered employment rate standard for State-administered Title III programs. The standard was maintained for State-administered programs and applied to the new sub-State area programs in PY 1989. (The Department-established national Title III entered employment rate standard was 64 percent for State programs for both years and for sub-State programs in PY 1989. Governors can adjust their standards to take into account economic/demographic factors that could affect outcomes.) Governors also were encouraged to set an average wage at placement standard for dislocated worker programs in their States.

While not part of JTPA, another new law—the Worker Adjustment and Retraining Notification Act (WARN—P.L. 100-379)—also affects dislocated worker programs.

[4] The source of Title III expenditure data is the JTPA Semiannual Status Report and the Worker Adjustment Program Quarterly Financial Report. Participant data is from the JTPA Annual Status Report and the Worker Adjustment Annual Program Report.

WARN, which became effective in February 1989, requires that, with certain exceptions, employers of 100 or more workers give at least 60 days advance notice of plant closing or mass layoffs to affected workers or their representatives, to the State dislocated worker unit, and to the appropriate local government. The Department published regulations for WARN during PY 1988.

National Programs, Title IV

JTPA's Title IV programs are administered at the national level and are designed to provide services to special target groups. Four categories of Title IV activities are discussed in this section: programs for Native Americans, programs for migrant and seasonal farmworkers, the Job Corps, and pilot and demonstration programs.[5]

Native American Programs. To help eligible individuals prepare for and hold productive jobs, Native American programs offer job training, job referrals, counseling, and other employment-related services, such as child care, transportation, and training allowances. Those eligible for the programs include Indians, Eskimos, Aleuts, Hawaiians, and other persons of Native American descent who are economically disadvantaged, unemployed, or underemployed.

One hundred eighty-two program grantees in PY 1989 and 186 grantees in PY 1988 served approximately 31,000 Native American participants each year in all 50 states and the District of Columbia. The grantees included Indian tribes, other Native American communities, and various related organizations. Their expenditures totaled $57.8 million in PY 1989 and $57.5 million in PY 1988.

Approximately 55 percent of the 25,000 participants in PY 1989 and 52 percent of the 25,000 participants in PY 1988 who left the programs were placed in jobs. Another 32 percent in PY 1989 and 34 percent in PY 1988 were classified as "additional positive terminations," indicating that they returned to school, entered another training program, or followed another positive route other than immediate job placement after receiving JTPA services. Table 5 presents selected characteristics of the participants and the services they received in the two program years.

During the *Report* period, the Department continued to promote the provision of literacy instruction to Native American participants and encouraged grantees to coordinate their activities with those of other human resource service providers.

Table 5. Native American Programs Selected Participant Characteristics and Program Activities (Percent Distribution)

Item	PY 1989	PY 1988
Male	50%	50%
Female	50	50
21 years or younger	28	28
High school dropout	23	25
Program Activity:		
Classroom training	30	31
Support services	33	30
Work experience	22	23
Community service employment	6	7
On-the-job training	9	9

Source: U.S. Department of Labor, Employment and Training Administration.

In addition to programs authorized under JTPA Title IV-A, Native American grantees also received JTPA Title II-B funds to operate summer programs for Native American youth. Approximately 13,000 Native American youth participated in such programs each summer, at a cost of $12.9 million in 1990 and $13.6 million in 1989.

Native American grantees were required to meet three performance standards: (1) an entered employment rate; (2) a positive termination rate; and (3) a cost per positive termination. Program Years 1988 and 1989 represent the second and third years in which statistical adjustment models were used to set the numerical standards. This approach was implemented to establish a uniform and objective basis by which the standards for each grantee could be adjusted to reflect results in relation to the characteristics of each program's terminees and local conditions. Beginning in PY 1989, the "pure" model approach went into effect. In the two prior years, credit for past performance was provided in conjunction with the model-derived performance standards to provide the grantees with standards that represented a gradual transition into using only the pure model approach.

Migrant and Seasonal Farmworker Programs. These programs help combat chronic unemployment, underemployment, and substandard living conditions among mi-

[5] Title IV also authorizes services for veterans. These programs are targeted to veterans with service-connected disabilities, veterans of the Vietnam era, and veterans recently separated from military service. They are administered by the Department of Labor's Office of the Assistant Secretary for Veterans' Employment and Training and are reviewed in the Secretary's annual report on veterans' activities.

grant and seasonal farmworkers and their families nationwide. They are designed to help farmworkers who seek alternative job opportunities secure stable employment at an income above the poverty level and to improve the living standard of those who remain in the agricultural labor force.

Through grants to public and private nonprofit institutions, economically disadvantaged farmworker families are provided with training and other employment-related services, including classroom instruction, on-the-job training, work experience, and supportive services. The latter may include day care, health care, legal aid, transportation assistance, and food and housing in emergency situations.

Regular farmworker programs served some 55,000 persons in PY 1989 and 54,500 in PY 1988 through 53 projects in 48 States and Puerto Rico. Program expenditures were $66.3 million in PY 1989 and $63.8 million in PY 1988. In both years, just over half the terminees received supportive services, such as child care, medical care, or emergency housing. In PY 1989, 13,400 persons received job skills training which led to placement in successful unsubsidized employment. In PY 1988, the number was 13,500. The balance of the participants received job search assistance or left the program after receiving minimal services. Classroom and on-the-job training continued to be the main instructional strategies leading to employment used by farmworker grantees. Table 6 presents selected terminee characteristics over the two-year period.

In PY 1989, a new initiative was begun to place some participants in upgraded agricultural jobs. Grantees were requested to make 10 percent of their placements in agricultural or agricultural-related jobs which offered higher salaries and unsubsidized, full-time employment. At the end of the period, about 11 percent of job placements were in such occupations.

In PY 1988, the Department responded to emergency conditions created by a drought throughout most of the agricultural regions of the United States. Poor crop yields eliminated the usual work opportunities for farmworkers. Pursuant to the Drought Assistance Act of 1988, the Federal Emergency Management Agency transferred $5 million to the Department to aid farmworkers who lost work or were unable to work due to the drought. Grantees in 33 States used these additional funds to provide such supportive services as transportation, nutritional assistance, and shelter. Virtually all of the funds were expended by the end of the program year. Approximately 18,900 farmworkers and their dependents received services.

Program Years 1988 and 1989 represent the second and third years in which farmworker grantee outcomes were measured against performance standards. The two required measures for farmworker programs were an entered employment rate and a cost per entered employment. In PY 1988 the programs used past performance in conjunction with an adjustable performance model for each standard. Because of the consistent performance outcomes experienced by farmworker grantees during the period, the "pure" performance standards model was used in PY 1989.

Table 6. Selected Migrant and Seasonal Farmworker Programs Participant Data

Item	PY 1989	PY 1988
Terminees	46,000	45,000
Women	35%	36%
Age 21 or under	19%	21%
Pre-program average income	$3,660	$3,522
Average annualized wage of terminees placed in jobs	$10,400	$9,800

Source: U.S. Department of Labor, Employment and Training Administration.

Job Corps is a Federally administered residential national education and training program for severely disadvantaged youth 16 through 21 years of age. Enrollees are provided food, housing, education, vocational training, medical care, counseling, recreation facilities, and other support services. The program prepares youth for stable, productive employment and entrance into vocational/technical schools, junior colleges, military service, or other institutions for further education and training.

Enrollees in Job Corps centers also receive books, supplies, and a cash living allowance, part of which is paid upon program termination after satisfactory participation. A few of the centers can accommodate nonresidential enrollees who participate in training and center activities during the day. Enrollees may stay in Job Corps for up to two years, although the average length of stay is about eight months. They are given help in finding a job or enrolling in further education when they leave.

Vocational training is offered in occupations such as auto repair, carpentry, painting, masonry, nursing and other health care jobs, word processing, food service, business and clerical skills, welding, and heavy equipment operation. The education program includes reading, mathematics, and preparation for the General Education Development (GED) high school equivalency examina-

Job Corps Celebrates 25th Anniversary

In 1989, Job Corps celebrated 25 years of service to the Nation's economically disadvantaged youth. Established by Congress in 1964 as part of the Economic Opportunity Act, the Job Corps is now Title IV-B of JTPA. Since Job Corps was founded, more than two million American youth have participated in the program.

Job Corps' placement rate in PY 1989 was 83.5 percent, with 66.7 percent of former enrollees available for placement being placed into gainful, unsubsidized employment, and 16.8 percent going on to further education or advanced training. This is a particularly noteworthy achievement because the average Job Corps enrollee is an economically disadvantaged 18-year-old high school dropout who is a member of a minority group, reads at or below the sixth-grade level, and comes from a family receiving public assistance and/or having an average annual income of $5,355 (in PY 1989).

A number of 25th anniversary events were held across the country in 1989, culminating in a festival in Washington, D.C. The festival featured exhibits on Job Corps' basic educational, vocational, and residential programs, as well as performances displaying corpsmembers' rich and diverse cultural heritage and their artistic and musical talents.

tion. Job Corps enrollees also receive instruction in personal hygiene, nutrition, developing positive work habits, and making constructive use of leisure time.

Job Corps centers range in capacity from 175 to 2,600 enrollees. Some Job Corps centers, called civilian conservation centers, are operated by the Departments of Interior and Agriculture and staffed by Federal employees. The remaining centers are operated under contract with the Department of Labor, primarily by major corporations such as ITT, Career Systems, Inc., Teledyne, and the Management Training Corporation, with a fewer number operated by various nonprofit organizations.

In both program years, 107 Labor Department-funded Job Corps centers were in operation. In PY 1989, they served nearly 101,000 enrollees, including over 62,000 newly enrolled trainees, with expenditures at $725.8 million. In PY 1988, almost 106,000 enrollees were served, including 68,000 new trainees. Expenditures totaled $705.4 million. Table 7 presents enrollee characteristics and outcomes over the two-year period.

As part of a series of pilot projects referred to as "Job Corps II," two centers serving only nonresidential corpsmembers were opened by PY 1988. The centers began undergoing a formal evaluation to determine whether there are youth who, for various reasons such as family responsibilities, cannot leave home but can benefit from the Job Corps program, and whether an effective program can be offered in an urban, nonresidential setting.

Another Job Corps II initiative—the pilot extended training day program—was expanded in 1988 to include a third Job Corps center that offered students who have family responsibilities or who must work during the daytime an opportunity to participate in Job Corps in the evening. After the initial year of operation, the program design was modified to provide additional support intended to improve students' overall attendance and retention and completion rates. The projects were funded through PY 1989 to allow for assessment of the impact of the design changes.

In both program years, continued emphasis was placed on enhancing services to students by establishing linkages with other Federal, State, and local programs. The number of centers with such linkages for child care for nonresidential students was increased as a result of the effort. Known as "Shelter Corps," a new program was implemented in PY 1988 with the Human Resources Administration (HRA) of New York City to enroll homeless youth in Job Corps on a shared cost basis. In PY 1989, Job Corps initiated "Foster Corps," a second linkage project with HRA to enroll foster care youth.

In PY 1989, educational initiatives included development and pilot testing of new and revised curricula for parenting, intergroup relations, social skills, training, drug education, and a computer-managed instruction system. In PY 1988, educational initiatives included a new competency-based graded reading program, a program for students with special learning needs, and an alternative reading program designed specifically for Job Corps.

Vocational initiatives in PY 1989 included developing and implementing 17 curricula, consisting of Training Achievement Records, which comprise a list of tasks students need to accomplish to be employed in an occupation, and Student Activity Guides, which provide information, steps, and evaluation criteria for the performance of the tasks. Industry Advisory Groups, made up of employers and instructors, were used to confirm the tasks and select training materials. In PY 1988, 15 curricula for vocational education clusters were developed. In addition, a new "World of Work and Occupational Exploration" curriculum was developed and pilot tested.

Table 7. Job Corps Enrollee Characteristics and Outcomes

Characteristics and Outcomes	PY 1989	PY 1988
Trainee Characteristics:		
Dropout	84%	83%
Average reading level at enrollment	Grade 7	Grade 6
Minority	70%	70%
Male	67%	67%
Terminees Available for Placement:		
Placed in a job	66.7%	66.5%
Continued other education/training	16.8%	16.4%
Breakdown by Sex:		
Male:		
Placed in civilian jobs	68%	69%
Average hourly wage	$4.80	$4.66
Continued other education/training	15.1%	14.7%
Entered the military	2.2%	2.2%
Female:		
Placed in civilian jobs	59%	58%
Average hourly wage	$4.43	$4.30
Continued other education/training	20.3%	20.2%
Entered the military	0.5%	0.7%

Source: U.S. Department of Labor, Employment and Training Administration.

Other major Job Corps initiatives during the two-year period included the publication of a *Training Resources Catalogue* of all Job Corps vocational and academic curricula and a *Job Corps Policy and Requirements Handbook* in PY 1989. In PY 1988, a two-year pilot project was initiated to verify Job Corps student occupational competencies with the National Occupational Competency Testing Institute. The pilot project was designed to determine the compatibility of Job Corps vocational curricula and NOCTI tests and to study the feasibility of using such tests to validate the vocational achievements of students in Job Corps.

The Substance Intervention Program, begun in PY 1987, continued to be piloted in 20 centers. An evaluation of the pilot showed that on-site screening is essential to the early identification and treatment or referral of students with serious substance problems. It also heightens staff awareness of substance abuse problems and gives them confidence to appropriately diagnose students.

Six performance standards are used to measure the outcomes of Job Corps programs. Two of the standards measure learning gains in reading and math, based on pre- and post-test scores of the Test of Adult Basic Education (TABE), one measures placement for terminees, two measure program retention, and another measures GED attainment. During the *Report* period, work continued on the development of a vocational program completion standard and a placement standard for placement agencies.

Pilot and Demonstration (P&D) Programs provide job training, employment opportunities, and related services for individuals with specific disadvantages. The P&D programs address industry-wide skill shortages and offer technical expertise to particular client groups. They include offenders, individuals with limited English language proficiency, handicapped persons, women, single parents, displaced homemakers, youth, older workers, those who lack educational credentials, public assistance recipients, and others who the Secretary of Labor determines need special assistance. P&D programs also develop information networks among organizations with similar JTPA-related objectives.

The programs, funded under Department contracts and grants, are administered at the national level and operated at State and local levels to test innovative approaches and strategies for enhancing the employability skills of persons facing particular labor force barriers. Many projects have the potential for national replication. Over $30 million in PY 1989 and $39 million in PY 1988 were committed to these efforts.

P&D activities include coordination models, partnership programs, training demonstration programs, programs for the disabled, and other Departmental initiatives.

Coordination Models. During the 1988 program year, 23 projects were implemented to seek comprehensive, effective approaches for addressing the needs of selected target groups, such as youth offenders, displaced homemakers, and workers lacking basic workplace skills.

Eighteen of these were funded in PY 1989 for a second year to allow for further testing and refinement of promising approaches. The major focus of these efforts was on improving State and local coordination in the development and implementation of comprehensive programs to meet the multifaceted needs of the target groups. The objectives of the projects were to detail the major problems involved in developing operational linkages among agencies, to provide viable solutions for overcoming barriers to interagency coordination with JTPA programs, and to identify effective planning and implementation approaches for demonstrating potentially successful coordination models.

Partnership Programs. These programs are designed to increase the involvement in JTPA of key national business, labor, and community-based organizations. Representing broad constituencies, JTPA partners can promote training and cooperation with JTPA within their own organizations and with the private sector and local government. In PY 1989, the National Council of La Raza was added to the six organizations that have been funded in this category for a number of years. They are: (1) the National Urban League, Inc.; (2) SER—Jobs for Progress, Inc.; (3) Opportunities Industrialization Centers of America, Inc.; (4) National Alliance of Business; (5) 70001 Ltd. (now called WAVE); and (6) Human Resources Development Institute, AFL-CIO.

Training Demonstration Programs. The Department funded eight projects to address industry-wide skill shortages under this category. These programs provided skills training in each program year for almost 8,000 individuals, including women, minorities, youth, persons with limited English-speaking proficiency, and public assistance recipients. The National Tooling and Machining Association, the International Union of Operating Engineers, and PREP, Inc., were among the major employer associations, labor organizations, and other groups to receive training demonstration funds in the *Report* period.

Programs for the Disabled. P&D programs served a total of more than 13,000 disabled people in Program Years 1988 and 1989. These programs are designed to increase the number and quality of job opportunities for disabled persons by providing training and employment opportunities that allow them to compete equitably in both the private and public sectors.

Projects for the disabled emphasize that each participant is unique and has a special combination of abilities apart from the disability. Projects must provide equal pay for equal productivity and job placement at the highest skill level commensurate with qualifications.

The programs placed more than 9,000 participants in jobs during the *Report* period. They were operated by seven national organizations with expertise in working with the disabled, including such groups as Goodwill Industries of America, Inc., and the Association for Retarded Citizens.

Other Initiatives. The Department funded a number of other P&D projects targeted to groups at risk of failure in the labor market during PY 1988 and PY 1989. In addition to the Youth Opportunities Unlimited grants and the work-based learning and school-to-work demonstration projects discussed earlier in this chapter, the projects included High School Redirection, the Federal Bonding Program, Cities in Schools, New Chance, and the Academy on Families and Children At-Risk.

High School Redirection is a successful alternative high school in Brooklyn, N.Y., that enrolls youth who have had chronic truancy or other problems in regular high schools. Among its core features is the STAR program, an intensive reading program in which students stay with the same teacher for five periods every day to concentrate on reading development. During PY 1988, the Labor Department awarded $2.8 million in grants to seven cities to continue to replicate the model through local school systems and JTPA. The seven sites were Cincinnati; Denver; Detroit; Los Angeles; Newark; Stockton, Calif.; and Wichita, Kan.

The Federal Bonding Program was established in 1966 and is operated through local Employment Service offices. It provides bonds for up to one year to ex-offenders who require a bond to be hired for work. An initial certification for bonding provides coverage for six months. At the end of that time, if the bondee is still on the job, the bond may be renewed for an additional six months. After that, the employer may purchase bond coverage through the insurance company responsible for the Federal Bonding Program.

During PY 1988, the program certified 943 applications for bonding and processed 59 renewals. In PY 1989,

878 individuals received certification, 45 renewals were processed, and efforts were made to broaden dissemination of information and thus increase utilization of the program.

In cooperation with other Federal agencies and nonprofit groups, the Department supported several projects targeted to youth and families. The Cities in Schools program, operated under an interagency grant funded by the U.S. Departments of Justice, Labor, and Health and Human Services, develops State and local public/private partnerships that establish educational and social programs to provide comprehensive services to youth at risk of involvement in delinquency and illegal drug use. The aim of the program is to prevent these youth from dropping out of school and to provide alternative educational services to deal with illiteracy and academic underachievement. At the end of PY 1989, there were 28 cities with operational programs at 141 educational sites serving approximately 11,000 students.

The New Chance demonstration is aimed at increasing the long-term employability of young women who have been teenage mothers. The focus of New Chance is on the integration of services, which include: (1) educational development through instruction in basic academic skills and GED preparation; (2) employability development through enhancement of career exploration and preemployment skills, vocational skills training, work internships and summer work experience, and job placement assistance; (3) personal and social development; and (4) services for participants' children.

New Chance was designed to operate initially in 17 sites in 10 States, with at least 100 young mothers participating at each site. The project began in PY 1988 and includes a two- and four-year followup of participants. Funding is through a consortium of public and private sponsors, including the Department of Labor.

The Department was the primary funder of the Academy on Families and Children At-Risk, an 18-month project begun in PY 1989 and conducted by the Council of Governors' Policy Advisers to develop in 10 States integrated, statewide strategies for improving family well-being. The States were Arkansas, Colorado, Illinois, Iowa, Maryland, New York, North Dakota, Oregon, Texas, and Washington.

The "academy" process involves the participation of teams of high-level policy officials representing Governors and human service agencies, including JTPA agencies. In this case, team members were provided a structured combination of seminars and on-site technical assistance to help them design policies that would guide their States' efforts to increase self-sufficiency for disadvantaged families and their individual members. The Academy also received funding from the Department of Health and Human Services and several private foundations.

JOB TRAINING FOR THE HOMELESS DEMONSTRATION PROGRAM

The Stewart B. McKinney Homeless Assistance Act of 1987 (P.L. 100-77) represents a comprehensive response to the multifaceted needs of homeless people in the United States. It includes provisions for emergency shelter, physical and mental health care, food, education, housing, job training, and other community services.[6]

The Act deals directly with employment issues related to the homeless by authorizing the Job Training for the Homeless Demonstration Program, which is administered by the Department.[7] Under the program, the Secretary of Labor awards grants to public and private agencies to demonstrate innovative and replicable approaches to providing job training to the homeless population.

The purpose of the demonstration, which began operating in October 1988, is to provide information and direction for the development of a national job training policy for homeless persons. The program also seeks to gain information about how to provide effective employment and training services for homeless individuals and to learn how effective systems of coordination can be developed to address the multiple needs of the homeless.

Authorized activities for grant recipients include remedial education, job search, job training, basic skills instruction, supportive services (e.g., transportation, housing, and child care), outreach, and coordination with related community programs.

The two fiscal years covered by this *Report* marked the first two years in which the demonstration was operational. During this period, 62 grantees operated projects under the new demonstration, with funding totaling over $23 million.

The individual projects served diverse subgroups within the homeless population, including the chronically mentally ill, substance abusers, families with children, single men, single women, youth, and Native Americans.

As of September 30, 1990, following two years of operations, the projects had provided services for approximately 17,700 participants. Of these, 10,800 were enrolled in job training, and 5,400 of these had been placed in unsubsidized jobs. Approximately 40 percent of those placed in jobs were still employed after 13 weeks.

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[6] Federal agencies responsible for administering programs authorized by the McKinney Act are the Departments of Housing and Urban Development, Health and Human Services, Veterans' Affairs, Education, and Labor, and the Federal Emergency Management Agency.

[7] The McKinney Act also adds homeless persons to the definition of those eligible for JTPA services and alters the proof of residency requirement to facilitate their participation.

Grantees were in 25 States and the District of Columbia. Projects were run by a variety of agencies, such as JTPA Service Delivery Areas, community action agencies, a community college, and a public school system.

Some findings of the early experience of the homeless demonstration show that:

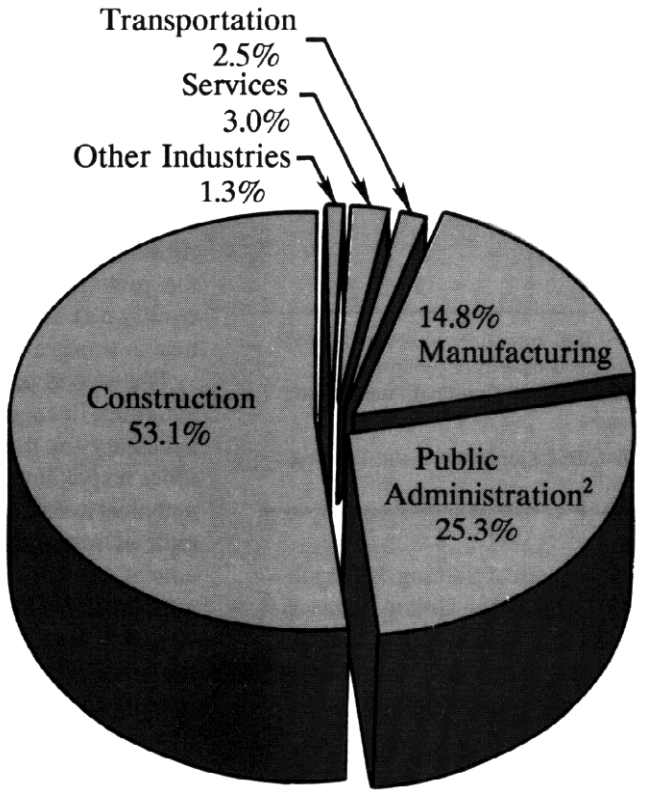
- Project operators should carefully assess participants at the very beginning to determine who can benefit most from job training services and which services they need.
- Operators should consider using the case management approach to arrange for needed services and help clients stay on track. Many clients have histories of substance abuse and need counseling and treatment to benefit from job training.
- Regardless of success in helping clients find and keep jobs, many need additional assistance if they are to find and afford permanent housing.

APPRENTICESHIP

In each of the two fiscal years covered by this *Report*, over 350,000 civilian apprentices were trained in more than 44,000 registered apprenticeship programs. Although most people in the skilled trades and crafts acquire their training through a variety of informal means, apprenticeship has long been recognized as a particularly effective means of formal training for many of these skilled occupations.

While there has been a growing recognition by many in the training field that apprenticeship embodies concepts which could have wide and beneficial application across many industries and occupations, the system has not been widely adopted outside of a few industries where it has a long tradition (see Chart 2 and Table 8). Moreover, the full potential of the apprenticeship concept—the linking

Chart 2. Distribution of Registered Apprentices by Industry[1], Fiscal Year 1990



[1] Does not include data for California, Delaware, District of Columbia, North Carolina, Puerto Rico, Hawaii, and the Virgin Islands.
[2] Includes apprentices in the military.
Source: U.S. Department of Labor, Employment and Training Administration.

Table 8. Registered Apprentices Distribution by Occupation[a] FY 1990

Occupation	Percent Distribution
Total	100%
Electricians	17.7
Carpenters	11.0
Plumbers	5.2
Pipe Fitters	4.7
Sheet Metal Workers	4.5
Machinists	2.6
Tool and Die Makers	2.2
Roofers	2.2
Fire Fighters	2.1
Bricklayers	2.0
Cooks	2.0
Structural Steelworkers	1.8
Painters	1.8
Operating Engineers	1.5
Correction Officers	1.5
Maintenance Engineers	1.4
Electronic Mechanics	1.3
Automobile Mechanics	1.2
Other, Not Elsewhere Classified	33.3

[a] Occupations with at least 3,000 apprentices in training at the end of FY 1990. Does not include data from California, Delaware, District of Columbia, North Carolina, Puerto Rico, Hawaii, and the Virgin Islands.

Source: U.S. Department of Labor, Employment and Training Administration.

of education with a formal system of training on the job—has never been entirely realized in the United States as it has been in other countries. In some European countries, for example, apprenticeship is not only the preferred method of training for many technical and commercial occupations, but it is a primary vehicle for the school-to-work transition of noncollege-bound youth.

Recently, the increasing concern over the competitiveness of the United States and the awareness of the importance of highly skilled workers have led to a renewed interest in the potential for new, expanded, and innovative applications of the apprenticeship system. Recognition that there needs to be a more effective system for assisting youth to make the transition from school to work has also heightened interest in apprenticeship as a possible bridge between school and work. (See the discussion of school-to-work demonstration projects earlier in this chapter.) Department activities in Fiscal Years 1989 and 1990 reflect this mood.

Apprenticeship 2000

During Fiscal Years 1989 and 1990, the Department continued a concerted and major effort to improve and expand the apprenticeship concept as well as the apprenticeship program. The foundation for these activities was a comprehensive and systematic examination of all aspects of the apprenticeship concept undertaken under the general rubric of "Apprenticeship 2000." This initiative, launched in 1988, became the basis for an extensive process of soliciting views through public hearings, conferences, and publication of papers for comment in the *Federal Register*; a wide-ranging program of research and demonstration projects; and consultations with business and labor as well as foreign nations with extensive experience in apprenticeship. Some of the major activities undertaken under Apprenticeship 2000 are described in the following sections.

Focus Papers. The Department published two focus papers in the *Federal Register* in late 1988 and early 1989, soliciting comments from the public. The first paper addressed issues related to expansion of the apprenticeship concept and quality assurance. Most of the respondents endorsed expanding the apprenticeship concept and the principle of adopting various measures to assure quality was widely supported. However, opinion on how best to achieve the goals differed greatly.

The second paper addressed issues related to support activities, linkages, and changes in the Federal/State roles necessary for the expansion of apprenticeship. Among those responding, there was strong support for increased technical assistance and promotional activities. The principle of linkage was generally supported, with vocational education and the overall education system mentioned most often as the areas in which improved coordination should be sought. Finally, respondents indicated support for establishing a minimum level of effort State apprenticeship agencies must devote to apprenticeship activities as a condition for Federal recognition.

Policy Report on Work-Based Learning. *Work-Based Learning: Training America's Workers*, a policy report based on the findings and recommendations of the Apprenticeship 2000 initiative and published in November 1989, was the culmination of the effort to examine all facets of the apprenticeship system and concept. It details how the apprenticeship concept of work-based learning

might be used to enhance the skills of the current work force and to assist youth in their transition from school to a meaningful career path, and it includes a number of far-reaching recommendations that go beyond the existing apprenticeship system to address the broader issue of general work-based learning.

International Symposium on Innovations in Apprenticeship and Training. The Department cosponsored with the Organization for Economic Cooperation and Development an international symposium on apprenticeship and training in Paris in November 1988. The symposium program covered all aspects of apprenticeship training, with representatives of the 10 participating countries sharing experiences and insights.

Short-Term Apprenticeship Research. A publication that briefly describes the findings of research efforts was released. Issues covered in *Executive Summaries of Apprenticeship 2000 Short-Term Research Projects* included: expansion of apprenticeship to new industries and occupations; issues and barriers relating to women in apprenticeship; financial and nonfinancial incentives for apprenticeship programs; linkage of vocational education with apprenticeship; EEO apprenticeship regulations; State roles and responsibilities in apprenticeship; and teaching and learning on the job.

Research and Demonstration Projects. A number of research and demonstration projects in support of Apprenticeship 2000 were initiated in FY 1989 under five headings:

- Alternative Delivery Systems—Projects to develop ways for small business to undertake training patterned on the apprenticeship model;
- Broadened Apprenticeship Concept—Projects to develop and test model approaches to expanding the apprenticeship model to new occupational areas;
- Expansion of the Apprenticeship Concept to Additional Industries—Projects to develop approaches to expanding the apprenticeship concept to industries where it has not been used;
- Promotion of Linkages—Projects to evaluate successful examples of linkages between apprenticeship and related programs, to identify issues and barriers to linkages, and to develop model programs; and
- National Registration and Automated Process for Determining Apprenticeable Occupations—Projects to study the feasibility of using technology to provide a national on-line apprenticeship registration system, to provide a system for identifying apprenticeable occupations, and to improve the current apprenticeship data system.

Other Program Activities

In recent years, the military services have been major users of apprenticeship, not only to enhance the skills of their members at their military jobs, but also to prepare them for eventual transition to civilian jobs. During FY 1989 the Department worked with the U.S. Army to establish an interagency apprenticeship group to explore ways to provide additional assistance to apprentices while on active duty and when they leave the service. Under the aegis of a joint meeting called "Partnerships in Productivity," DOL and the Army explored a wide range of topics including credentialing, national standards for service programs, and training materials. Approximately 40,000 military apprentices were in training at the end of the year in both FY 1989 and FY 1990.

A key function of the administration of the national apprenticeship system over the past several decades has been the promotion of equal opportunity in apprenticeship through technical assistance and compliance reviews. In FY 1990, Federal staff conducted 1,600 equal employment opportunity compliance reviews and 1,680 in FY 1989. To insure the quality of apprenticeship programs, Federal staff also conducted 1,857 on-site quality reviews in FY 1990 and 1,988 in FY 1989.

Finally, the Federal Committee on Apprenticeship was rechartered and reconstituted as part of the Department's efforts to expand apprenticeship and met in September 1990 to review the range of issues involved in the expansion effort. (Table 9 provides statistics of apprenticeship program operations in the *Report* period.)

The Federal role in apprenticeship is largely supportive, providing an organizational framework to: (1) formulate and promote the furtherance of labor standards; (2) register programs and apprentices that meet standards; and (3) deliver promotional services and technical assistance. The private sector (business and labor) bears the cost of providing the actual training and has a primary role in the program including the design and administration of the training and the selection of apprentices. About 20 percent of the apprenticeship training programs that were in existence during the *Report* period operated under the direction of Joint Apprenticeship Committees composed of business and labor representatives. The other programs were operated by employers or employer associations without union participation.[8]

[8] The National Apprenticeship Act of 1937 (P.L. 75-308), also known as the Fitzgerald Act, established the pattern for today's system of Federal Government assistance to apprenticeship programs. Under the Act, the Bureau of Apprenticeship and Training, a component of ETA's Office of Work-Based Learning, is responsible for setting minimum quality standards of training for the Secretary. Federal funds are not used in the training of apprentices; program sponsors (employers or groups of employers and unions) arrange for, oversee, and finance the training.

Table 9. Selected Apprenticeship Program Data

Apprenticeship Data Elements	FY 1990	FY 1989
Apprentices Receiving Training-Total[a]	361,000	350,000
Percent Minority	22.5	21.6
Percent Female	7.1	7.2
Number of Civilian Apprenticeship Programs	44,000	44,400
Military Apprentices[b]	41,500	39,700
Percent Minority	35.8	35.6
Percent Female	6.5	6.1
Number of Reviews Conducted:		
EEO Compliance Reviews	1,600	1,680
On-Site Quality Reviews	1,857	1,988
Apprenticeship Actions:		
New Registrations	98,200	96,900
Completions	39,400	43,400

[a] Includes new registrations, cancellations, and completions. Excludes military apprentices.

[b] Data for apprentices on-board at end of year.

Source: U.S. Department of Labor, Employment and Training Administration.

SENIOR COMMUNITY SERVICE EMPLOYMENT PROGRAM

The Senior Community Service Employment Program (SCSEP), authorized by the Older Americans Act of 1965, as amended,[9] helps to create part-time community service jobs for low-income people 55 years of age or older. The jobs are frequently directly related to serving senior citizens, and are often in areas such as day care (both child and adult), recreation, health care and nutrition, literacy training, programs for the disabled and elderly, and conservation and restoration. Participants can receive a variety of services which may include annual physical examinations, personal and job-related counseling, job training, and placement into unsubsidized jobs. They are paid the Federal or State minimum wage—whichever is higher.

During Program Years 1988 and 1989, funds for operating individual SCSEP programs were provided to the U.S. Forest Service (Department of Agriculture), to nine national nonprofit organizations,[10] and to State and territorial governments. To the extent possible, SCSEP sponsors coordinate their activities with other programs and agencies which provide training, related services, and job opportunities, including JTPA Service Delivery Areas, Job Corps centers, local Employment Service offices, area agencies on aging, Private Industry Councils, and community colleges.

For PY 1989, SCSEP allocations totaled $343,824,000, of which $75,641,000 was allocated to States and $268,183,000 to national sponsors. For PY 1988, allocations for SCSEP totaled $331,260,000, of which,

[9] P.L. 102–375, Older Americans Amendment Act of 1992.

[10] These organizations were: Asociacion Nacional Pro Personas Mayores; National Caucus and Center on Black Aged, Inc.; National Council on Aging; American Association of Retired Persons; National Council of Senior Citizens; National Urban League, Inc.; Green Thumb, Inc.; National Pacific/Asian Resource Center on Aging; and National Indian Council on Aging. The latter two organizations were new grantees, receiving project funds for the first time in PY 1988.

Table 10. Senior Community Service Employment Program Selected Participant Characteristics

Characteristic	PY 1989	PY 1988
Sex:		
Male	29.2	29.7
Female	70.8	70.3
Age:		
55-59 years	17.4	18.5
60-64 years	26.1	27.3
65-69 years	26.7	26.4
70-74 years	17.3	16.3
75 years and over	12.5	11.5
Ethnic group:		
White	62.4	63.3
Black	23.9	23.3
Hispanic	9.0	8.8
Indian/Alaskan	1.7	1.6
Asian/Pacific Islander	3.0	3.1
Veteran	13.4	13.1
Education:		
8th grade and under	26.3	27.4
9th-11th grades	21.6	21.4
High school	34.8	34.2
1-3 years of college	12.4	12.3
4 years of college	4.8	4.7
Family income below the poverty level	80.9	79.9

Note: Percentages may not add to 100 due to rounding.

Source: U.S. Department of Labor, Employment and Training Administration.

$72,877,000 was allocated to States and $258,383,000 was allocated to national sponsors (including the U.S. Forest Service).

In both Program Years 1988 and 1989, SCSEP provided part-time subsidized jobs for over 100,000 individuals. These persons were at least 55 years of age with an income no greater than 125 percent of the poverty level. (Table 10 shows characteristics of SCSEP participants for the two program years.) Over one-fifth of the participants were placed in unsubsidized employment, many with the same agency for which they had worked when they were SCSEP enrollees.

During both program years, the Department continued to emphasize several special SCSEP initiatives. It encouraged SCSEP sponsors to improve their geographical distribution of program resources, so that the opportunity of eligible persons to participate in the program is not affected by their place of residence. The Department also worked to enhance the coordination of SCSEP activities with JTPA and other appropriate programs and agencies.

EMPLOYMENT SERVICE

Over 18 million people registered with local offices of the public employment service (ES) in both PY 1988 and PY 1989 and received a wide variety of employment-related services. The public employment service is a joint effort of the Department of Labor and of 54 affiliated State Employment Security Agencies (SESAs) and their network of over 1,700 local offices. It is authorized by the Wagner-Peyser Act (29 U.S.C. Section 49 *et seq.*), and its basic labor exchange function is financed through grants from the Department to the 54 SESAs.

In addition to job referral and placement, local ES offices may offer jobseekers and employers a wide range of services and assistance—including testing, counseling, workshops in job search techniques, instruction in resume writing, interviewing techniques, job fairs, labor market information, mass screening, job analysis for restructuring jobs, outplacement assistance, and specialized recruitment to meet affirmative action plans.

In PY 1988, seven State-operated demonstration projects began testing innovative and exemplary practices to meet anticipated labor market requirements. These projects explored various ways in which the nationwide ES system can be improved to provide better services to jobseekers and employers and to increase private sector employer involvement in ES activities. For example, Maryland developed new strategies to increase private sector involvement in employment service planning, to strengthen the relationship between the ES and JTPA systems, and to promote flexible, local decision-making based on specific local labor market conditions.

During Program Years 1988 and 1989, Employment Service Information Exchange Forums were held in Florida, Texas, and California. These forums provided a means for human resource professionals to share experiences and successes in finding ways to address the emerging needs of the Nation's labor markets. As part of the planning process, the States submitted 142 innovative models, 60 of which were presented at the forums. Speakers discussed the future and possible roles to be played by ES agencies. A video of the forums and a monograph of highlights were developed and distributed to the States. Selected forum speeches were collected and published under the title *Innovation in the Nation's Employment Service.*

During PY 1989, an advisory panel was established to oversee a study of the *Dictionary of Occupational Titles (DOT)*, which classifies jobs by types of skills required, and to expand its use by business, education, and training institutions. The objectives of the study are to evaluate the purpose and focus of the *DOT*, to evaluate the scope of coverage and level of detail users need, to assess methods of occupational analysis, and to examine new methods of production and dissemination of *DOT* information.

Labor Exchange Activities

The 18 million-plus jobseekers who sought services at local ES offices in PY 1988 and PY 1989 were interviewed and—based on experience, education, training, and aptitude—assigned one or more occupational codes to facilitate matching their job skills with employers' job orders.

Local ES offices referred over seven million jobseekers to interviews with employers who had listed job openings with the ES in each of the program years. Over 3.1 million persons (more than 40 percent of those referred to employers) were placed in jobs in both years. ES offices also referred well over a quarter of a million individuals to training and provided about 600,000 with employment-related counseling during each year. (Table 11 presents data on ES participants and program services.)

Employers who have job vacancies may list job orders with a local ES office, usually by telephone. Job orders, like jobseekers, are assigned occupational codes and generally are listed with local and statewide job banks. Orders may also be placed in an automated nationwide job bank—the Interstate Job Bank (IJB)—established to list job openings which are not readily filled locally.

During the *Report* period, SESAs increased the use of the IJB to publicize hard-to-fill job opportunities and to help people find jobs in other States. In PY 1989, more than 159,400 openings were listed, a 30 percent increase over the previous year. In PY 1988, nearly 122,400 job openings were listed through the system, also a 30 percent increase over the previous year. About 36 percent of the listings for both years were in professional and managerial occupations. Microfiche listings of interstate orders were mailed by the IJB each week to ES local offices in 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands and to some 260 libraries and universities.

More States became capable of communicating electronically with the IJB. By the end of PY 1989, 27 States were transmitting data via magnetic tape and 16 via data communications. Twenty-six States had incorporated the data into their on-line systems, and six made the order data available for direct applicant access in their on-line systems.

During the *Report* period, the Multistate Job Bank Project provided for the sharing of information on job openings among the SESAs in Virginia, Maryland, West Virginia, Delaware, Pennsylvania, and the District of Columbia to facilitate regional job placement activities. The States experimented in selected locations with the use of the Automated Labor Exchange (ALEX), an appli-

Table 11. Employment Service: Selected Participant Characteristics and Progam Data

Item	PY 1989	PY 1988
Total Applicants	18,414,985	18,085,692
Female	43.6%	44.0%
Economically Disadvantaged	16.6%	17.9%
Job Openings Received	6,997,847	7,239,823
Major Services Provided:		
Counseling	600,058	573,261
Referred to Training	279,651	291,246
Referred to Jobs	7,679,948	7,446,322
Placement in Jobs:		
Individuals	3,123,579	3,224,961
Transactions[a]	4,284,389	4,454,262
Expenditures	$740.0 million	$733.9 million

[a] Includes multiple placement of individuals.

Source: U.S. Department of Labor, Employment and Training Administration.

cant self-search system which allows a jobseeker to search through an automated job order file using occupational criteria. In later phases of the project, an employer search of the applicant file and a self-application process will be developed.

During PY 1988 and PY 1989, the Department continued funding the Employers National Job Service Committee (ENJSC), a volunteer organization of employers, to inform other employers about the processes for hiring and training special groups of workers, including the disadvantaged, at-risk youth, veterans, and disabled persons. Special efforts were undertaken through ENJSC to improve coordination with the Private Industry Councils under JTPA.

Reimbursable Grant Activities

In addition to its labor exchange function, the public employment service responds to numerous Federal and State mandates. These responsibilities, financed directly with Federal and State funds, include certifying the need for alien workers, providing vouchers to jobseekers in connection with the Targeted Jobs Tax Credit (TJTC) program and certifying employer eligibility for the TJTC, recruiting domestic migrant and seasonal farmworkers and monitoring their housing, and certifying individual eligibility for such programs as Federal guaranteed loans, student loans, and work programs. Program data for alien certification and the TJTC program, the two most time-consuming reimbursable grant activities, are provided below.

Alien Labor Certification

The alien labor certification process is designed to assure that the admission of aliens for employment purposes will not adversely affect the job opportunities, wages, and working conditions of U.S. workers. The labor certification program is authorized by the Immigration and Nationality Act of 1952 (P.L. 82-414), as amended by P.L. 89-236, P.L. 94-484, P.L. 94-571, and the 1986 Immigration Reform and Control Act (IRCA—P.L. 99-603). It is administered jointly by the Department of Labor and the State Employment Security Agencies.

In FY 1990, the Department of Labor approved 47,887 applications from employers to allow foreign workers to fill permanent nonagricultural jobs. In FY 1989, such approvals totaled 58,242. (Denials totaled 2,937 for FY 1990 and 3,007 for FY 1989). Approvals of applications to fill temporary nonagricultural jobs amounted to 1,837

in FY 1990 and 2,607 in FY 1989; denials of applications to fill such temporary jobs for FY 1990 and FY 1989 were 1,039 and 859, respectively. In addition, under the H-2A program for temporary foreign agricultural workers, the Department certified 25,412 jobs during Calendar Year 1990 and 26,607 during Calendar Year 1989.

The level of activity in both the agricultural and nonagricultural components of the program has increased significantly since the enactment of IRCA, which makes it illegal for employers to hire undocumented foreign workers.

Targeted Jobs Tax Credit

The TJTC program provides credits against Federal income tax liability for employers who hire individuals from nine targeted groups. These groups include economically disadvantaged youth and welfare recipients who traditionally find it difficult to obtain and hold a job. The TJTC program, first authorized by the Revenue Act of 1978 (P.L. 95-600) and subsequently reauthorized several times, is administered jointly by the Departments of Labor and Treasury. Individuals from the designated target groups are issued vouchers indicating their eligibility for the credit. Employers who hire persons with vouchers can then obtain certifications from local ES offices documenting their eligibility to receive the credit. While almost all vouchers are issued by local employment service offices, other agencies authorized to issue vouchers include qualified cooperative education programs, local welfare offices, and local offices of the Department of Veterans' Affairs.

For most target groups, employers may claim a credit of 40 percent of the first $6,000 of an employee's first year wages, for a maximum of $2,400. For economically disadvantaged summer youth employees, employers may claim a credit of 40 percent of wages up to $3,000, for a maximum credit of $1,200.

For PY 1989, almost 734,000 vouchers and 450,000 certifications were issued. During PY 1988, almost 815,000 vouchers were issued with some 485,000 certifications provided to employers.

UNEMPLOYMENT INSURANCE PROGRAM

The Federal-State unemployment insurance (UI) system provides cash payments directly to unemployed persons who were engaged in work covered by State UI laws, lost their jobs through no fault of their own, and are looking for new employment.

Approximately 8.1 million people in FY 1990 and 7.1 million people in FY 1989 received jobless benefits under the regular State UI benefit program. Extended benefits (EB) were paid by three States in FY 1990 and only one State in FY 1989. Expenditures for regular State benefits and EB totaled approximately $16.8 billion and $13.5 billion in FY 1990 and FY 1989, respectively. (Table 12 provides summary data on benefits paid by and beneficiaries of the regular UI and EB programs and four smaller Federal unemployment compensation programs.)

The principal UI initiatives underway during the *Report* period concerned accelerating the reemployment of jobless workers through the operation of demonstration programs, and reinforcing the integrity of the UI system itself, to ensure that it is both fiscally sound and equitably

The UI System: How It Works

The UI system covers about 105 million workers, virtually all persons working for salaries and wages in the Nation. It was established under the tax credit and grant incentives enacted in the original Social Security Act of 1935. The system is basically financed through State taxes paid by employers on the wages of their covered workers, although four States also collect small taxes from employees. Funds collected are held for the States in the Unemployment Trust Fund in the U.S. Treasury.

State agencies take applications for and administer the unemployment insurance. Regular benefits (cash payments to laid-off workers) are payable for up to 26 weeks in most States, and extended benefits (EB) are payable in individual States when "triggered on" by periods of high unemployment in a State. EB payments increase a claimant's benefit entitlement by half of their entitlement to regular benefits, for a combined total of up to 39 weeks. Extended benefits are funded on a shared basis: half from State funds and half from Federal sources.

As agents of the Federal Government, States also pay benefits to veterans with recent service in the Armed Forces, former civilian Federal employees, and workers who lose their jobs as a result of the Nation's trade policies or as a result of a natural disaster.

Table 12. Unemployment Compensation: Benefits Paid and Beneficiaries by Program

Program	Amount (In Millions)		Beneficiaries (In Thousands)	
	FY 1990	FY 1989	FY 1990	FY 1989
Regular State Unemployment Benefits	$16,822	$13,489	8,091	7,090
Federal-State Extended Benefits	20	4	28	5
Unemployment Compensation for Federal Civilian Employees (UCFE)[a]	190	194	97	90
Unemployment Compensation for Ex-servicemembers (UCX)[a]	135	107	97	74
Trade Readjustment Allowances[b]	93	125	20	24
Disaster Unemployment Assistance (DUA)[c]	31	1	NA	NA
Total[d]	$17,291	$13,920	8,230	7,215

[a] The UCFE program provides benefits to jobless former Federal employees, and the UCX program provides benefits to unemployed ex-servicemembers. Both programs are financed with Federal funds, with States—through agreements with the Secretary of Labor—determining benefit amounts and terms and conditions of receipt. Figures above include joint claims.

[b] Trade readjustment allowances are provided to workers laid off by firms affected by import competition. Claimants must exhaust eligibility for regular UI and EB before collecting TRA and must be in training or have a temporary waiver. (See the section on trade adjustment assistance.)

[c] Disaster unemployment assistance aids workers made jobless by a major disaster as declared by the President. Benefit payments are funded out of the Federal Emergency Management Agency's appropriation. Individuals eligible for regular UI benefits are not eligible for DUA.

[d] To avoid duplication, EB and TRA recipients are not included in the total, and the estimated UCFE/UCX beneficiaries with joint claims are counted only once. The latter are estimated at 39,000 in FY 1989 and 55,000 in FY 1990.

Source: U.S. Department of Labor, Employment and Training Administration.

administered. Activities included reemployment demonstration projects, self-employment demonstration projects, and integrity initiatives, such as the Performance Measurement Review project, the Quality Control program, and the Kansas Nonmonetary Expert System Prototype.

Reemployment Demonstration Projects

In the mid-1980s the Department initiated a series of demonstration projects designed to use the UI system to assist UI recipients in their return to work. These demonstrations have three primary objectives:

- To identify UI claimants who are in need of reemployment services early in their spell of unemployment;
- To test different reemployment service options designed to assist targeted UI claimants in becoming reemployed in either a wage or salary job or through self-employment; and
- To create effective service delivery systems for dislocated workers through improved linkages between UI and other service providers, including the Employment Service, JTPA programs, and economic development agencies.

Three States—New Jersey, Pennsylvania, and Washington—ran such a demonstration program during the *Report* period.

The New Jersey Project

The New Jersey demonstration tested three comprehensive packages of reemployment services: (1) job search assistance (JSA) only; (2) JSA plus training or relocation assistance; and (3) JSA plus a "reemployment bonus," a cash incentive for early reemployment. A report detailing the experience of the New Jersey demonstration project, which got underway in July 1986, is summarized in Chapter 2.

Reemployment Bonus Demonstration Projects

Based on the results of the New Jersey demonstration and an earlier project conducted by the State of Illinois, the "reemployment bonus" appeared to be a promising option for accelerating the reemployment of UI claimants. The projects in Pennsylvania and Washington were designed to identify the optimum bonus offer by testing the effect of different bonus amounts and different periods of time in which to qualify for a reemployment bonus.

The demonstrations were completed in FY 1990. The Washington project offered reemployment bonuses to 14,000 UI claimants and paid 1,815 bonuses, an average of $567 per payment. In Pennsylvania, 10,060 UI claimants were offered bonuses, and 773 claimants were paid bonuses averaging $926 each. The final reports on the Washington and Pennsylvania reemployment bonus demonstrations were released in FY 1992.

Self-Employment Demonstration Projects

During the *Report* period, the Department continued to study the viability of self-employment as a reemployment option for some portion of the UI claimant population. Interest in this approach is based largely on the experience of several Western European countries over the past decade. Demonstration projects in the States of Washington and Massachusetts provided eligible UI claimants who were interested in self-employment with a package of assistance designed to help them start their own businesses—usually a sole proprietorship with one or a few employees.

The projects were designed to provide a combination of self-employment allowance payments and business development services, such as business training, counseling, and technical assistance. The Washington Self-Employment Project, called SEED, also provided participants with lump-sum payments of seed capital, equal to their remaining UI entitlements, to help participants with business start-up expenses. The Massachusetts demonstration, known as the Enterprise Project, provides participants with biweekly payments, equal to their regular UI benefits, as an income stream while they plan and establish their businesses.

SEED began in six sites in February 1990. By the end of FY 1990, 747 participants had been selected for the project and 331 had received lump-sum payments, averaging $4,221, to start their own businesses. The project was completed in FY 1991.

The Enterprise Project began operation in seven sites in May 1990. Eighty-five participants had been enrolled in the project by the end of the fiscal year. They received biweekly self-employment allowance payments averaging $529. Project operations are to continue for three years.

Integrity Initiatives

The Department continued to develop systems to provide a comprehensive, integrated approach to ensure the accuracy and timeliness of the UI program in the collection of revenues and benefits. In addition to the ongoing implementation of the Quality Control system, the Department began the UI Performance Measurement Review program and continued a number of other integrity initiatives.

Performance Measurement Review Project

In Fiscal Year 1989, the Department initiated a UI Performance Measurement Review (PMR) project. This multiyear, multiphased project is a comprehensive examination of the methods for assessing the UI performance of State Employment Security Agencies and for monitoring coordination among the various components of the Secretary's UI oversight system. The project was prompted by significant changes in the operating environment of the UI system, including technological advances in the automation of State UI delivery systems and changes in Federal legislation.

The intent of PMR is to produce a comprehensive and integrated performance measurement system to support the Secretary's statutory oversight responsibilities and to assist SESAs in improving their UI program performance. The PMR project is coordinated with several other UI initiatives: Benefits Quality Control, Revenue Quality Control, and Cash Management.

Phase I of PMR, concerned with research and alternative measurement development, was scheduled to be completed in January 1992. Initial research results determined that: (1) a number of UI services provided to the States' constituents—claimants and employers—are not measured; (2) there are existing UI service measures that require modification; and (3) in some instances there are duplicative measures.

Phase I will also produce a field test design to determine the viability of the alternative measures in meeting

the project's objectives. Phase II, scheduled to begin in 1992, will include field testing and retesting, while Phase III will involve training SESA and Federal staff in performance measurement system methodologies, prior to national implementation.

Quality Control

The UI Quality Control program is a system for determining the quality of State operations. It uses different methodologies, and assesses different dimensions of quality, depending on the aspect of UI operations covered. Its measurements both enable SESAs to identify and correct operational problems, and provide a means by which the Secretary exercises oversight responsibilities to determine whether States comply with Federal UI statutes.

Benefits Quality Control. Benefits Quality Control (BQC) provides statistically sound estimates of the accuracy of SESA benefit payment activities through its comprehensive verification of small random samples of benefit payments. Special State staff operate the program; quality assurance is provided by periodic reviews by Federal regional and national office staff. During the first three full years of the program, the weighted average overpayment rate for the UI system declined steadily, from 10.1 percent in Calendar Year 1988, to 8.8 percent in 1989, and 8.0 percent in 1990.

One of the reasons for the drop in overall overpayment rates has been program improvement actions taken by the SESAs in response to BQC findings. Some actions can be taken directly, on the basis of what is contained in the extensive data record compiled on each BQC case. The Department has provided each State with software enabling them to analyze and display the QC findings in a variety of ways so that they can determine the causes, responsibilities, and magnitude of payment errors, and make improvements directly.

Often, however, QC data indicate only where errors are occurring and their probable magnitude; to develop program improvement plans, other management information or specially targeted studies are needed. The Department has encouraged this activity by allowing States to reduce sampling levels temporarily so that they can conduct such studies. By the end of FY 1990, about half the SESAs had undertaken program improvement studies.

In November 1988, the Department opened the National Quality Control Training Center, operated under a cooperative agreement by the State of Minnesota. Center activities are designed to improve State staff's ability to use QC hardware and software for analysis, program management, and report production, and thus more effectively operate the QC program itself and develop useful information for managers and researchers. Courses offered by the Center include training in statistical theory, report-generating techniques, and graphics presentation.

Revenue Quality Control. In 1988, the Department began development of the Revenue Quality Control (RQC) program. Unlike BQC, which assesses only accuracy, RQC assesses the accuracy plus the timeliness and, as appropriate, the completeness of tax operations.

Beginning in FY 1989, the Department began a series of efforts to solicit comments on the policy issues and design features of RQC from the SESAs, the business community, labor organizations, the Department's Office of the Inspector General, and other interested parties. These comments informed policy decisions regarding the nature and scope of the program, the objectives for UI tax operations, methodologies for evaluating attainment of program objectives, the roles of the State and Federal partners, and funding.

Due to the complexity of revenue operations, RQC is being developed in a series of four separate components or modules. Each employs different evaluative methodologies and examines different aspects of tax quality: (1) The *Core RQC* module is the most developed. It assesses accuracy by examining the quality assurance or internal control systems of State processing operations, and timeliness and completeness by a variety of automated reports. (2) Employers' UI payroll tax rates are experience rated, i.e., they reflect the amount of "chargeable" benefits paid to former employees. A second module, the *Benefit Charging* component, has been developed to assess both how accurately these charge decisions are made and how benefit charges are allocated to employers' accounts. (3) The *Employer Compliance* module will examine external accuracy—the accuracy of employers' contribution reports—by auditing a random sample of known employers. The findings will be used to estimate noncompliance rates and formulate profiles of firms likely to be out of compliance to guide future audit selection. (4) To ensure the validity of the reports-based measures used in the *Core RQC* module, the *Validation of Reports* module will develop and test a methodology for validating key data.

The *Core RQC* and *Benefit Charging* components are scheduled for implementation in FY 1993. The other two modules are expected to be implemented in the following year.

Other Integrity Initiatives

In addition to the Quality Control program, the Department supported a number of ongoing efforts to improve the integrity of the UI system. For example, staff identified approximately $319 million in FY 1990 and $285 million in FY 1989 in State UI benefit overpayments—

the bulk of it through automated detection systems. They recovered approximately $162 million and $153 million of FY 1990 and FY 1989 monies respectively, as of September 1990.

All States operated systems which allowed them to more easily identify potential fraud cases and to increase the amount of overpayments recovered. The most widely used detection and recovery systems used by States are the Model Crossmatch System and the Model Recovery System. All States participated in the Systematic Alien Verification for Entitlements program, a verification system to ensure that aliens meet immigration status requirements for UI program eligibility.

In FY 1990, the State of Kansas and the ERC Government Systems Company completed a study, funded by the Department, examining how a computer "expert" system may be a valuable tool in State operations for determining claimant eligibility for payment of benefits, particularly related to Kansas voluntary quit laws. Expert system technology is presently the most commercially viable aspect of artificial intelligence, where computers are programmed to think and reason like a human being. The *Kansas Nonmonetary Expert System Prototype* study indicated that, within the restricted scope of the project, the value of the technology was demonstrated in the nonmonetary determination process, in gathering facts and rendering decisions with reasonable accuracy.

TRADE ADJUSTMENT ASSISTANCE FOR WORKERS

Title II of the Trade Act of 1974 (P.L. 93-618), as amended, provides trade adjustment assistance (TAA) to workers who lose their jobs or have their hours or wages reduced because of increased imports.

Under the Trade Act, worker groups who believe that separations or the threat of separations from employment are the result of import competition may file a petition for TAA with the Department of Labor. A fact-finding investigation is conducted to substantiate that the worker separations are linked to import competition. The requirements for TAA eligibility are that:

- A significant number or proportion of the workers have become totally or partially separated from their jobs, or are threatened with separation.
- Sales or production, or both, have decreased absolutely.
- Increases of imports of articles like or directly competitive with the articles produced have contributed importantly to worker separations and to decreased company sales or production.

Workers certified by the Secretary of Labor as eligible to apply for TAA may receive training in new occupational skills, a job search allowance when suitable employment is not available in the workers' normal commuting area, a relocation allowance when the worker obtains permanent employment outside the commuting area, and a weekly trade readjustment allowance (TRA).

The Omnibus Trade and Competitiveness Act of 1988 amended the Trade Act and dramatically reshaped the TAA program. Major changes include: (1) Workers are required to participate in training as a condition for receiving basic TRA, and (2) TAA activities must be coordinated with program services for dislocated workers provided under Title III of JTPA and with the State agency administering WARN.

In September 1990, the Department published *Trade Adjustment Assistance Program: Implementing a New Model for Reemploying Dislocated Workers,* a series of case studies from 12 States examining successful techniques to facilitate early contact with potentially eligible workers and accelerate their entry into training. The 12 studies focus on key facets of the administration of the training and training waiver provisions of the 1988 amendments and the coordination among TAA and other appropriate programs. The publication was designed to stimulate creative thinking about effective models for retraining—incorporating long-term financial support, early intervention, and supportive services through interagency coordination.

Table 13 provides information on TAA activities for Fiscal Years 1989 and 1990, including petitions processed, services provided, numbers of workers served, and program costs.

LABOR SURPLUS AREAS PROGRAM

The Department has been responsible for designating jurisdictions as "labor surplus" areas since the early 1950s. Labor surplus areas are jurisdictions suffering from high unemployment. The purpose of so classifying areas is to direct the Government's procurement dollars into those areas where people are in the most severe economic need. Employers located in these areas receive preference in bidding on Federal procurement contracts.

The Department issues a list of the labor surplus areas annually and adds jurisdictions to the list during the course of the year under an "exceptional circumstances" provision. This permits the addition of areas which did not meet the high unemployment criterion for the initial list, but have since had major disruptions in their local economies due to natural disasters, plant closings, major layoffs, or contract cancellations.

The list for FY 1990 contained those civil jurisdictions which had an average unemployment rate of at least 7.1 percent for the period January 1987-December 1988.

Table 13. Trade Adjustment Assistance Program Costs and Activities

Activity	FY 1990	FY 1989
Petitions:		
Petitions filed	1,455	2,282
Worker groups certified as eligible	588	1,115
Estimated workers covered	61,326	89,021
Petitions denied	836	1,096
Petitions terminated[a]	77	157
Program Services:		
Application for reemployment services	38,459	41,994
Employment service placement/obtained jobs	12,199	12,416
Entered training	18,057	17,042
Job searches[b]	565	863
Relocations[b]	1,245	989
State allocations (in millions)[c]	$57.6	$62.6
Trade Readjustment Allowances (TRA):		
Workers filing for TRA	42,704	45,523
Workers receiving 1st payment	19,545	23,681
Total weeks of TRA paid	564,298	717,601
Amount paid (in millions)	$92.6	$125.4
Average weekly benefit paid	$164.09	$174.69

[a] Number of petitions terminated after fact-finding was instituted for reasons such as the worker group was determined to be covered already by a certification or the petition was duplicative of one currently under investigation.

[b] Number of workers who received allowances to conduct job searches and to relocate to another geographic area to obtain suitable employment.

[c] Funds allocated to States for training and job search and relocation allowances, and for the costs to States of administering TAA program services to certified workers.

Initially, 1,682 jurisdictions were designated as labor surplus areas for FY 1990, with two more areas added under the exceptional circumstances provision during the year.

For FY 1989, jurisdictions with an average unemployment rate of 8.0 percent during the January 1986-December 1987 period were designated labor surplus areas. The FY 1989 list initially identified 1,713 labor surplus areas; two others were added during the course of the year.

The labor surplus areas program is authorized by P.L. 99-272, P.L. 95-89, and P.L. 96-302.

WORK INCENTIVE PROGRAM

For over 20 years, the Work Incentive (WIN) program assisted clients who were receiving Aid to Families with Dependent Children (AFDC) grants. The program provided welfare recipients with training, job search, and supportive social services to prepare for, find, and keep unsubsidized jobs. Authority for WIN ended on September 30, 1990, at which time it was replaced by the Job Opportunities and Basic Skills (JOBS) program.[11]

WIN operated through grants provided to the States by the Departments of Labor and Health and Human Ser-

[11] The JOBS program is authorized by the Family Support Act of 1988 (P.L. 100-485) and replaced the WIN program. WIN was established by amendments to Title IV (Parts A & C) of the Social Security Amendments of 1967 (P.L. 90-248). This section of the *Report* responds to the report requirements of Title IV, Part C, Section 440, of the Social Security Act.

Table 14. Work Incentive Program: Selected Data for Regular and Demonstration WIN States

Item	All WIN States		Demonstration States		Regular States	
	FY 1990	FY 1989	FY 1990	FY 1989	FY 1990	FY 1989
Budget authority (grants to States) in millions	$32.6	$80.3	$22.6	$62.5	$10.0	$17.8
Number of WIN States at end of fiscal year	19	39	10[a]	24	9[b]	15
WIN on-board registrants at end of fiscal year	318,600	544,300	251,800	450,900	66,800	93,300
Registrants finding unsubsidized jobs	98,600[c]	266,900[d]	74,800	236,300	23,800	30,700
Registrants off welfare because employed	60,900[c]	134,000[d]	46,000	117,600	14,900	16,300

Note: The term "State" includes the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. This table includes some estimated data.

[a] The 10 demonstration States were: Arizona, Indiana, Kentucky, Maine, Mississippi, New York, Oregon, Tennessee, Texas, and Virginia.

[b] The nine States operating regular WIN programs were: Alaska, Guam, Hawaii, Idaho, Louisiana, North Carolina, Puerto Rico, Vermont, and Washington.

[c] Data for finding employment and leaving welfare for the 20 States that began the JOBS program in FY 1990 are included because the activity was funded by WIN.

[d] Data for finding employment and leaving welfare for the 15 States that began the JOBS program in FY 1989 are included because the activity was funded by WIN.

Source: U.S. Department of Labor, Employment and Training Administration.

vices (HHS). "Regular" WIN programs were administered jointly at the Federal level by the two Departments and at the State level by the State labor and welfare agencies. Since 1982, some States had conducted WIN "demonstration" programs. These were administered solely by HHS at the Federal level and by the welfare agency at the State level.

Nineteen States continued to administer "regular" or "demonstration" WIN programs through September 1990, at which time almost 319,000 welfare clients were registered in such programs. WIN staff helped nearly 98,600 registrants find unsubsidized jobs during the fiscal year; 62 percent of these workers earned enough to leave the welfare rolls. (See Table 14.)

HHS is charged as the sole Federal administrator of JOBS. On July 1, 1989, HHS began providing grants to some States to administer JOBS programs. By October 1, 1990, all 54 States and jurisdictions were receiving grants from HHS to operate such programs solely through their welfare agencies. (See the JTPA introduction for information on JOBS-JTPA coordination efforts.)

NATIONAL COMMISSION FOR EMPLOYMENT POLICY

During Program Years 1988 and 1989, the National Commission for Employment Policy (NCEP) continued to focus its research efforts on studies related to improving JTPA program performance and to broad issues facing America's work force.

JTPA-related research reports released by the Commission in the two-year period examined such topics as

computer-assisted instruction in JTPA, the relationship between the Perkins Vocational Education Act and JTPA, the training of Hispanics, the coordination of JTPA programs for the homeless with other projects for the homeless, and performance standards, including an evaluation of the effects of performance standards on clients, services, and costs, and the effective use of standards.

Other employment-related research reports released during the two program years included documents examining the labor market problems of Indians and Native Americans, State-financed work-based retraining programs, employee benefits, the use of market incentives in training programs, and State strategic planning for the future work force.

During the *Report* period, the Commission held eight official meetings and conducted hearings on the Employment Service and Hispanics in JTPA, the latter to provide background information on barriers to training faced by Hispanics. In PY 1989, the Commission sponsored a workshop on employment and training needs of the homeless at the annual conference of the National Alliance of Business to provide information on the special needs of homeless individuals and how to design effective programs for them.

In addition, the Commission cosponsored, with the National Governors' Association, the second national conference of the National Association of State Job Training Coordinating Council Chairs. NCEP staff also briefed Congressional members and staff on the Commission's research findings.

The Commission is authorized by the Job Training Partnership Act. It is composed of 15 members, private citizens appointed by the President and broadly representative of business, labor, commerce, education, veterans groups, State and local elected officials, community-based organizations, persons served by training and employment programs, and the general public. During the reporting period, the Commission's annual appropriation was $2 million.

NATIONAL OCCUPATIONAL INFORMATION COORDINATING COMMITTEE

The National Occupational Information Coordinating Committee (NOICC) assists States to promote the development, improvement, dissemination, and use of occupational and career information. This information supports employment, training, and vocational program planning at the State and local levels and career exploration by youth and adults. NOICC is an independent committee authorized by JTPA and the Perkins Vocational Education Act. It is composed of representatives of 10 Federal agencies across five Departments, including the Assistant Secretary of Labor for Employment and Training and the Commissioner of Labor Statistics.

In PY 1989, NOICC obligated $6.5 million directly to State Occupational Information Coordinating Committees (SOICCs) through its Basic Assistance Grant program. In PY 1988, $5.79 million was obligated. This represented more than 75 percent of the funds that NOICC received from the Departments of Labor and Education (its two sources of funds) during the two years. The funds averaged $116,100 for the 56 States/territories in PY 1989 and $103,400 per State in PY 1988.

During the two program years, the NOICC/SOICC network:

- Operated an Occupational Information System (OIS) in 46 States, and used the Micro-OIS, a microcomputer based system it developed in 39 States. The OIS provides information to support JTPA planning, vocational education, and other employment-related training programs at the State and local level.
- Launched a new project to develop an Economic Development and Employer Planning System (EDEPS), a microcomputer-based system designed for use in economic development planning by employers and by State and local planning agencies; conducted a feasibility study of EDEPS, and based on the results, continued the project by initiating software development for five modules with a pilot test scheduled for PY 1991.
- Initiated a major expansion of the National Career Development Guidelines, providing grants to 16 new States to implement guidelines to develop and enhance career development programs. By the end of PY 1989, local programs and institutions, such as JTPA, adult education, the Employment Service, and schools and community colleges, were using the guidelines in 26 States.
- Managed the computer-based Career Information Delivery Systems which served approximately six million people at an estimated 16,000 sites in 48 States in each program year.
- Developed through the National Crosswalk Service Center a microcomputer-based version of the NOICC Master Crosswalk, which allows users to see the relationship among major occupational and educational classification systems used by Federal, State, and local governments. For example, it links vocational preparation with specific occupations.
- Established the NOICC Training Support Center to provide the NOICC/SOICC network with coordinated, ongoing training for counselors and teachers, including training on the National Career Development Guidelines. The Center also assisted in the planning and organization of the NOICC/SOICC Annual Conference.

● Developed a pilot version of the Civilian Occupational Labor Market Information System and expanded its use to 22 military installations in seven States. The COLMIS, funded by the Department of Labor's Veterans' Employment and Training Service, provides summary profiles of local labor markets and is designed for use by personnel in all four service branches who are considering a return to civilian life.

● Conducted one technical conference during PY 1989 and two in PY 1988. The 1989 conference focused on occupational and career information delivery systems; the 1988 conferences were designed to help States develop industry and occupational projections.

● Cosponsored with ETA the Southeast Regional and Western Regional Apprenticeship and Training Conferences, which brought together providers and users of apprenticeship information.

● Initiated the Career Tabloid Facilitation Project, to assist SOICCs in producing effective career information tabloid newspapers designed to help youth and adults with career exploration, and completed a guide for developing the materials.

● Cosponsored with the National Career Development Association an analysis of occupational data collected by the Gallup Organization. The final report of the Gallup project—*Work in America: A Survey of U.S. Adults on Jobs, Careers and the Workplace*—highlighted the strong interest of adults in improved and more accessible career planning information for themselves and for youth.

CHAPTER 2

RESEARCH AND EVALUATION FINDINGS

RESEARCH AND EVALUATION FINDINGS

INTRODUCTION

This chapter summarizes the findings of major research and evaluation projects completed from July 1988 through June 1990, Program Years 1988 and 1989. Full or partial funding for these projects was provided by the Department of Labor's Employment and Training Administration.

The projects discussed in this section focus on specific aspects of a variety of issues, many complex. Readers are cautioned that no single study can provide a complete picture of any particular subject area. Furthermore, the context in which a study is conducted often has a direct impact on the applicability of its findings. In addition, these summaries are not intended to represent *all* of the information provided in the full study reports; more information can be found in the reports referenced in the footnotes. Finally, all conclusions described in this section are those of the researchers and evaluators and do not necessarily represent the views of the U.S. Department of Labor.

The projects summarized are organized under four headings: (1) strengthening workforce quality; (2) labor market studies of specific groups; (3) program development and improvement; and (4) child care. The annotated bibliography lists all reports covered in this edition of the *Training and Employment Report of the Secretary of Labor* and in three earlier editions, covering five Program Years, 1985-1989.

STRENGTHENING WORKFORCE QUALITY

An important aspect of the Department's research addresses broad labor market issues—particularly issues relating to strengthening the quality of the Nation's work force—and ETA has sponsored a number of research efforts in an attempt to determine what works best for training and developing workers' skills. This research includes a variety of studies which identify skills that employers need, provide insight into measuring and evaluating the benefits of training, and review financial incentives for employers to provide training for their existing work force.

Structure and Organization of Training Provided by Employers

U.S. employers spend about $30 billion per year on formal training, or approximately one to two percent of their payrolls, according to information obtained from a comprehensive, 30-month research effort which explored training practices of U.S. employers. The study was conducted for the Department by the American Society for Training and Development (ASTD).[12]

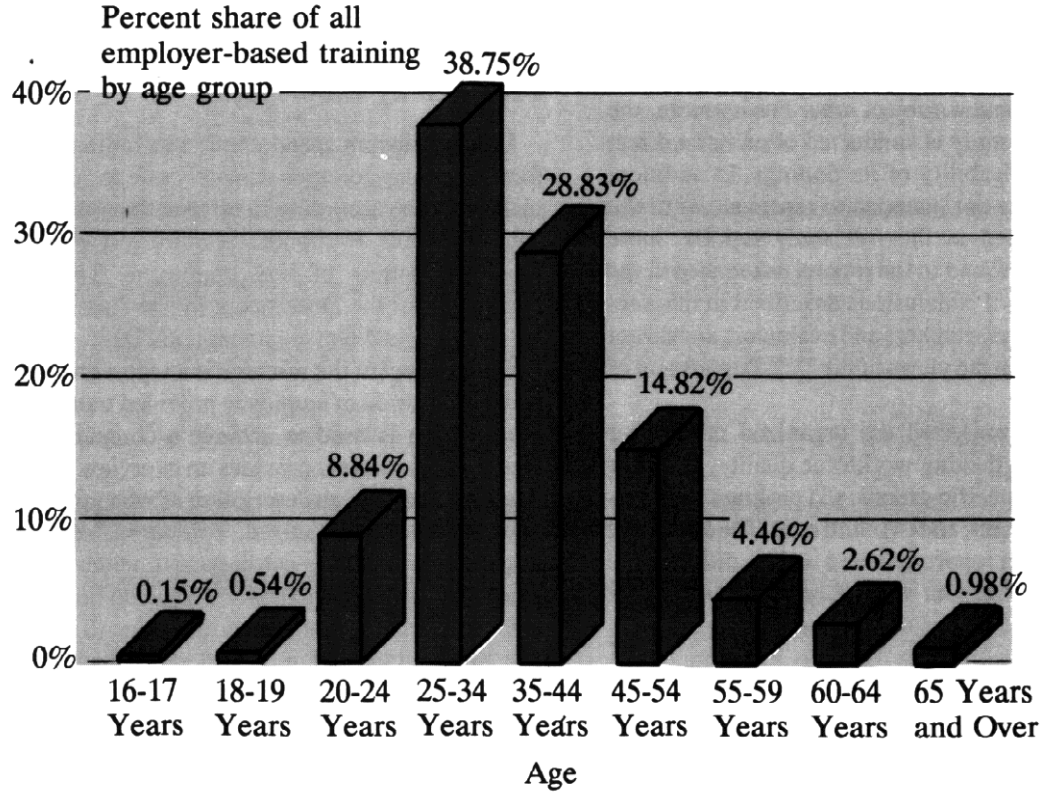
One product of the research is a report on the structure and organization of employer-provided training and how this training is used to achieve a company's strategic goals. The document provides an overview of training in America, including a description of who gets trained and how training is organized, structured, and delivered; describes how training can be used to achieve the goals of an organization; and examines why and how companies use outside resources to provide training to their employees. Key conclusions of the report include:

- Employer expenditures for training, currently one to two percent of their payroll, are not sufficient. Employers should aim to spend four percent of payroll on training—raising the total from $30 billion to $88 billion annually.

[12] Anthony P. Carnevale, Leila J. Gainer, and Janice Villet, *Best Practices: What Works in Training and Development (Organization and Strategic Role)* (Alexandria, Va.: American Society for Training and Development, 1989).

- Only 55 percent of American workers receive training in preparation for their jobs and only 35 percent obtain training to upgrade their skills once they are on the job. Of the 55 percent receiving qualifying training, 29 percent obtain training from an educational institution, and 36 percent receive employer-based training. Of the 35 percent who receive training to upgrade their skills once they are on the job, 12 percent receive it from educational institutions and 23 percent receive training from formal and informal employer-based programs.
- Professionals are the most highly trained members of the work force, followed by technicians, management support specialists, general managers, high-tech production workers, and construction workers. Professionals receive the vast majority of their qualifying training from educational institutions in preparation for their jobs, while transportation workers, machine operators, laborers, and many types of skilled trade workers receive most of their qualifying training from informal, employer-based training.
- Information managers receive the most employer-based training—averaging 100 hours per year—while clerical employees receive the least amount of training—approximately 17 hours per year. Management personnel receive from 30 to 36 hours of training per year, and technical personnel receive approximately 40 hours per year.
- Most formal employer-based training is provided to workers between ages 24 and 44 (see Chart 3).
- In addition to employer-based training, there are a number of institutions and programs that provide training. They include public and private secondary and postsecondary institutions, the military, the secondary and postsecondary vocational education system, formal apprenticeship programs, the "second-chance" training

Chart 3. Most Formal Employer-Based Training Is Provided to Employees Between the Ages of 25 and 44



Source: *Best Practices: What Works in Training and Development (Organization and Strategic Role)*, American Society for Training and Development, Alexandria, Va., 1989.

system (such as the Job Training Partnership Act system), and the training industry.

- There is a positive correlation between learning and individual opportunity. Ten percent of the differences in earnings over a lifetime can be attributed to preemployment learning in school, and the percentage is higher for increasingly higher levels of education. Formal employer-based training has the most substantial and durable effect on lifetime earnings.

The report notes that employers will need to make a greater commitment to training in the future as the skill demands of the workplace and the pool of potential employees changes. The report suggests that employers integrate human resource development activities into their institutional cultures and structures, and center these activities as close as possible to the point of production and service delivery. The report also suggests that government agencies address the needs of disadvantaged young people with effective policies and resources to prepare them for entry into the work force and that some form of investment incentives for training be offered to employers.

Technical Training

Approximately 30 percent of all training dollars spent by employers is devoted to training for technical workers, according to a report on technical training in America.[13] The report reflects information obtained from the research effort conducted by ASTD which explored training practices in America's employer institutions.

The report profiles the current status of technical training in the United States, including the current size and structure of the technical work force, the composition of the work force, and an overview of organizational training practices. The report also: (1) discusses trends occurring in technical training and emerging technical skill requirements; (2) provides a statistical analysis of the technical work force (including estimates of the size and scope of the technical work force, employment by industry, earnings compared to nontechnical workers, and comparisons of growth potential); (3) highlights the structure and organization of technical training within employer institutions and identifies groups targeted to receive technical training, along with the number of hours devoted to technical training; (4) diagrams occupational training and retraining patterns for the technical work force; and (5) provides case studies of organizations offering technical training, and describes how technical training connects to other types of training and human resource management functions.

Major findings of the report indicate that:

- There were 20.3 million technical workers in the United States in 1986. These technical workers represented 18.2 percent of the total work force, and they earn well above the average for all workers (see Chart 4).
- Technical professionals (e.g., scientists, doctors, engineers) made up 24 percent of the total technical work force in 1986, while technicians (e.g., dental hygienists, drafters) made up 18 percent and skilled trade workers (blue collar workers concentrated in the construction trades and manufacturing) represented 58 percent of the technical work force.
- Technical professionals are among the most highly educated and trained of the Nation's employees. They receive substantial amounts of both employer-provided training and formal education—usually four or more years of higher education to qualify for their jobs.
- Technicians also are highly educated and well trained, usually receiving at least two years of formal education and some on-the-job training. Data processing personnel usually receive four or more years of formal education.
- More than other occupations, skilled trade workers rely on informal training received on the job rather than formal education for most of their job training.
- Despite a large degree of centralization of the technical training function within an organization, there is a clear trend among companies toward centralizing control over the design and development of technical courses. Only delivery appears to remain truly decentralized, and this is primarily in the case of technicians and craft workers.

Measuring and Evaluating the Benefits of Training

According to another report based on the ASTD study, current accounting systems for measuring training costs are not adequate. In response, ASTD developed a generic accounting model for a more accurate measurement of the benefits of training.[14]

In addition, because of the importance to employers of thoroughly evaluating the results of training, the report provides practitioners with strategies for connecting training to strategic business goals, methods for conducting organizational needs analyses, and recommendations for conducting cost-benefit analyses.

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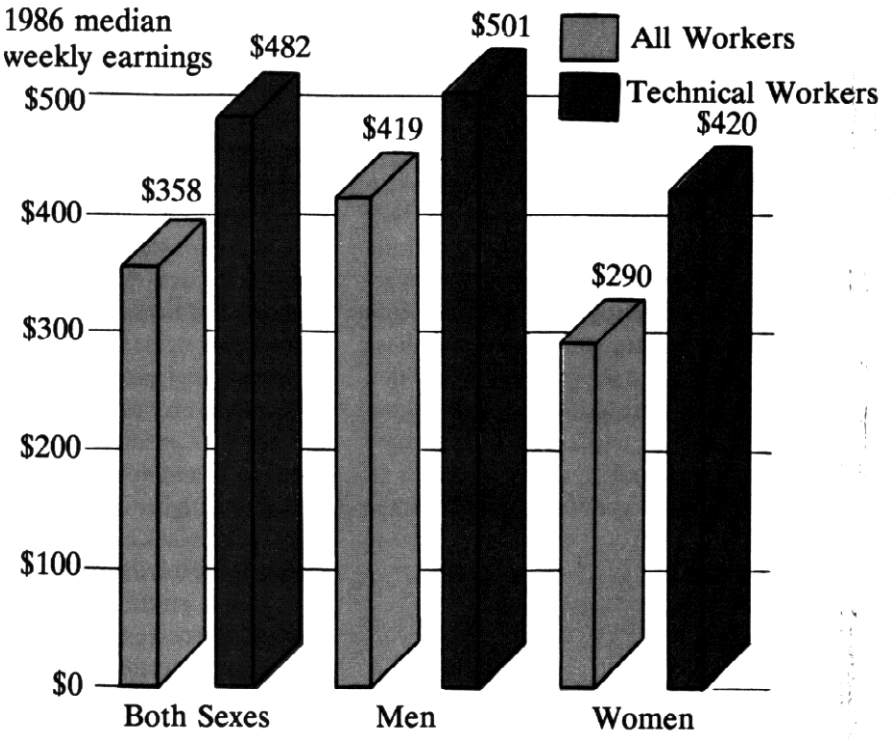
[13] Anthony P. Carnevale, Leila J. Gainer, and Eric R. Schultz, *Best Practices: What Works in Training and Development (Technical Training)* (Alexandria, Va.: American Society for Training and Development, 1989).

[14] Anthony P. Carnevale and Eric R. Schultz, *Best Practices: What Works in Training and Development (Accounting and Evaluation)* (Alexandria, Va.: American Society for Training and Development, 1989).

Chart 4. Technical Workers Earn Well Above the Average for All Workers



Source: *Best Practices: What Works in Training and Development (Technical Training),* American Society for Training and Development, Alexandria, Va. 1989.

The report also includes a discussion of evaluation methodology, including evaluation designs and quantitative and qualitative data collection methods. It identifies four levels of evaluations, ranging from very rigorous to very simple, and recommends specific evaluation designs and data collection methods which respond to the particular needs of various organizations. Key findings/results of the report include the following:

- Because it is not possible to establish a uniform training accounting model for all corporations, ASTD developed a flexible, comprehensive model which shows all possible costs which can be included when measuring training. Training experiences of seven major corporations are presented in the report as case studies.
- There is a growing demand for evaluating the costs versus benefits of training. All of the organizations interviewed for the study evaluated their training programs to some extent—usually at the participant reaction level. These organizations stressed the importance of planning for future evaluation of training programs early in the design of such programs.
- Evaluations of training conducted in organizations are far less rigorous and sophisticated than models found in literature. Sophisticated evaluation methodology is generally beyond the resources of most organizations to implement.

Identifying Skills That Employers Need

Rapid technological change, participative management, just-in-time production, and a variety of other workplace innovations have created a demand for more flexibility, adaptability, and a higher "base" level of skills from workers.

Another product of the DOL-sponsored ASTD study is a report on basic skills that: (1) assesses the skills employers want in their present-day work force; (2) describes why those skills are strategically important to employer

organizations; and (3) discusses why certain skills should be considered "basic."[15] A companion manual to the report describes steps involved in establishing a workplace basic skills program.[16]

The report explains 16 skills that employers believe are "workplace basics," defining each skill, describing why it is "basic," and explaining its theoretical foundation, its essential elements, and what constitutes competency and mastery.

At least one example of a successful training program for each skill, as well as a sample curriculum outline, is provided. The report also provides guidance for trainers on developing and establishing workplace basics programs. The 16 workplace basics identified in the report are: learning to learn; reading; writing; computation; oral communication; listening; problem-solving; creative thinking; self-esteem; motivation/goal setting; employability/career development; interpersonal skills; teamwork; negotiation; organizational effectiveness; and leadership.

The companion manual to the report provides a detailed eight-step plan for establishing a workplace basics program. Its intended audience includes practitioners and managers responsible for providing private or public training programs; administrators and instructors involved in the various basic skills (including literacy) programs; business and management consultants; and secondary, postsecondary, and adult educators (including vocational educators).

Who Receives Training

A fifth document coming out of the research effort of ASTD describes who receives training in America and how training is structured.[17] The report summarizes a variety of data obtained during the research effort which provides insight into employment and training practices in the public and private sectors. The report describes:

- The relationship between job-related learning, individual opportunity, and competitiveness;
- Institutions such as schools and job training programs which prepare workers to enter the world of work and their roles in qualifying workers;
- How employers provide in-house training and develop partnerships with private and public trainers in an effort to upgrade workers' skills; and
- Who the various trainee populations are and the kinds of training they receive.

The report reaches three principal conclusions: (1) job-related education and training are critically important to individual opportunity and the competitiveness of our Nation's employers; (2) there is not enough job-related training and education to meet the needs of employers; and (3) job-related education and training is unevenly distributed among the Nation's population.

The report recommends that:

- Employers increase their resource commitment for training and improve the integration of their training programs into their day-to-day operations.
- Educators change some of their basic training strategies by working more closely with employers to strengthen the link between learning in school and learning on the job. This would enable educators to keep pace with new knowledge and changing skill requirements which occur in the workplace.
- Government expand public policy goals for education and training beyond concern for the disadvantaged and dislocated worker to a broader concern for the employment security of the mass of American employees and for the competitiveness of the Nation's employers.

Linking Employers with Training Providers

Another publication resulting from the joint project with ASTD provides an overview of the findings about partnerships in training.[18]

The report reviews how employer-provider relationships are developed and sustained over time, and specifically discusses:

- Linkages between employers and training providers—how employers should determine what is available and how to select the best training package;
- Providers of training (including educational institutions, trade and professional associations, unions, and community-based organizations) and examples of specific types of training available; and
- Arrangements between employers and trainers for training for a wide range of occupational levels from management development to clerical training.

Through a series of checklists, the report assists employers to make better informed decisions about purchasing training. It also helps training providers understand

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[15] Anthony P. Carnevale, Leila J. Gainer, and Ann S. Meltzer, *Best Practices: What Works in Training and Development (Basic Skills)* (Alexandria, Va.: American Society for Training and Development, 1989).

[16] Anthony P. Carnevale, Leila J. Gainer, and Ann S. Meltzer, *Best Practices: What Works in Training and Development (Basic Skills Manual)* (Alexandria, Va.: American Society for Training and Development, 1989).

[17] Anthony P. Carnevale, Leila J. Gainer, *The Learning Enterprise* (Alexandria, Va.: American Society for Training and Development, 1989).

[18] Anthony P. Carnevale et al., *Training Partnerships: Linking Employers & Providers* (Alexandria, Va.: American Society for Training and Development, 1990).

how employers reach decisions regarding the purchase of training.

Financial Incentives for Employer-Provided Training

Direct grants to employers, mandatory training programs, and a carefully crafted tax credit are three approaches to increasing employers' investments in employee training, according to a study of current and previous employer training programs.[19]

While the skill requirements for many future jobs are increasing, Bureau of Labor Statistics data indicate that a growing percentage of new entrants into the labor force between 1988 and 2000 will be minorities. A disproportionate percentage of these individuals experience lower high school completion rates, have lower educational achievement scores, and have literacy problems. In addition, changes in technology, increases in the numbers of skill- and knowledge-intensive jobs, and dislocations due to industrial shifts often result in obsolescence of the skills of the Nation's current experienced workers.

The study offers several reasons why employers may be investing less in training than is economically optimal and suggests that offering incentives for employers to provide employee training would put the United States on a more equal footing with other countries.

In its examination of existing State-funded training programs, the study looks at the level and variety of funding sources, eligibility requirements, targeting of the trainee population, types of training provided, and delivery systems. The report says that the strength of State programs is their ability to be flexible, to address local skills shortages and training needs quickly, and to provide the needed hands-on monitoring.

The report also reviews relevant foreign experience with training programs. It discusses positive incentives in other countries, such as grants offered to apprentices in the United Kingdom and the funding of vocational technical training centers in West Germany, and negative incentives, such as "tax-or-train" programs in France and Germany used to ensure that businesses meet government training quotas.

The study examines alternative approaches to employer incentives. They are:

- *Tax Credits* which permit qualifying employers to deduct a portion of their tax liability when filing income tax returns. Under a training tax credit program, employers would be permitted to claim a tax credit for some proportion of their qualified expenditures on training. The credit could be designed so that only certain training expenditures are covered (e.g., instructional costs could be covered but not wages), and the program could include a cap on the amount of the credit that could be claimed.
- *Direct Grants* which offer financial payments to employers who have been approved by an application process and who engage in qualifying training. Grant programs are currently being used in U.S. State-financed training programs, as well as in training programs abroad. Grants may be used to reimburse employers for some or all approved training expenditures.
- *Levy/Grant and Mandatory Training Programs.* Under a levy/grant system, employers are required to make payments based on some measure of their ability to pay or need to train workers. The funds are then rebated to contributing employers on the basis of the training they conduct. In contrast, most mandatory training programs require firms to spend a minimum amount on training, or else forfeit to the Government the funds not spent.

The study further investigates how windfalls (which produce financial breaks for employers whose activities are not affected by the incentives) can be prevented; reviews the pros and cons of targeting workers, firms, or types of training; and examines approaches for the Federal Government to adopt to provide employer incentives for training.

Statewide Coordination to Raise Workforce Literacy Levels

Based on an analysis of nine States' experiences, a report on jobs and literacy provides practical guidance to States and organizations interested in mounting a concerted attack on the problem of basic skills deficiencies in the workplace.[20]

The nine States were selected competitively to participate in a policy "academy" designed to help them develop statewide coordinated policies aimed at raising workforce literacy levels.[21] The academy process—a structured combination of seminars, on-site technical assistance, and individual State activities—was sponsored by the Council of Governors' Policy Advisors (formerly known as the Council of State Policy and Planning Agencies) and was funded by the Department of Labor.

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[19] Burt S. Barnow, Amy B. Chasanov, and Abhay Pande, *Financial Incentives for Employer-Provided Worker Training: A Review of Relevant Experience in the U.S. and Abroad* (Washington, D.C.: The Urban Institute, 1990).

[20] Judith Chynoweth, *Enhancing Literacy for Jobs and Productivity* (Washington, D.C.: Council of State Policy and Planning Agencies [now known as the Council of Governors' Policy Advisors], 1989).

[21] These States were Florida, Idaho, Massachusetts, Michigan, Missouri, North Carolina, Tennessee, Utah, and Virginia.

The report contains detailed summaries of the work of each participating State, including problems encountered as well as accomplishments. All States made innovative changes regarding literacy policies as a result of their taking part in the project, and their actions fell into three broad categories: establishing comprehensive, integrated approaches (four States); starting special interagency endeavors (three States); and laying interagency groundwork for change (two States).

The academy process began in each State when the Governor appointed a State academy team of five to 10 key decision-makers who influence policy in the areas of literacy, education, employment and training, and human resources. Special emphasis was placed on developing strong partnerships within State government between traditional literacy providers (the education system) and the State's employment and training system (especially the JTPA component).

The teams met twice with national experts selected for their knowledge of issues related to literacy and their practical experience in policy and program development, finance, and accountability. Between the two meetings, held in May and December 1987, State teams worked on their own to further develop their policies and strategies and to build support for implementation. The council arranged visits to participating States by Academy "faculty," council staff, or other State team members as requested.

Sources of Information About Basic Skills Requirements

A review of the literature and materials related to basic skills, as well as discussions with public officials and industry representatives, resulted in a report which examines existing sources of information about basic skills required for specific occupations below the professional and managerial level and reviews methods for assessing those skills.[22] The project grew out of the concern for the future workforce needs of the United States and the increased interest in understanding what skills employers actually look for when hiring.

The report notes that despite the limited empirical information on prerequisites for specific occupations or clusters of occupations, there is consensus about the broad categories of skills employers want. These skills are: (1) academic or educational skills such as reading and computation; (2) behavioral skills such as dependability, maturity, and ability to learn; and (3) job-specific skills.

Regarding the methods for assessing basic skills, the report points out that although there are directories and lists of the many tests and assessments which could be used in training and employment programs, there is no straightforward way to compare the strengths, weaknesses, and details of the various instruments.

Key findings presented in the report include the following:

- There are many instruments to measure the basic academic skills identified by employers. The majority of these tests have been developed by either the education community for use in measuring student progress or by the employment community for use in determining aptitude, interest, and ability of candidates for civilian and military employment. (The report discusses a number of these tests.)
- There are many formal and informal methods for measuring behavioral skills (and the report discusses representative methods).
- Although all of the formal instruments have been subject to rigorous validity and reliability tests, there continues to be much discussion among education and employment experts about the validity of even the most widely used tests for employment purposes.
- Given the high national priority currently placed on basic skills and the number of large ongoing research efforts, it is possible that there will soon be more information about specific prerequisites for entry into specific occupations.

The Role of Two-Year Colleges

As a result of the "Productive America" project, a two-part report was prepared by the National Council for Occupational Education and the American Association of Community and Junior Colleges which examines special populations comprising tomorrow's work force and reviews the impact of Federal legislation on two-year colleges.[23] The report also presents recommendations for amending programs or laws to facilitate the use of two-year colleges and proposes alternative structural and program models to meet special population needs.

In reviewing the barriers to success of specific populations (immigrants, blacks, Hispanics, women returning to the labor force, workers with obsolete or deficient skills, displaced workers, disabled workers, Asians, and aging workers), the report introduces a "Workforce Productiv-

[22] Demetra Nightingale, *The Availability of Information for Defining and Assessing Basic Skills Required for Specific Occupations* (Washington, D.C.: The Urban Institute, 1990).

[23] Ted Martinez, Jr., *Productive America: Two-Year Colleges Unite to Improve Productivity in the Nation's Workforce* (Chicago, Ill.: The National Council for Occupational Education and the American Association of Community and Junior Colleges, 1990).

ity" model specifically designed to help these groups overcome barriers to success.

The model consists of a strategy which includes recruitment, assessment, five educational modalities, monitoring, personal counseling, and ongoing placement activities (from internships through full-time employment). Recommendations for educators to better utilize the resources of two-year colleges include the following:

- Review the college mission statement and ensure that the responsibility for local workforce development is included.
- Identify the special populations within the college's district and gather demographic and socioeconomic data describing each population.
- Assess and redevelop current vocational education programs and job training programs to ensure that they directly meet local employers' job skill requirements.
- Extend college placement office activities so that successful students are provided access to job openings and are directly assisted in obtaining jobs.
- Enlist the support of local commerce and industry as full partners in establishing all special initiatives and training programs in order to solve labor shortage problems by pooling appropriate resources.
- Encourage the continued integration and coordination of programs and initiatives of the Departments of Labor, Education, and Commerce.

LABOR MARKET STUDIES OF SPECIFIC GROUPS

The Employment and Training Administration continued to sponsor research throughout the reporting period which provided insight into the labor market experiences of various groups. These groups included dislocated workers, women, and others, such as minority men and the disabled.

Dislocated Workers

A Profile of Displaced Workers

An analysis of a special supplement to the Census Bureau's monthly Current Population Survey (CPS) conducted in January 1988 looked at worker displacement during a period of rapid job expansion.[24] It examined such issues as: (1) the demographic makeup of displaced workers during the period; (2) tenure on lost jobs; (3) lost jobs by industry and occupation; (4) displacement rates by industry; (5) displacement by geographic area; (6) reasons for displacement; (7) notification of layoffs; (8) receipt of unemployment insurance by displaced workers; and (9) the new jobs that dislocated workers found.

The supplement covers the five-year period from January 1983 to January 1988 and is nearly identical to surveys covering the January 1979-January 1984 and January 1981-January 1986 periods. The research was funded by ETA; the Department's Bureau of Labor Statistics was responsible for the analysis. Key findings of the survey as reported in an article in the *Monthly Labor Review* are as follows:

- Between January 1983 and 1988, 4.6 million workers (20 years old and older) were displaced from their jobs, compared with 5.1 million identified in each of the earlier surveys. In addition, because of the economic expansion which occurred during the 1983-1988 period, the proportion of the displaced workers who were working once again increased significantly when compared with 1984 survey data. Reemployment among women was up markedly, compared with previous surveys, reflecting the general increase in women's attachment to paid work as well as the overall improvement in the labor market.
- The demographic makeup of those displaced workers was similar to that found in the two previous surveys; nearly two-thirds were men and more than three-quarters were between the ages of 25 and 54.
- Of the 4.6 million displaced workers identified in the 1988 survey who, by definition, had three or more years of tenure on their lost job, about one-third had been at their jobs for three or four years; another one-third had five to nine years of tenure; and the remaining one-third had worked for their employers 10 or more years. This pattern was about the same as in the previous surveys.
- As was the case in previous surveys, the largest proportion of workers who had lost jobs was in the goods-producing industries. While the goods-producing industries together provided only about one-fourth of total employment, they accounted for more than half of the workers displaced over the five-year span. Manufacturing alone accounted for 1.8 million, or nearly four in 10 displaced workers.
- Operators, fabricators, and laborers were predominant among displaced workers in the earlier surveys, but their number dropped dramatically in the 1988 survey. In contrast, there was a slight increase in the number of workers reported as having lost technical, sales, and administrative support jobs.
- The East North Central region, which includes Michigan and other heavily industrialized States, experienced the largest number of displaced workers during the 1983-87 period—860,000. This figure is well below the region's

[24] Diane E. Herz, "Worker Displacement in a Period of Rapid Job Expansion: 1983–87," *Monthly Labor Review*, May 1990, pp. 21–33 (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics).

1.2 million workers who were displaced between 1979 and 1983.

- Plant closings and companies ceasing operations were much more common reasons for job loss during the period covered by the 1988 survey than they had been during the 1984 survey period.
- Even though nearly six in 10 displaced workers reported that they had received advance notice of a plant closing or had expected to be laid off during the period, only about two in 10 said that they received notice in writing.
- More than six in 10 displaced workers received unemployment insurance benefits after losing their jobs during the period, with about half of that group exhausting benefits.
- About half of reemployed workers held jobs in January 1988 which were in the same broad occupational categories as their previous jobs. In addition, while more than half of reemployed workers were working in jobs that paid either as much or more than those they had lost, nearly one in three had earnings which were 20 percent below the earnings of the lost jobs.

Advance Notice of Layoffs

With the 1988 passage of the Worker Adjustment and Retraining Notification Act (WARN—P.L. 100-379), employers, in most cases, are required to provide 60 days advance notice of layoffs or plant closings. A study of the impact of the advance notice provisions of the law indicates that written announcements of layoffs and plant closings increase the probability that displaced workers will obtain new positions without intervening joblessness.[25]

The study examines the extent to which advance notice eases the adjustment problems of workers displaced from their jobs due to plant closings and permanent layoffs. In conducting the study, researchers used a newly available data set—the Displaced Worker Supplement to the January 1988 Current Population Survey. These data contain information on the type and timing of notices, and on the duration of the initial spell of joblessness. An examination of the impact of advance notice on postdisplacement wages was also undertaken.

Major findings of the study include the following:

- Between 1983 and 1987 (prior to the enactment of WARN), only 15 percent of dislocated individuals received any formal advance notice of layoff, and only slightly more than five percent were provided with written announcements at least two months before job termination.
- Previous research overestimated the extent to which prenotification reduces postdisplacement joblessness because earlier data sets did not allow researchers to distinguish between "formal" and "informal" notice.
- Written announcements of layoffs and plant closings increase the probability that displaced workers will obtain new positions without intervening joblessness.
- Formal advance notice provided more than two months prior to displacement may substantially raise earnings in the new job, but there is no corresponding evidence of favorable effects for informally notified workers or for those obtaining written notification shortly before job termination dates.
- The impact of prior notification on postlayoff joblessness varies widely across population subgroups. Prior notice provides relatively greater benefits to heads of households, married persons, and dislocated workers residing in local labor markets with high rates of unemployment.

The report concludes that existing research and information obtained for this study lends provisional support for the benefits of the advance notice legislation passed in 1988.

Job Displacement and Labor Market Mobility

In a competitive economy which continually undergoes change, worker mobility is an important mechanism for labor market adjustment. A study examines the relationship between industrial and occupational mobility, reemployment, and earnings for workers displaced from jobs due to plant shutdowns or whose jobs are otherwise eliminated.[26] The study, which matches the January 1984, 1986, and 1988 Displaced Worker Surveys to the March Current Population Surveys in the same years, provides information about displaced workers and their families and compares the geographic migration rates of displaced and nondisplaced workers as well.

Key findings of the report include the following:

- Approximately one-half of displaced workers ultimately change industry or occupation.
- There is a strong positive association between industry and occupation change—workers who change one usually change the other as well. There is a positive, but much weaker, association between industry and occupation change and geographic mobility (displaced workers who

[25] Christopher Ruhm, *The Impact of Advance Notice Provisions on Postdisplacement Outcomes* (Boston, Mass.: Center for Applied Social Science/Institute for Employment Policy, Boston University, 1990).

[26] Michael Podgursky and Paul Swaim, *Job Displacement and Labor Market Mobility* (Amherst, Mass.: University of Massachusetts and U.S. Department of Agriculture, 1990).

move are somewhat more likely to change industry or occupation than those who do not move).

- Reemployment earnings as a percent of predisplacement earnings are substantially lower for workers reemployed in new industries or occupations.
- Skilled craft workers and semiskilled operatives have a stronger attachment to industry and occupation than do less skilled laborers.
- Male displaced workers have significantly higher rates of geographic mobility than do male nondisplaced workers.
- Family variables, such as whether a male worker's wife was also displaced, play an important role in family migration decisions.
- While the reemployment rate for some displaced workers who move tends to be higher than for displaced workers who do not move in the short-term, there are no significant long-term differences in reemployment rates.

The Role of Worker Displacement in Unemployment Patterns

A four-part study examining the problem of worker displacement and unemployment from several different perspectives provides a comprehensive view of the role of worker displacement in the evolution of unemployment patterns over the past 25 years.[27]

The first segment of the study measures the aggregate rate of worker displacement in manufacturing since the early 1960s. This part of the study uses data from the Longitudinal Research Employer Data File, County Business Patterns, and the Current Population Survey. Key findings show that:

- Employment has shifted away from manufacturing towards other sectors of the economy since the 1960s, with the pace of this decline intensifying in the 1970s and 1980s.
- The shift away from manufacturing as a source of employment has had a larger impact on less skilled workers. The current skill mix of employment in manufacturing has shifted in favor of workers who possess higher skill levels and more education.
- The distribution of employment has shifted towards larger firms in the service sector where establishments had traditionally been small, whereas the shift has been towards smaller establishments in the manufacturing sector where establishments have traditionally been large.
- Estimates indicate that rates of "job destruction" (which the study associates with worker displacement) are quite large over the period covered by the study.
- Fluctuations in job creation and job destruction are major factors affecting measured unemployment.

The second part of the study compares the relative importance of changes in worker displacement and changing durations of unemployment as contributors to fluctuations in aggregate unemployment since 1967. Findings indicate that:

- Increased displacement was an important cause for both cyclical and secular changes in unemployment over the 1970s and 1980s, although most of these fluctuations are explained by an increased incidence of very long spells of unemployment.
- While increased displacements were a primary cause of the unemployment problems of the late 1970s and early 1980s, a long-term decline in the rate at which the unemployed found jobs accounted for the lingering high rate of unemployment in the 1980s.

The third part of the study focuses on the role of import competition and immigration in generating worker displacement and wage inequality, stressing especially the effects of these factors on less-skilled and less-educated workers. The study found that:

- Increased trade and immigration amount to about one-fourth of the 1975-1985 growth in aggregate labor supply.
- Immigrants with few skills tend to be concentrated in manufacturing industries. Thus, an increase in manufactured imports had a negative impact on the employment of immigrants in this country.
- Immigrants comprised approximately 22 percent of male high school dropouts in the work force and 28 percent of the female high school dropouts in the work force.
- Evidence suggests that immigration had an important effect on relative wages and earning inequality during the 1980s.

The final part of the study uses data on workers' careers to calculate the wage, employment, and unemployment consequences of job displacement. It attempts to measure the cost of worker displacement by tracking the wage and employment experience of displaced workers over time. Significant findings include the following:

- In the short-term, annual earnings of typical blue-collar workers fall by over 40 percent following displacement.
- In the long run, workers' losses are mainly due to reduced wages, especially among experienced workers, those who are displaced from union jobs, and those who change occupation or industry after displacement.
- There is little evidence to suggest long-term "recovery" in earnings from the effects of job displacement.

[27] Robert H. Topel, Kevin M. Murphy, Steven J. Davis, and Lawrence F. Katz, *Sectoral Change and Worker Displacement* (Cambridge, Mass.: National Bureau of Economic Research, 1990).

Women

Trends in Women's Pay

During the 1960s and 1970s, the female/male pay ratio hovered around 59 percent. The decade of the 1980s, however, was marked by a significant increase in women's pay relative to that of men. In 1988, women working full-time, year-round earned 66 percent as much as men similarly employed. Today's young women are more likely than those before them to have the requisite characteristics for high-wage, high-growth jobs, according to a study which investigated the major factors which may influence future trends in women's pay.[28]

The study's three objectives were to: (1) determine what factors contributed to the relative improvement in women's pay in the 1980s; (2) analyze the potential of high-wage, high-growth jobs for increasing women's relative pay; and (3) provide an in-depth analysis of women's intermittent labor force participation (a factor thought to influence women's relative pay).

The study draws on several major data sources. Data from the University of Michigan's Panel Study of Income Dynamics were used to analyze the factors contributing to the increase in women's relative earnings in the 1980s; data from the Bureau of Labor Statistics and the Bureau of the Census were used to identify well-paid, high-growth occupations for women; and data from DOL's *Dictionary of Occupational Titles* and the 1980 Census were used to analyze the skill requirements of these well-paid, high-growth occupations.

In addition, two groups followed by the National Longitudinal Survey were used to assess the attributes of women in well-paid, high-growth occupations and to examine the earnings of female workers who work intermittently. The following are key findings of the study:

- A number of factors contributed to the rise in women's pay in the 1980s, including: (1) a decline in labor market discrimination against women; (2) a rise in the relative quality of female labor; and (3) a convergence in the industrial distribution of male and female workers.
- High-wage, high-growth job opportunities for women are highly concentrated in the managerial, professional, and technical fields. The five areas of work expected to provide the most opportunities through the year 2000 are: health, computers, engineering, teaching, and general management. The skills required for jobs in these fields are considerably higher than the skills required for the average job in today's economy. Women aged 35 to 41 who currently hold these jobs have significantly more education and especially more "wage-enhancing" education than do other working women in this age group.
- Women in high-wage, high-growth occupations have: (1) spent more years in the labor force; (2) are more likely to work full-time; and (3) are more likely to be single and without children than other women. Young women today are more likely to have these characteristics than young women in earlier periods.
- Over 85 percent of the female work force between the ages of 35 and 41 have worked intermittently since leaving school. These women earn 50 percent less than the small minority of women in this age group who have worked continuously.
- About 60 percent of this pay differential is due to differences in measured characteristics, such as amount of education, work experience, and number of children. Women who work continuously have 16 years of education and 16 years of work experience on average. Intermittent workers have only 13 years of education and 12 years of work experience on average. Half the women who work continuously do not have children; only 12 percent of other women in the 35-41 age group are childless.
- However, women who work continuously earn significantly more than those who work intermittently even after controlling for the measured characteristics. This suggests that differences in unmeasured characteristics explain part of the pay disparity. (Characteristics not measured include travel time to work, subjects studied in high school and college, part-time status.) Since most men work continuously and most women work intermittently, this also suggests that part of the sex pay disparity is due to differences in unmeasured characteristics as well.

The study points out that because the decline in labor market discrimination against women is expected to continue, along with a rise in the relative quality of female labor and a convergence in the industrial distribution of male and female workers, the prospects for further improvements in women's relative pay are quite good.

Other Targeted Studies

Unemployment Among Minority Men

Fewer nonwhites than whites seek employment and, among those who enter the labor market, fewer nonwhites than whites find employment, according to a study of joblessness among minority men.[29] Based on research on

[28] Elaine Sorensen, *Women's Relative Pay: The Factors That Shape Current and Future Trends* (Washington, D.C.: The Urban Institute, 1989).

[29] Ronald D'Amico, *The Extent and Pattern of Joblessness Among Minority Men* (Menlo Park, Calif.: SRI International, 1989).

the labor market performance of minority men, the report documents and analyzes the disparity in the labor market performance of black and Hispanic men vis-a-vis white men. The report focuses specifically on labor force participation, unemployment, and hours of work. Findings from the report indicate that:

- Differences in employment experience between races is smaller among older and better educated groups.
- Among men, ages 18–64 who are not in school, the proportion of blacks not in the labor force is almost twice as large as it is for whites (19 percent for black men, 11 percent for white men).
- The white/nonwhite gap in youth unemployment, which was five to eight percentage points during the 1950s, narrowed during the 1960s, but rose to 10 percentage points during the 1970s.
- While race is an important factor related to unemployment, hours worked, and labor force participation, especially for older male workers, schooling is another important factor among younger (ages 18–34) and mid-age (ages 34–49) male workers of all races. Indeed, the report indicates that high school drop-out status is a particularly significant drawback to successful labor market performance for members of these two age groups.
- Much of the observed difference between Hispanics and non-Hispanics in joblessness and hours of work is attributable to the gap in schooling. However, for middle-age and older Mexican men, their disadvantage in labor market experience remains even after schooling is taken into account.
- The importance of schooling is further attested to by an analysis of school-to-work transition. Men who leave high school with higher achievement test scores were found to have an easier time finding a job. These individuals also work, on average, a greater number of hours per year.
- The school-to-work transition analysis included in the report indicates early emergence of occupational segmentation by race. The study found that black high school graduates are much more likely to be in service occupations and to enlist in the military and are less likely to be in skilled or semiskilled blue-collar occupations than their white counterparts.

Preparing Handicapped Youth for Employment

Approximately 4.4 million handicapped students are served by special education programs in our Nation's public school systems. Educators believe that the education of handicapped children has improved since the passage of the "Education for All Handicapped Children Act" (P.L. 94-142) in 1975, according to a report which summarizes the findings of a survey of public school educators, handicapped students, and parents of handicapped students.[30]

The survey focused on how well our Nation's special education system serves the needs of handicapped students. Key findings of the report include the following:

- The majority of parents of handicapped children surveyed (77 percent) report that they are satisfied with the special education system. However, when asked specifically about various services and programs, the proportion of satisfied parents decreases to varying extents.
- Over half (56 percent) of the parents surveyed reported that they "had to work hard" to get the education that their children needed. In fact, 36 percent of parents surveyed had considered filing complaints against schools, and 10 percent had actually done so.
- Thirteen years after the passage of P.L. 94-142, the majority of both principals and teachers have not had adequate training in special education, and many are not very confident about making decisions concerning handicapped children.
- A significant number of educators (38 percent of regular classroom teachers and 30 percent of District Directors of Special Education) report that there are handicapped students who are either not identified as handicapped or not receiving services.
- Most parents give their children's schools positive ratings on key criteria, including: (1) attitudes of educators toward parents of handicapped children; (2) physical access to school facilities; and (3) efforts to integrate handicapped and nonhandicapped children into school activities.
- Most handicapped students who need special services receive at least some of them, and their parents are generally satisfied with the services.
- A large majority of parents report participating in the process of Individualized Education Plans, which structure educational services according to handicapped children's individual needs. For a majority of handicapped students aged 17 or over, however, transition plans designed to assist them in moving from school to work have not been made part of the plans. In addition, less than half of the students aged 17 and over have received counseling concerning employment or future educational plans.

The survey found that preparing handicapped students for work or further study beyond high school received the lowest ratings from both parents and educators. Only 11 percent of parents and 15 percent of educators said that the schools do an "excellent" job in preparing students for jobs after high school. Only 15 percent of parents and

[30] Louis Harris and Associates, *A Report Card on Special Education: International Center for the Disabled Survey III* (New York, N.Y.: International Center for the Disabled, 1989).

educators say that the schools do an "excellent" job in preparing students for education beyond high school.

Education Levels and Income

Despite the economic expansion that increased the number of jobs during the 1980s, one study concluded that the economy did not appear to generate a significant number of *high-paying* jobs. In fact, this research suggested that real wages stagnated from the mid-1970s through the mid-1980s, based on an analysis of changes in wage rates during the period.[31]

The researchers investigated the significance of the pay inequality in the early 1980s which resulted from a decline in manufacturing employment and an increase in service sector jobs that require higher levels of education for the same or less pay than manufacturing jobs. They also estimated the changes in the ability of the economy to generate well-paying jobs for persons with limited education. The research, which analyzed data from the Current Population Surveys for May 1973, May 1979, and March 1987, attempted to answer three basic questions:

- Is the inequality among hourly wages becoming greater?
- To what extent are the changes in inequality associated with widening gaps between educational groups and increased inequality within educational groups?
- How do the patterns of wage inequality vary by the age and sex groupings of workers?

Major findings of the study include the following:

- From 1973 through 1987, real compensation per hour rose only about five percent. In the context of stagnant wages, an increase in inequality can cause some workers to experience a declining standard of living.
- The amount of schooling completed by the labor force increased dramatically from 1973 to 1987. The proportion of the labor force with less than a high school degree fell by half—from 29 percent in 1973 to less than 14 percent in 1987.
- The rapid decline in the share of employed workers who are high school dropouts resulted partly from divergent trends in labor force participation and unemployment, but mainly from reductions in the dropout share of the total population.
- Wages of more-educated workers rose faster than the wages of less-educated workers during the period.
- High school dropouts generally became more stratified at the bottom of the wage distribution over the 1973-1987 period. As a result, not only has the wage gap between dropouts and other workers widened, but significantly fewer dropouts have wages that overlap with the wages of other workers.
- In the case of college-educated groups, wage levels increased for young men, but declined substantially for all other groups. The primary reason for the decline was the increasing tendency for college-educated workers to overlap with post-college workers. Among women, the relative wage of those with a bachelor's degree rose while the relative wage of women with post-college education declined. The increased overlap between these two groups probably caused the observed decline in wage levels of female college graduates.

The study suggests that policymakers should focus on the pattern of wage developments within education groups at least as much as on widening wage differentials between groups.

Self-Employment

Self-employment is emerging as an increasingly important tool for helping low-income and unemployed people gain economic self-sufficiency. A study of the viability of self-employment for low-income and unemployed individuals—called FIRMSTART—conducted by Massachusetts, Michigan, and New Jersey explores the practices of government-sponsored entrepreneurship in France and Great Britain and pilot programs of private nonprofit organizations in the United States.[32]

The study report outlines the elements of a model public self-employment development program (assessment, income and personal support, training, financing, technical support, and community support) and analyzes over 30 pieces of Federal legislation (governing income support, business support programs, employment and training, and special programs for target groups) to identify how self-employment is constrained or supported by the current U.S. structure.

Inspired by programs in European countries where public investment in self-employment for unemployed individuals has been shown to be a route to self-sufficiency for economically at-risk individuals, the FIRMSTART research project examined seven unemployed or low-income populations who could be helped through a self-employment strategy. These population groups were: (1) recipients of Aid to Families with Dependent Children; (2) at-risk youth; (3) dislocated workers; (4) older workers; (5) persons with disabilities; (6) refugees; and (7) unemployment insurance recipients.

The report provides a distribution of nonagricultural self-employed people by industry and notes that over

[31] Robert I. Lerman and Harold Salzman, *Shifts in Income Segmentation by Education Level* (Boston, Mass.: Boston University Center for Applied Social Science and the American University Department of Economics, 1989).

[32] Christine H. Green, *FIRMSTART: An Examination of Self-Employment* (Washington, D.C.: Corporation for Economic Development, 1989).

two-fifths of all self-employed people work in the service industry, while another one-fifth work in the retail trade industry (see Chart 5).

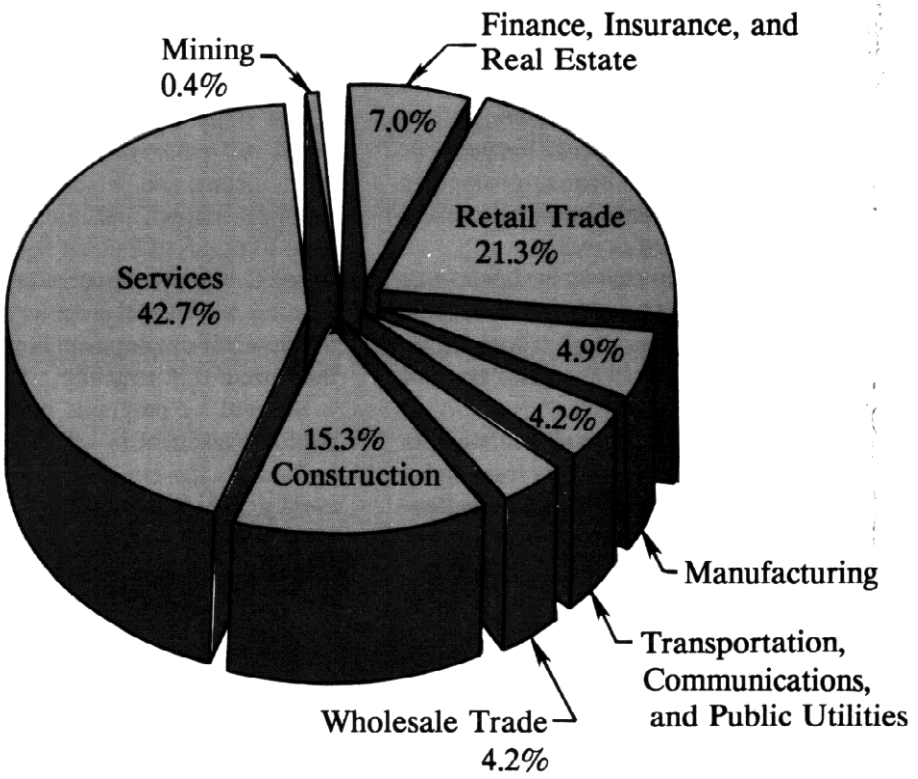
The report examines policy and design aspects of European and U.S. programs to promote self-employment. It also analyzes Federal legislation in an effort to identify barriers to self-employment for low-income people as well as opportunities for State and Federal program development. The report suggests that:

- Adding a publicly-supported self-employment option for low-income entrepreneurs to the U.S. training and employment system could result in one to three percent of those on public assistance moving off the rolls in the early stages and up to five percent of these individuals moving off public assistance when a fully developed program becomes available.
- Creating new financing strategies, new affordable space, and new access to professional services for self-employed, low-income, and unemployed individuals will provide benefits to the general population of similar businesses in the United States.
- Skills gained through self-employment are an investment in human potential that can have a major impact on individuals, families, and society as a whole.

The report also notes some concerns associated with self-employment efforts for low-income and unemployed individuals. These concerns are as follows:

- Evidence exists that self-employed people earn less than their wage and salary counterparts. In addition, self-employed people usually must purchase their own health, life, liability, and disability insurance and provide for their own retirement. These costs decrease net earnings.
- Any individual takes on a degree of risk when becoming self-employed. Assuming debt or other financial

Chart 5. Nonagricultural Self-Employment by Industry



Source: Small Business Administration, *The State of Small Business*, 1986, as noted in *FIRMSTART: An Examination of Self Employment.*

commitments, such as equipment or space leasing, can have long-term consequences if the proprietor falls upon hard times. Low-income individuals can be even more vulnerable than the general population of self-employed individuals if their business falters because they may not have adequate savings to carry them through a period of low receipts.

- Businesses started by low-income entrepreneurs may displace other small businesses. Like other policies which help people overcome a disadvantage, a public self-employment development program must find a balance that ensures citizen and community support while assisting those in need to become self-sufficient.

The three States participating in FIRMSTART used the research project as an opportunity to develop a strategy for identifying State resources for self-employment and for testing those resources against a program model.

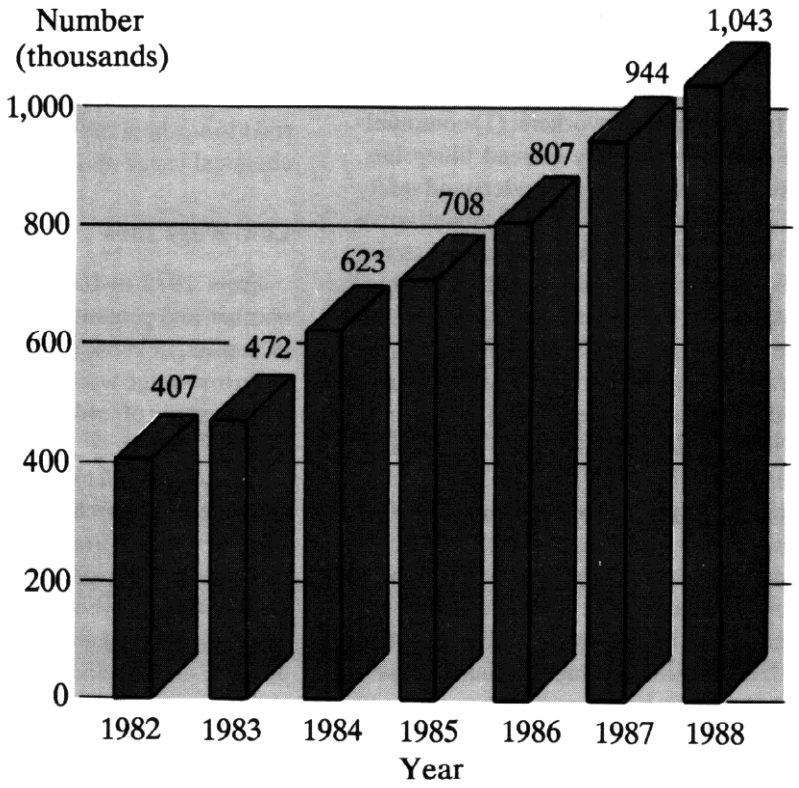
Entering Mainstream Employment Through Temporary Jobs

The temporary help industry (THI) represents an important source of assistance to members of groups that have been targeted by Federal laws and regulations as needing special assistance to enter the labor market, according to a study of that industry's impact on the labor market.[33] In fact, from 1982 through 1988, the number of people employed in the temporary help industry more than doubled (see Chart 6).

The study focuses on occupational trends in the temporary help industry, pay and benefits, recruiting, and retention, as well as the industry's ability to provide employ-

[33] Seymour L. Wolfbein, *The Temporary Help Supply Industry in the U.S.A.* (Philadelphia, Pa.: Jewish Employment and Vocational Service, 1989).

Chart 6. From 1982 Through 1988 Employment in the Temporary Help Industry Increased More Than Two and One-Half Times



Source: U.S. Department of Labor, Bureau of Labor Statistics, as noted in *The Temporary Help Supply Industry in the U.S.A.*

ment for several targeted groups. The project's report notes that employment records and interviews with temporary help officials and clients indicate that targeted groups (older persons, the disabled, ex-offenders, individuals with limited formal education, and recipients of Aid to Families with Dependent Children) were being successfully placed in temporary jobs.

The report points out that the success of the temporary placements appears to result primarily from the long-term personal relationships which THI has with employers. This positive relationship sometimes results in job opportunities that individuals from these groups would not have had if they had applied on their own. Many temporary help companies also provide limited job training in clerical/computer skills to help clients meet employer's needs.

Literacy Requirements of Maintenance Workers

Productivity and job advancement in the building maintenance industry are impeded by a lack of workplace competencies, according to a study of the literacy requirements of maintenance workers in multifamily apartment buildings.[34] The study—a national literacy audit of maintenance worker jobs in multifamily complexes—was based on mail surveys, site visits, and telephone interviews in selected field locations.

The study found the following workplace competencies to be needed by maintenance workers: (1) communication skills; (2) document literacy to read blueprints, meters, gauges, etc; (3) prose literacy to understand safety instructions and contractor proposals; (4) quantitative literacy to deal with such items as time and material budgets; (5) problem-solving abilities; and (6) higher-order thinking skills for functions such as inventory control, preventive maintenance, and evaluating proposals.

Working with two national property management firms to collect data, the researchers used mail surveys to identify job tasks to be studied and sites to be included for visits and telephone interviews.

Results of 82 mail surveys revealed concerns by maintenance supervisors about tasks related to making electrical repairs, maintaining heating and air conditioning units, and handling chemicals. The results also showed that job advancement was related to the ability to solicit and evaluate bids from outside contractors, handle paperwork, and maintain budgets. Visits were then made to 10 property management sites, and maintenance supervisors and workers were interviewed in an attempt to identify the types of basic skills involved in completing job tasks. Job materials such as maintenance manuals and documents were collected and reviewed.

Analysis of the data collected was both quantitative and descriptive. It showed that:

- Maintenance workers need a diverse range of reading, writing, computation, and visualization skills to perform successfully and be promoted. Most job tasks require all of these skills, as well as the integration of information from a number of different sources.
- Geographic location does not appear to affect overall literacy demands of maintenance workers. Rather, the age of a building appears to have the most influence on literacy demands. Maintenance of old buildings requires the installation of new or nonstandard parts—which challenges the problem-solving and basic skills abilities of the workers.
- Management company policies and procedures differ considerably and affect literacy demands. For example, the authority to purchase materials and the responsibility for inventory control and preventive maintenance varied significantly between the two firms studied. In addition, training practices can increase literacy demands because of the requirement to read and understand technical material.
- Workers with low basic skill levels are less productive according to the workers and supervisors interviewed. Low basic skill levels also increase the costs and safety risks to workers and residents, particularly with respect to chemical usage and electrical repairs.

Low-Wage Jobs

From 1975 to 1984, some research suggests that the number and proportion of adults working at low wages increased. In 1984, about one quarter of all adult workers were low-wage workers ($5.30 or less per hour), according to a study of low-wage jobs and workers in the United States.[35]

The study used two nationally representative data sets and several research techniques in an attempt to find out: (1) how many workers are in low-wage jobs; (2) whether the number and proportion of low-wage workers are increasing; (3) whether the number of the lowest-wage workers is increasing; (4) who the workers in low-wage jobs are and whether their characteristics have changed over time; (5) if low-wage work is unequally distributed by gender, race-ethnicity, and family status; (6) what the characteristics of low-wage jobs are; (7) what factors

[34] Patricia Gold and Arnold Packer, *Literacy Audit of Maintenance Workers* (Alexandria, Va.: Interactive Training Incorporated, 1990).

[35] Heidi Hartmann, Roberta Spalter-Roth, et al., *Low-Wage Jobs and Workers: Trends and Options for Change* (Washington, D.C.: Institute for Women's Policy Research for the Displaced Homemakers Network, 1989).

increase or decrease the likelihood of low-wage work for different gender and race-ethnic groups in the population; (8) what the nature is of the shifts between low-wage work, welfare, unemployment, out-of-the-labor-force status, and higher-wage work; and (9) what the relationship is of low-wage work to family poverty status and welfare receipt, and how this has changed over time.

The data sets used were the Panel Study of Income Dynamics (PSID) and the Survey of Income and Program Participation (SIPP) from the U.S. Bureau of the Census. The PSID is a longitudinal survey conducted by the Institute for Social Research at the University of Michigan, which includes a sample of approximately 7,000 families. The SIPP, designed to provide comprehensive information on the changing economic situation of households and persons in the United States, includes approximately 64,000 individuals. Interviews are conducted of all SIPP households every four months to obtain monthly (and in some cases weekly) information. Key findings of the research include the following:

- The increase in low-wage work occurred disproportionately among women, adults responsible for children (especially mothers), and blacks.
- Holding constant human capital and job factors, low-wage work was still unequally distributed by gender and race-ethnic origin. Other things being equal, women and minority workers experienced a greater risk of low-wage work.
- More than four out of 10 adult low-wage workers lived in households with children and more than one-third were single earners solely responsible for their household's economic well-being.
- Human capital factors were less significant for minority and female low-wage workers than for white males in determining their wages.
- Many low-wage workers worked full-time, full-year; at the same time, many low-wage jobs were transitory.
- Low-wage employment was a highly variable experience (depending upon both what preceded and followed the "spell" of low-wage employment), and the experience differed by race, gender, and marital/family status.
- Low-wage work was less effective in lifting families out of poverty in 1984 than in 1975, in part because the average wage of the low-wage worker had not kept up with inflation. The risk of poverty was greater for those experiencing particular types of low-wage employment (such as seasonal and temporary) and for certain other groups.
- Low-wage work and welfare were not mutually exclusive activities; a substantial minority of those "leaving" welfare for low-wage employment were also already employed, and/or had recent work experience, while a substantial number of those experiencing a spell of low-wage employment continued to receive welfare.
- For many of those receiving welfare who entered low-wage employment, a spell of low-wage employment did not result in achieving either higher wage employment or economic self-sufficiency.

PROGRAM DEVELOPMENT AND IMPROVEMENT

Throughout Program Years 1988 and 1989, the Department sponsored extensive research in a variety of areas which relate to ETA program operations. These included studies relating to improvements in the Employment Service; enhancement of Job Corps instruction; methods to more effectively link job training and economic development and to otherwise better manage and coordinate JTPA programs; and several research initiatives designed to provide information about ways to improve the Nation's unemployment insurance system.

The Employment Service/Job Service

Improving Job Service Effectiveness

To identify ways in which the public Employment Service (often called the Job Service) can better serve the public, the Department asked members of the Interstate Conference of Employment Security Agencies (ICESA) to identify innovative activities of the nationwide system. From the 176 nominations received from 47 jurisdictions (States, cities, and counties), six States (Iowa, New Jersey, South Carolina, Texas, Vermont, and Washington) were selected for visits in an effort to gather in-depth information about practices. The findings from this research[36] are organized in four strategic categories in which the States have chosen to develop services.

Increasing Labor Productivity by Adding Information to the Job Match Process. Some Job Service offices have taken a more active approach to matching qualifications of jobseekers with job vacancies. These offices not only review resume information, but they supplement that information with testing, group counseling, and vocational assessment to help applicants establish career development plans.

Reducing Unemployment by Further Developing Applicants' Job-Seeking Skills. A number of Job Service offices have gone beyond the traditional labor exchange function and are providing training to jobseekers in self-help techniques. This training equips jobseekers to respond more effectively to job vacancies through enhanced self-marketing skills such as resume development

[36] Marc Bendick, Jr., *Building a Job Service for the Year 2000: Innovative State Practices* (Washington, D.C.: Interstate Conference of Employment Security Agencies, 1989).

and effective interviewing techniques. In Texas, where skill development is provided in group sessions, substantial improvements in placement rates of trainees has occurred.

Recruiting Workers for a Labor-Short Economy Through Service Accessibility. Some Job Service offices adapted their methods of matching workers with vacancies to better reflect the needs of a labor-short economy. In certain areas in Washington State, for example, Job Service staff were stationed at public assistance offices, industrial plants experiencing large-scale layoffs, service centers for the homeless, and rehabilitation centers for the disabled. Some Job Services tailored their assistance to the needs of specific client groups. For example, in Iowa some local offices invited the staff of client-based agencies (such as the agency on the aging and the bureau for refugees) to work in Job Service offices as specialized placement interviewers.

Increasing the Efficiency of Public Employment and Training Programs by Participating in Local Delivery Systems. The study reports that some Job Service offices are becoming partners with local service delivery systems at the planning and operational levels in an effort to provide better services. These partnerships are evident in Iowa and Washington where staff and facilities are colocated with other human service agencies. In South Carolina, Texas, and Vermont, client services are available through the State employment and training system. In New Jersey, coordination between the Job Service and JTPA agencies is being achieved by joint local planning, common advisory committees, and interagency operating agreements.

Automated Interstate Job-Finding Programs

The Wagner-Peyser Act requires the Department of Labor to establish a system for matching available workers with job openings in other States. The Interstate Job Bank (IJB) was designed to serve employers when qualified applicants are not available locally and to serve applicants who cannot be placed locally or who are willing to accept employment elsewhere.

As an operational system, this interstate clearance function has undergone several transformations over the years. In 1983, the Department initiated a series of improvements because the system had limited use. Although the 1983 improvements were successful in increasing the number of job orders in the automated system, a low level of referrals and placements in the IJB continued to be a problem.

The situation prompted the Department to sponsor an evaluation of automated interstate job-finding programs, a project designed to assess existing public and private programs and determine their potential use as alternative approaches for fulfilling the legislative requirements for a system of clearing labor among the States.[37]

The first goal of the evaluation was to examine various aspects of the IJB, and the project's report makes several observations about the existing system, including:

- A number of States tend to deemphasize IJB job order submittals because they do not want out-of-State workers to compete for their jobs, particularly in areas of high unemployment. This attitude may result in a lack of promotion of the system to local Employment Service staff, applicants, and employers, and the use of overly restrictive criteria in submitting job orders to the IJB.
- Local Employment Service staff are often reluctant to submit job orders to the IJB because they feel they have too little time to deal with applicants referred from other States in response to the job orders.
- Local staff generally want to give priority to local applicants, rather than listing job orders with the IJB and exposing the jobs to out-of-State applicants, and they do not always inform employers about the option of giving job orders nationwide exposure.
- The current procedures used by most States to transmit and/or receive interstate job order information are not sufficiently automated. As a result, there are often delays in submitting job order information to the IJB and in the dissemination of job order information by the IJB to the States.

The study examines alternative approaches to the existing system: (1) multistate automated systems involving contiguous States, including the Multistate Job Bank Pilot Project which was initiated by the Department as the study was being developed; (2) single-State systems that could be expanded to serve multistate areas; and (3) private sector programs.

The evaluation concludes that, at the current time, there is no single existing program which, by itself, could be used as a basis for meeting the requirements for an effective interstate clearance system. The study identifies model systems and practices which might be used to improve individual components of the clearance system. However, many of these programs focus primarily on intrastate job-finding activities. The principal policy options identified in the evaluation include:

- Improving the sharing of job order information among States;
- Improving data exchange in the interstate clearance system;

[37] Philip Richardson and Joseph Frees, *Evaluation of Existing Automated Interstate Job Finding Programs* (Silver Spring, Md.: Macro Systems, 1989).

- Improving usage of the system by jobseekers through automated self-search and self-referral systems;
- Enhancing the interstate clearance system through automated self-application systems and enhanced applicant data banks; and
- Improving employer usage of the interstate clearance system through automated self-selection systems.

Employment Testing

The General Aptitude Test Battery (GATB), an employment aptitude test, has been used by State Employment Service offices to match jobseekers with private and public sector employers. In recent years, the Department encouraged States to experiment with a test-based referral system known as the Validity Generalization General Aptitude Test Battery (VG-GATB) Referral System. The new procedure used the GATB to assess an applicant's potential for occupational success in virtually any of the 12,000 jobs described in the *Dictionary of Occupational Titles*.

A study was undertaken in 1987 by a committee of experts established within the National Research Council of the National Academy of Sciences to review the fairness of the GATB, the VG approach, and the within-group scoring adjustment procedure of the GATB in use at the time.[38]

The researchers found the GATB to be average in terms of predictive validity and test reliability. The committee also found the VG procedure of generalizing to many occupations to be generally acceptable, and recommended continued use of within-group scoring.

(Note: The Civil Rights Act of 1991 prohibits the use of within-group conversion scoring. In December 1991, the Department announced a policy decision directing ETA contractors, grantees, and programs under the National Apprenticeship Act to terminate the use of within-group scoring in making selection and job referral decisions. At the same time, the Department announced it will conduct a multiyear research effort designed to make the GATB as accurate a predictor as can be developed with existing research techniques and a fair instrument for assessing all workers' capabilities.)

Job Training Partnership Act

Linking Job Training and Economic Development

In many cases, Federal programs which support job training for unemployed and other disadvantaged workers have overlooked the importance of economic development strategies. Indeed, training, education, and economic development programs have traditionally operated along separate tracks.

A study examined six cases where job training and economic development have been successfully linked through an interorganizational arrangement and assessed why these initiatives worked.[39] Findings indicate that in any local setting such arrangements among training, education, and economic development programs may represent an initial step toward collaboration which can result in job and training opportunities for disadvantaged persons.

The study's report points out that there are *perceived* advantages and disadvantages of linking job training with job creation initiatives. Proponents for linking the two argue that for disadvantaged, hard-to-employ individuals, connecting training with job creation initiatives provides access to jobs in growing industries and growing occupations. Thus, job training programs will experience higher rates of success.

Opponents argue that conflicting objectives of job training and job creation make it difficult for either to benefit from collaboration. They contend that the two are not compatible because job training is intended to help hard-to-employ people find entry-level jobs, while job creation programs create jobs that often require higher level skills than these individuals possess.

The report points out that although this debate cannot be resolved (i.e., coordination may be beneficial under certain circumstances but not others), studies of successful linkages between job training and economic development can be useful in finding ways of using joint resources more effectively.

Data for the study were collected at six sites during the first half of 1989. The sites studied were: (1) Southern Arizona (Pima County Community Services Department); (2) Hartford and Cecil Counties, Md. (Susquehanna Region PIC, Inc.); (3) Chester County, Pa. (Chester County Partnership for Economic Development, Inc.); (4) Five counties surrounding Jacksonville, Fla. (Northeast Florida PIC, Inc.); (5) Grand Rapids, Mich. area (Greater Grand Rapids Economic Development Team); and (6) Seattle-King County, Wash. (Seattle-King County Economic Development Council).

Each case study included a review of the economic and institutional setting in the area, an investigation of local economic development and job training activities that are attributable to linkages among organizations, and a re-

[38] John A. Hartigan and Alexandra K. Wigdor (Editors), *Fairness in Employment Testing: Validity Generalization, Minority Issues, and the General Aptitude Test Battery* (Washington, D.C.: National Research Council, 1989).

[39] Robert K. Yin, Peter G. Bateman, et al., *Interorganizational Partnerships in Local Job Creation and Job Training Efforts: Six Case Studies* (Washington, D.C.: Cosmos Corporation, 1989).

view of how linkages among agencies improved program effectiveness.

The study concluded that:

- The interorganizational arrangements resulted from collaboration among *existing* organizations and did not require the formation of a *new* organization specifically charged with the coordinating role.
- The arrangements helped to produce exemplary job creation and job training outcomes.
- The arrangements also produced other benefits, providing a long-term capability for dealing with different phases of economic development, including key activities which may have to precede job creation efforts.
- These arrangements worked primarily as a result of strong informal networks rather than formal interorganizational agreements.

Using Volunteers in the JTPA System

Mentoring, literacy tutoring, and managerial and administrative assistance are the most promising areas for volunteer involvement in JTPA, according to a study that assessed the potential effect of using volunteers to enhance JTPA services.[40]

Voluntarism has become an increasingly important policy issue because of the impact of the Federal deficit on funding for social programs, and disadvantaged youths' needs for personal contact with adults who can serve as positive role models. The DOL-sponsored study consists of a literature review and a series of informal interviews with individuals representing national agencies, associations, and selected JTPA Service Delivery Areas.

Findings of the study indicate that:

- The types of volunteer services most relevant for JTPA are literacy tutoring, service as mentors, and managerial/administrative assistance. (Each type of service is discussed in the study report.)
- The business community, workplaces, and community organizations have proven to be the best sources of volunteers for SDAs. (Methods of recruitment, as well as sources, are covered in the report.)
- The effectiveness of volunteers can be maximized by:
  - — Having a clear understanding in advance of the time commitment expected.
  - — Ensuring that volunteers will adhere to performance standards.
  - — Using literacy tutors as a supplement to regular staff working with young students or for adults with no reading ability.
  - — Using administrative or management volunteers for specific programmatic purposes rather than for routine office activities.
- There are costs associated with using volunteers in JTPA—especially in recruiting, training, supervision, and monitoring. Cost estimates are as high as $800 per volunteer.
- Barriers to the use of volunteers include employee concerns about job displacement and liability. There do not appear to be special legal problems connected with the use of volunteers.

The report includes both short- and long-term recommendations for the Department to consider in promoting the use of volunteers in JTPA.

JTPA State Management

JTPA transformed the role of the States in administering job training systems and gave them major policy management responsibilities in guiding the way in which services are delivered. A study designed to learn more about how States have used the new policy and management tools available to them found that there is no single organizational arrangement or combination of management practices which works best.[41]

In studying the State role under JTPA, the researchers analyzed how States are organized to carry out their administrative responsibilities under the Act, how they articulate policy priorities, and how they influence program quality. Specifically, the study sought to identify effective and efficient State JTPA management practices and policy processes. Management practices included organizational arrangements, planning, coordination, monitoring, performance rewards, audit rules, management information systems, training and technical assistance, and communication between State and local officials.

Information from States was obtained in two ways. Seven states were selected for a case-study analysis in an effort to gain an in-depth understanding of the dynamics of State administration and its influence on local operations. In these States, the researchers studied how factors such as the respective authorities of the Governor and State legislature, traditional structures for State/local relations, and assignment of responsibilities within executive branch agencies influence the way in which JTPA is administered. States were selected for case study to reflect the range of different governance, politics, size,

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[40] Burt Barnow and Regina Yudd, *The Potential Role of Voluntarism in JTPA* (Washington D.C.: The Urban Institute, 1989).

[41] Jose R. Figueroa, Evelyn Ganzglass, and Lorraine Amico, *Study of the State Management of the Job Training Partnership Act* (Washington, D.C.: National Governors' Association, 1989).

and other circumstances which influence how JTPA is implemented.[42]

A mail survey of the remaining 43 States and seven territories was conducted in August 1987 to obtain similar, but more limited, information. Thirty-six States, the District of Columbia, and the Virgin Islands responded.

Key findings of the study indicate that:

- The JTPA objective of creating a decentralized performance-driven system has been accomplished. Using Federally specified performance standards as a base, States have implemented incentives and sanctions which focus the management of JTPA programs on improving participant outcomes.
- Services to the hard-to-serve were emphasized in all aspects of the Title II-A and Employment Service programs, with seven out of 10 States using a combination of multiple JTPA resources to support the programs.
- States have created special organizational arrangements to overcome limited administrative resources. For instance, small States had to resort to special administrative arrangements to supplement limited funds available to them for administrative purposes.
- For the most part, States have tended to use a similar proportion of resources for the same management functions. Small States, however, spent a larger proportion of their budget for planning and policy activities and management information systems than did larger States. On the other hand, very large States, on average, spent a larger proportion of their resources on field operations than did smaller States.
- The role of the State Job Training Coordinating Councils in implementing and promoting policies varied considerably. Three-quarters of the States reported that SJTCCs had a substantial impact on at least some aspects of State policy development for JTPA. By far, their greatest influence was reported in State incentive policies for exceeding performance standards.
- Nine out of 10 States reported substantial involvement of SDAs and PICs in at least several areas of policy development, especially the development of State incentive policies.

Improving JTPA Training

The purpose of JTPA Title II-A training is to provide economically disadvantaged individuals with skills which improve both their immediate post-program employment and their long-term employment potential. In an effort to assess the quality of the training provided under JTPA, the Department sponsored a study which investigated program designs in 15 randomly-selected Service Delivery Areas during PY 1988 and reviewed the Title II-A training received by adult participants in 43 different occupational training programs.[43]

The objectives of the study were to identify the strengths and weaknesses of current JTPA training programs and policies, and to make recommendations about how to strengthen the quality of JTPA programs and outcomes at the national, State, and SDA levels. Principal findings were that:

- SDAs do not often establish formal target groups within the JTPA-eligible population. When client targeting goals do exist, SDAs most often designate at-risk youth.
- Client assessment procedures were subjective in one-third of the SDAs studied, consisting of brief face-to-face interviews with SDA intake counselors. Formal testing in these SDAs was usually limited to a short reading test to fulfill the Federal reporting requirement, and its results were not used by the counselors. Nearly half of the SDAs studied used objective assessments of basic skills to make appropriate referrals; however, few gave applicants the opportunity to explore occupational interests or aptitudes during the assessment process.
- Most SDAs provided a wide range of services, including basic skills training, classroom occupational skills training, on-the-job skills training, and preemployment training. However, the full range of services was not always available to hard-to-serve clients and the lack of supportive services made it difficult for many people to participate in training.
- Only one-third of the SDAs studied were actively involved in designing classroom training programs for JTPA participants. In the remaining two-thirds of the SDAs, the primary mode of operating occupational classroom training was individual referral to existing training programs.
- Classroom training programs in the SDAs studied appeared strong in terms of several criteria of the study's quality training model. Occupational relevance was high in two-thirds of the programs observed. On the other hand, many of the programs were weak in terms of clarity of objectives and integration of basic and occupational skills. Also, despite the basic skill deficiencies of many JTPA participants, few occupational programs studied included a significant basic skills component.
- SDAs varied widely in their views of the purpose of on-the-job training (OJT). While all SDAs studied had strong expectations that OJT jobs would continue after the OJT

[42] The seven States studied were: Vermont, Nebraska, Idaho, Maryland, Arizona, Georgia, and Illinois.

[43] Deborah Kogan et al., *Improving the Quality of Training Under JTPA: Summary of Findings* (Oakland, Calif.: Berkeley Planning Associates and SRI International, 1990).

contracts ended, one-third of the SDAs did not view the purpose of OJT as providing training in new skills.

- About 30 percent of the OJT contracts studied were for jobs where the participant received little interactive training—learning few if any transferable skills. In SDAs that monitored OJT contracts during the training period, 60 percent provided high quality training, compared to only 10 percent in the SDAs that did not monitor OJT contracts.

The study makes the following recommendations concerning the Federal and State roles in improving the quality of JTPA training:

- Help clarify the purpose of on-the-job training.
- Clarify program priorities regarding the emphasis to be placed on serving hard-to-serve individuals through the JTPA program.
- Promote the design of service packages which are responsive to the needs of hard-to-serve groups.
- Promote integrated linkages between JTPA training and work programs for welfare recipients.

The report also makes the following recommendations regarding the SDA and service provider roles in improving training quality:

- Assess basic skills using detailed objective measures during intake into JTPA services.
- Assess vocational interest and vocational aptitudes and help applicants explore career options.
- Provide preemployment services as part of a comprehensive service package, especially for individuals with limited employment experience or unstable work histories.
- Promote the use of case management techniques, particularly for JTPA participants in long training programs, or participants receiving several services to address multiple employment barriers.
- Use JTPA funds to actively shape the design of local training programs to be more responsive to the needs of JTPA participants.
- Encourage service providers to develop and offer training options which integrate basic skills training and occupational training.
- Review each program's occupational goals, the relevance of its curriculum given the local labor market, and the validity of program entrance requirements.
- To improve classroom training, monitor classroom instruction for the appropriateness of methods used and the quality of instruction, and pay more attention to the appropriateness of the placements being made at the conclusion of occupational classroom training.
- On the OJT side, clarify the purpose of OJT contracts to service providers as well as employers; do not encourage employer-initiated "reverse referrals" for OJT positions; specify the skills to be learned in the OJT contract; link the terms of contracts to characteristics of participants and jobs; take a more active role in shaping the content of training; and monitor the progress of contracts, preferably through on-site visits.

Implementing the National JTPA Study

Over the years, evaluation experts and policymakers have increasingly recognized that the most valid studies of program impacts use random assignment—a process identical to a drawing, in which eligible applicants for a program are randomly assigned to a group to be served (the "treatment" or "experimental" group) or to a group not given access to program services (the "control" group).

Because the groups are created randomly, there is no systematic difference between them prior to assignment to treatment or control status. This means that the labor market experiences of the control group provide an accurate benchmark for how the treatment group would have done without program participation. Thus, by comparing the differences between the two groups (for example, levels of earnings or welfare receipt), one can measure the true difference that a program has made.

It was this methodology that a panel of evaluation experts advised the Department to follow when designing JTPA impact evaluations. The Department accepted the recommendation and, beginning in 1985, designed and began implementing what is now called the National JTPA Study. The random assignment method had been used by other Federal agencies to evaluate one-time demonstrations, but it had not been used before to study an ongoing, operational program. The task was further complicated because of the complex structure of JTPA and the study's ambitious goals to:

- Estimate program impacts for important subgroups, such as adult men and women and out-of-school youth;
- Estimate both the overall impact of the JTPA activities provided in a sample of local programs and the specific impact of certain categories of activities such as OJT and classroom occupational training; and
- Use the opportunity of a random-assignment field study to seek better ways to identify an appropriate comparison group using methods which would not require random assignment.

A report describes the implementation of the study, which includes a sample of more than 20,000 people in 16 SDAs.[44] The SDAs, while not representative of the Nation in a statistical sense, do reflect the diversity of the JTPA system, including location, size, ethnic composition, population density, and performance ratings.

[44] Fred Doolittle and Linda Traeger, *Implementing the National JTPA Study* (New York, N.Y.: Manpower Demonstration Research Corporation, 1990).

The report also summarizes changes made in the original study design, which include providing technical assistance to help SDAs and service providers meet enrollment goals, simplifying the design to ease the administrative burden, increasing the compensation for participating SDAs' efforts, and urging States to administer the performance standards system more flexibly.

The report highlights a list of implementation lessons learned from the early phases of the study, including the following:

- When it becomes clear that research goals conflict, priorities must be set quickly so that a realistic plan can be developed.
- If participation by sites is not voluntary, sites must be offered an appropriate package of financial and nonfinancial benefits.
- Implementing a complex random-assignment evaluation design in an ongoing program inevitably somewhat changes the program's operations.
- Technical assistance and training of site staff are important.

The report concludes that it is possible to conduct a large-scale random-assignment field study within a system such as JTPA. But those involved in the task found that implementing the study in ongoing programs operating under performance standards and facing difficulties recruiting clients pushed random-assignment research to the limits of its feasibility. The study will run through 1992.

Enhancing JTPA Effectiveness Through Coordination

A wide diversity of models and strategies exists for coordinating JTPA services with those of other human resources programs, according to a study which assessed the role of program coordination in enhancing JTPA's effectiveness and efficiency.[45]

The study was designed to: (1) identify major strategies and characteristics of coordination; (2) assess the relative advantages and disadvantages of coordination; (3) identify factors that are effective in promoting and enhancing coordination; (4) assess legal, administrative, and other barriers to coordination; and (5) propose specific actions that might be taken at the Federal, State, and local levels to facilitate better integration of programs.

The study collected information on the experiences of JTPA agencies involved in State and local coordination projects. Researchers began with a review of the available literature on JTPA coordination and synthesized findings from over 100 articles and reports. In addition, telephone interviews were conducted with staff from 60 coordination projects, and on-site case studies were conducted of nine of the projects.

The principal findings of the study showed that:

- There is a variety of models and strategies that characterize coordination efforts, including "top-down" versus "bottom-up" coordination, "broad-scope" versus "narrow-scope" coordination, and varying degrees of integration of activities.
- The advantages of coordination substantially outweigh the disadvantages. Interviewees cited a variety of advantages, including: access to additional resources; ability to secure additional public and/or private funding; greater flexibility in using funds; ability to offer a wider range of services targeted to client needs; ability to place clients in jobs (through other agencies) at little or no additional cost; increased operational efficiency and reduction of duplicative agency efforts; better tracking of services received by clients; enhanced ability to serve mandated target groups; specialization in areas of expertise; and enhanced performance outcomes.
- Many factors promote successful coordination, including: high-level political support at the Federal and State levels, as well as support from agency and community leaders at the local level; cooperative attitudes among managers and staff of State and local agencies; decreases in funding and funding shortages, or the availability of new program funds earmarked for coordination; mutual needs and common goals of agencies, particularly related to serving clients effectively; a previous history of coordination; mechanisms to build consensus and to resolve conflicts that may arise during planning and implementation of coordination efforts; and colocation of facilities.
- Agencies encounter administrative, legal, and other barriers to coordination. The most common barriers noted are "turf" issues and ignorance or dislike of the philosophy or operations of other agencies.

The report provides the following recommendations to enhance coordination at the Federal, State, and local levels:

Federal level: Provide high-level support to coordination efforts by expanding efforts to document and communicate information about the benefits of coordination; give State and local officials charged with implementing Federally funded programs greater flexibility; and assure innovators that they will not be punished for taking chances in starting up projects.

State level: Strengthen statewide coordinating committees, provide localities with technical assistance and problem resolution, and arrange cross-training for agency staff.

[45] John Trutko, Burt Barnow, and Lawrence Bailis, *An Assessment of the JTPA Role in State and Local Coordination Activities* (Arlington, Va.: James Bell Associates, Inc., and Lewin/ICF, 1990).

Local level: Develop an understanding of the objectives and operations of other programs, increase joint planning, and document and evaluate coordination efforts.

JTPA Enrollees

For the most part, JTPA Title II-A participants receive the services that they want, according to a study that investigated data obtained from the Job Training Quarterly Survey during JTPA's early years.[46] Sixty percent of enrollees reported that they were interested in a particular type of job or job training, and 58 percent of this group indicated that JTPA provided what they wanted.

The study was based on the interview component of the Job Training Quarterly Survey—initial interviews with a sample of 6,507 JTPA participants who were newly enrolled in Title II-A programs during PY 1984. These interviews represent an estimated 699,400 persons who entered JTPA during the 12-month period. The purpose of the study's report was to describe the experiences and characteristics of persons served by JTPA and to make comparisons: (1) among subgroups of participants; (2) with persons served by earlier programs; and (3) with the population eligible for JTPA. Principal findings indicate that:

- In the year prior to JTPA entry, adults experienced a marked decline in employment and wages.
- Poor labor force experience and dependence on public assistance demonstrate the difficulties faced by the JTPA population before program participation.
- The interviews appeared to indicate that JTPA is providing Title II-A participants with desired services.
- Half of the enrollees in classroom training indicated that they received money for expenses and 28 percent said that they received stipends or allowances for attending class.
- Less than four percent of those assigned to on-the-job training indicated that educational classes were taken as part of the training.
- Comparisons of JTPA Title II-A with earlier Comprehensive Employment and Training Act (CETA) programs show that adults in JTPA spent a larger proportion of time in the labor force during the pre-program year.
- When compared to CETA, JTPA may have enrolled, in some respects, an easier-to-serve population in PY 1984. JTPA training activities enrolled larger proportions of whites, people with education beyond high school, and individuals with more labor force experience.
- When comparing JTPA enrollees to the eligible population, however, there is little evidence that the program emphasizes enrollment of the easier-to-serve.

Strengthening Private Industry Councils

Because the Private Industry Council is the cornerstone of the service delivery system under JTPA, the Department sponsored a study to determine elements which make an effective PIC and to identify strategies used by effective PICs in relating their JTPA programs to other organizations and segments of their communities.[47]

The result of the study was a three-volume report that: (1) describes the operation of 10 exemplary PICs[48] and provides an analysis of their operational structures; (2) reviews successful PIC operations and makes recommendations for improving the system; and (3) provides technical assistance for staff, council members, and others who work with PICs.

The study identified the 10 exemplary PICs based on 23 characteristics specified by an advisory board consisting of senior staff members of five public interest groups involved in employment and training.[49] Information on the structure, operation, and policies of each exemplary PIC was obtained during a three- to four-day visit which occurred between April and August 1989. Information was collected in seven areas that related to PIC operation, composition and functioning: (1) history and structure of the council; (2) policy and program planning; (3) community relations and coordination; (4) PIC chair and board membership; (5) staff; (6) relationships with the chief elected official; and (7) program performance.

Volume I of the study integrates the information to provide a comprehensive picture of each PIC. Recommendations for improving the PIC system, based on a summary of the findings from the exemplary PICs, appear in Volume II of the study. These are:

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[46] Westat, Inc., *A Profile of JTPA Enrollments: Characteristics of New Enrollees in Job Training Partnership Act Programs During Program Year 1984* (Washington, D.C.: Westat, Inc., 1989).

[47] Larry Condelli, Ann Kuhn, and Barbara Barrett, *Practical Guidance for Strengthening Private Industry Councils* (Washington, D.C.: CSR, Incorporated, 1990).

[48] The PICs were: Business and Industry Employment Development Council, Inc. (Pinellas Country, Florida); Private Industry Council of Philadelphia, Inc.; Corpus Christi/Nueces County Private Industry Council, Inc.; Private Industry Council, Portland, Oregon; Boston Private Industry Council; Contra Costa County Private Industry Council (California); Private Industry Council of Atlanta; Rural Colorado Private Industry Council; PIC of Greater Raritan, Inc. (Hunterdon, Middlesex, Somerset Counties, New Jersey); and Kankakee Valley Private Industry Council (Indiana).

[49] The five public interest groups were the National Alliance of Business, National Association of Private Industry Councils, National Job Training Partnership, Inc., National Association of Counties, and U.S. Conference of Mayors.

- PICs should be encouraged to maintain autonomous identities. Autonomy makes PICs more attractive to the private sector, allows policy decisions to be nonpolitical, and allows PICs to act more freely and quickly than they otherwise could. The study notes that autonomy is most often achieved by incorporation of the PIC. Fiscal and program oversight is improved by incorporation because the PIC can establish its own structures to perform these functions.
- Training materials should be developed for PIC board members. Because JTPA is complex (with complicated funding formulas, performance standards, eligibility requirements, and contracting regulations), and many PIC board members are unfamiliar with government programs, new PIC members are often confused when they begin serving on a council.
- Coordination should be encouraged through the development of Federal initiatives and funding incentives for successful coordination efforts. The report notes that many PICs identified funding and conflicting eligibility as barriers to coordination. Federal initiatives, such as the Job Opportunities and Basic Skills (JOBS) program, can serve as catalysts for coordination and can be helpful to PICs as they lead coordination efforts in their communities.
- Guidance should be provided for developing effective agreements between PICs and local elected officials. The study notes that each exemplary PIC had a good relationship with its local elected official. Advice on how to develop comprehensive written agreements with local elected officials would aid PICs in developing good relationships.
- Development of innovative programming should be encouraged. PICs need to develop innovative strategies for reaching the most needy populations and for providing long-term training. Funding constraints and performance standards are cited as barriers to operating such programs.

Volume III of the report is a technical assistance guide directed to PIC staff, council members, and other practitioners who work with PICs. It provides practical advice on how to improve PIC operations in 10 key areas: (1) identifying and selecting board members; (2) orienting and training board members; (3) organizing the PIC; (4) incorporating; (5) coordinating with other organizations; (6) selecting an executive director; (7) establishing a mission statement; (8) subjugating conflicts of interest; (9) maintaining the interest of board members; and (10) selecting vendors.

Using Computers to Enhance Job Corps Instruction

Computer-assisted instruction (CAI) can be a useful educational tool for Job Corpsmembers if used appropriately, according to a study designed to evaluate the impact of computer-assisted instruction on corpsmembers' academic performance and on their behavior (class attendance and length of stay in the Job Corps program).[50] While CAI had no measurable impact on learning gains and limited effect on attendance, it did help motivate corpsmembers to learn.

Ten Job Corps centers, selected to ensure diversity in geographic distribution, size, contractor or operator, and average entry level of reading skills among corpsmembers, participated in the research project. Corpsmembers who entered the Job Corps between July 1987 and April 1988 were randomly assigned to an experimental group or a control group. Corpsmembers in English-as-a-second-language classes and those not taking academic courses were excluded from the study. Those in the experimental group supplemented their regular curricula with computer-assisted instruction, and teachers assigned CAI to corpsmembers so that they would spend approximately one-third of their instructional time on a computer. Corpsmembers in the control group had no computer exposure.

The effectiveness of CAI was examined in several different ways in the study, as follows.

Corpsmember Motivation. Corpsmembers in all subjects liked working on the computer and said that they would like to spend more time on the computer. General Education Development (GED) corpsmembers who were exposed to CAI also reported that they were motivated to work harder (compared to controls) and liked their computer-assisted instruction GED classes more than other classes. Teachers noted that CAI is beneficial to corpsmembers because of the feedback it provides, its change of pace, its value in practice and repetition, and its adaptability to different students with different needs. For these reasons, teachers considered CAI to be motivational for many corpsmembers. Education supervisors also believed that CAI motivated corpsmembers and maintained their interest in class.

Impact on Teachers. For both teachers and education supervisors, the benefits of CAI were not immediately apparent—they emerged over time. During the initial months, teachers invested considerable time in learning about the computers, the software selected, and how to best manage the software for corpsmembers. During this time, CAI required considerable effort, with little immediate gain. After a period of time, however, both teachers and education supervisors reported that CAI provided

[50] Daniel Geller, *Job Corps: Evaluation of Computer-Assisted Instruction Pilot Project* (Bethesda, Md.: Shugoll Research, Inc., 1989).

definite instructional benefits. Teachers consistently rated CAI as very effective in meeting the educational needs of corpsmembers and generally perceived it to be somewhat better than the regular curricula.

Learning Gains. In reading, math, and GED, there were no overall significant differences between the experimental and control groups in learning gains. When the amount of exposure to CAI is considered, however, important differences emerge in some subject areas.

Specifically, for the two language arts subsets in reading (mechanics and expression), gains were significantly higher for corpsmembers exposed to more CAI (up to about 40 percent of instructional time on the computer). To a lesser extent, this was true for GED, where corpsmembers with greater exposure to CAI demonstrated greater gains from the pretest to the State examination in two of the GED content areas—math and science.

The study notes that the presence or absence of differences between CAI and another individualized curriculum may depend on the relative strengths of each curriculum, the CAI used, how the CAI is used (as a supplement to instruction or by itself), the teachers involved, and the particular corpsmembers studied.

Corpsmember Behavior. Experimental GED corpsmembers had a significantly higher attendance rate, by about 2.5 percent, than control corpsmembers, but CAI did not have a similar effect on attendance in reading and math. The report points out that the somewhat positive effect of CAI on attendance in GED may have been due to the motivating properties of some of the CAI used, particularly interactive problem-solving software. The study also suggests that CAI may be more motivating to the more goal-oriented corpsmembers who continue on to GED studies.

CAI had no effect on the length of stay in Job Corps. However, length of stay is affected by all elements of the program, including education classes and residential life, as well as perceived opportunities outside of Job Corps and pressures from family and friends.

Unemployment Insurance

Declining UI Claims

Regular unemployment insurance (UI) claims declined significantly relative to total unemployment during the 1980s. In fact, the ratio of unemployment insurance claims to total unemployment declined about 15 percent during the decade. A study of the reasons for this decline shows that it was not the result of one single factor, but rather it was caused by changes in the general labor market and by a number of policy changes at both the Federal and State levels.[51]

The study was based on: (1) a statistical analysis of national data covering the period 1948-1986; (2) an analysis of more detailed data from all States over the 1971-1986 period; and (3) in-person interviews with UI officials in the 11 largest States.

A summary of the investigation of the extent of the decline in UI claims reveals that:

- Regular UI claims declined by about 15 percent during the 1980s, with decreases greatest during 1983 and 1984.
- The decline in the UI claims ratio was mirrored in most other UI statistics on benefit receipt, including initial claims, first payments, and the total number of weeks compensated.
- The decline in UI claims also varied widely across States—it was greatest in Illinois and Michigan (major industrial States).
- Claims under all UI programs (including extended benefits programs and special programs such as Trade Adjustment Assistance) declined by an even greater extent than did claims under the regular State programs during the 1980s. Most of this decrease can be attributed to explicit policy changes made in these programs and to the decline in regular UI claims.

The researchers examined possible reasons for the decline in regular UI claims compared with total unemployment during the 1980s. Their findings suggest that the decline was partially the result of:

Changes in the Nature of the Labor Market in the 1980s. There was a decline in the proportion of the unemployed whose previous jobs were in manufacturing (an industry which has traditionally accounted for a large share of UI claims), and there were shifts in geographic distribution of unemployment. After controlling for business cycle influences, the percent of unemployment accounted for by manufacturing workers was more than three percentage points lower during the 1980s than during the previous decade.

Changes in Federal UI Laws. Changes introduced in the late 1970s and the early 1980s, such as the partial taxation of UI benefits, the adoption of less generous extended benefits programs, and the incorporation of compulsory pension-offset provisions, may have reduced the incentives to collect UI benefits during the 1980s.

Changes in State Laws. States are constantly changing UI laws governing the eligibility of individuals for UI benefits and the amounts of benefits for which they are

[51] Walter Corson, Walter Nicholson, and Mark Dynarski, *An Examination of Declining UI Claims During the 1980s, Unemployment Insurance Service Occasional Paper 88-3* (Princeton, N.J.: Mathematica Policy Research, 1988).

entitled. States also adjust their administrative procedures for determining both initial and continuing eligibility for UI. The widespread adoption of restrictive measures in any of these areas might have contributed to the decline in regular UI claims.

Changes in Measured Unemployment That Were Unrelated to UI Claims. If unemployment were measured more accurately during the 1980s than in previous decades or if unemployment were subject to an upward "drift" not associated with general economic conditions, then the UI claims ratio might have declined even in the absence of any explicit policy changes.

(Note: Additional Department-sponsored studies on the issue of declining claims have been completed since this *Report* period.)

Sub-State Area Extended Benefits

Since its inception, the UI program has designated a limited duration for receiving benefit payments. The concept that benefit duration should be increased when economic activity slows down was incorporated into the UI laws in 1970 when Congress passed the Extended Unemployment Compensation Act. The Extended Benefits (EB) program provides additional weeks of benefits to qualifying individuals who have exhausted their regular UI benefits.

This extension of benefits is "triggered" by labor market conditions at the State level. In an effort to assess the feasibility of developing and operating a program of extended UI benefits at the sub-State level, the Department sponsored a study of the feasibility of such a sub-State program.[52]

The first part of the study examined the differences in labor market conditions among sub-State areas and drew the following conclusions about the implications for sub-State triggering:

- Only when the thresholds for triggering on the program are set at high levels does sub-State triggering begin to produce greater eligibility than statewide triggering.
- A sub-State trigger could target benefits to areas with weak labor markets much more efficiently than a statewide program during nonrecessionary years, but the potential improvement during recessionary years appears insignificant.
- A sub-State trigger based on established metropolitan area designations and regional groupings of the remaining counties would provide nearly the same targeting efficiency as a trigger based on individual counties.

The second part of the analysis involved the use of a simulation model to determine the feasibility of a sub-State trigger and to evaluate the targeting efficiency of alternative sub-State program design options. The analysis demonstrated that the choices of trigger indicator, threshold level, and geographic disaggregation have important consequences for the number and characteristics of EB recipients under various types of sub-State programs. Principal findings include the following:

- Sub-State programs produce many more changes in the status of the EB program than do statewide programs. As a result, administrative costs are higher under sub-State options.
- With a larger number of sub-State areas, sub-State EB programs tend to concentrate fewer of their benefit payments in recessionary years.
- The performance of a sub-State program can be affected by the pattern of a recession. Long, relatively shallow recessions are likely to generate larger numbers of EB payments under a sub-State option than are short, steep recessions.

The study also reviewed the major issues and options related to the choice of an appropriate sub-State trigger indicator, the definition of sub-State areas, and the construction of triggers within the constraints imposed by current data collection systems. The study concludes that:

- There is a significant gap between what the current EB trigger measures and what an appropriate sub-State trigger would have to measure to maximize the efficiency of EB targeting.
- A strategy for dealing with labor markets which cross State lines must be included in any sub-State program design.
- Because of the need to rely on monthly data and longer data preparation time, a sub-State program will respond less rapidly to changing economic conditions than does the current State program. Researchers estimated an additional lag of six to eight weeks.

The study examined the feasibility of implementing and administering a sub-State EB program, indicating that:

- Identification and notification of potential claimants who meet the geographic requirements would become more burdensome the greater the complexity of eligibility determination and the more frequently the program triggered on and off.
- Determination of each claimant's eligibility would be made more difficult by the need to verify residence or former place of work (or both) at the sub-State level.
- Processing of interstate claims would be made more complex by the need to identify and determine the EB

[52] John L. Czajka, Sharon L. Long, and Walter Nicholson, *An Evaluation of the Feasibility of a Substate Area Extended Benefit Program, Unemployment Insurance Service Occasional Paper 89-5* (Washington, D.C.: Mathematica Policy Research, Inc. 1989).

status of the sub-State area in which the claimant lived or worked.

- Production of a sub-State trigger would entail minimal additional effort if the trigger were defined as the monthly Local Area Unemployment Statistics (LAUS) estimate of the total unemployment rate, but it could require a significant increase in data collection and processing if an alternative trigger were adopted.

UI Experience Rating

The degree of experience rating in the unemployment insurance system should be increased, according to a study that examined factors associated with experience rating.[53] A report on the study also reviews an analysis of experience rating conducted by the Department of Labor's Office of the Inspector General.

State UI programs in the United States are financed mainly by employer payroll taxes. States are responsible for determining the level of employer payroll taxes, subject to the provisions of the Federal Unemployment Tax Act. All State UI programs (except Puerto Rico) "experience rate" the UI taxes that employers are required to pay, so that benefit payments to former employees or related factors influence the employer's tax obligation. For example, an increase in UI payments to former employees generally causes the employer to be subjected to higher tax payments in future years.

The experience rating concept, unique to the United States, was introduced into UI programs to: (1) serve as an incentive to stabilize employment; (2) produce an appropriate allocation of the costs of UI benefits; and (3) encourage employers to participate more actively in the UI program by prompting them to monitor the program for unjustified benefit payments.

According to the study, any statutory changes which increase the degree of experience rating can be expected to:

- Change the allocation of unemployment insurance costs across industries. The researcher suggests that this would be a desirable outcome because future tax payments would more closely reflect the pattern of actual benefit cost experiences by industry.
- Lead to some lessening of layoffs, employee turnover, and unemployment. The researcher notes that this effect would probably be quite small, but it would help to make some reduction in unemployment.

[53] Wayne Vroman, *Experience Rating in Unemployment Insurance: Some Current Issues, Unemployment Insurance Service Occasional Paper 89-6* (U.S. Department of Labor, Employment and Training Administration, 1989).

Speeding Up Jobless Workers' Return to Work

The New Jersey Unemployment Insurance Reemployment Demonstration Project shows that a variety of reemployment assistance packages increased UI claimants' employment and earnings the year following their initial UI claims, and significantly reduced the amount of benefits collected over the benefit year.[54]

The demonstration project was designed to examine whether the UI system could be used to identify UI claimants who are displaced workers early in their unemployment spells and to test alternative early intervention strategies designed to accelerate their return to work. Three "packages" of services were tested in the demonstration: (1) job-search assistance only; (2) job-search assistance combined with training or relocation assistance; and (3) job-search assistance combined with a cash bonus for early reemployment. Eligible claimants were identified and services were provided through the coordinated efforts of the Unemployment Insurance Service, the Employment Service, and the Job Training Partnership Act system.

The project design called for identifying demonstration-eligible individuals in the week following their first UI payment and assigning them randomly to one of three "test" groups that offered the alternative packages of reemployment services or to a control group that received existing services. The control group was designed to provide a "baseline" against which to measure the impacts of the demonstration services. The demonstration, which began in July 1986, was implemented in 10 local UI offices.

Almost 8,700 claimants were offered one of the three service packages, and another 2,385 claimants who received existing standard services were selected for the control group. A benefit-cost analysis of the project determined that all three service packages offered net benefits to society as a whole and to claimants, when compared with existing services, although none was more cost-effective for the unemployment insurance system.

The three service packages reduced the average amount of benefits collected per claimant over the benefit year. Job-search assistance alone (with no other services) reduced the average amount of UI dollars claimed by $87 per claimant during the first year after participation in the project; job-search assistance combined with training or relocation assistance reduced the average amount by $81

[54] Walter Corson et al., *The New Jersey Unemployment Insurance Reemployment Demonstration Project, Unemployment Insurance Service Occasional Paper 89-3* (Princeton, N.J.: New Jersey Department of Labor and Mathematica Policy Research, Inc., 1989).

per claimant during the year; and job-search assistance combined with a cash bonus for early reemployment reduced the average amount by $170 per claimant. However, the reductions in the UI benefits paid to claimants did not by themselves outweigh the net cost of providing additional services during the initial follow-up period.

According to the report, the analysis of impacts suggests that the service packages tested were less successful for individuals who faced serious structural unemployment problems (such as blue-collar workers, workers from durable-goods manufacturing industries, and permanently separated workers). The researchers indicate that the treatments, particularly the initial mandatory job-search assistance services, are appropriate and cost-effective for a broad-range of UI claimants who meet reasonable operational definitions of displacement, but that longer-run, more intensive services may be needed for displaced individuals who face major structural dislocations.

(Note: A follow-up study, completed in December 1990, provides four years of follow-up data on the New Jersey demonstration. The study was designed to extend the evaluation to examine UI and earnings over a four-year period.)

Reemployment Services for Long-Term UI Claimants

The Department has sponsored a number of studies designed to learn if early intervention for unemployment insurance claimants who are experiencing problems in finding jobs results in reducing UI expenditures associated with long-term unemployment.

A study of the feasibility of identifying and targeting services to long-term UI claimants who need reemployment services and who have reached the later stages of their UI benefit periods indicates that UI claimants who need help finding jobs are often reluctant to accept reemployment services during the initial few weeks of their UI claim period.[55] In contrast, claimants who have reached the later stages of their UI benefit period and are experiencing reemployment problems are more likely to accept services designed to help them find a job.

Two study methods were used. Telephone interviews were conducted with samples of UI claimants approximately four to six months after they had reached the last five weeks of their UI benefit period. The time lag allowed the researchers to analyze the post-UI employment status of the sample and to identify claimants who were experiencing reemployment problems after leaving the UI rolls. Claimants in the sample had been on UI for at least 22 weeks and met researchers' definition of "long-term claimants." They were selected from 10 local communities which had experienced significant problems of long-term unemployment during the 1980s.

The second method used to gather data for the study consisted of in-person interviews with State and local program officials in the 10 States where telephone surveys were conducted with UI claimants. Interviews were conducted with officials from the Employment Service, the UI program, and JTPA agencies. These interviews were designed to examine the effectiveness of existing program linkages in targeting services to long-term UI claimants.

Major findings of the claimant interviews included the following:

- One-third of the long-term UI claimants were still experiencing reemployment problems four to six months after exhausting UI benefits.
- Of those long-term UI claimants who had found jobs, 36.5 percent were not satisfied with their jobs and were seeking other employment.
- Of those who were still unemployed and looking for work, a majority (80 percent) indicated that they did not have much interest in specific reemployment services, but would have accepted job search assistance early in their claim period if it had been offered.
- The data did not support a policy of targeting services to specific subgroups of long-term UI claimants.
- Claimants who were more likely to experience reemployment problems were male, 55-64 years old, and had no college education, or those whose jobs ended because their firm went out of business or left the local area.

The results of the interviews with State and local officials indicated that many long-term UI claimants had suffered from unrealistic expectations of being recalled, educational deficiencies and functional illiteracy, lack of job search skills, attitudes of mistrust and hostility, reluctance to relocate, lack of familiarity with the ES among union members, and reluctance to enroll in training after exhaustion of UI benefits.

The study also found that long-term UI claimants had the following experiences with reemployment services:

- About two-thirds of the claimants used the Employment Service, but only one-half of these claimants felt that it was helpful, and only two percent received a job as a result of an ES referral.
- Only six percent participated in any type of job assistance classes, job clubs, or counseling other than services provided through the Employment Service, and only 1.4

[55] Philip Richardson et al., *Referral of Long-Term Unemployment Insurance Claimants to Reemployment Services, Unemployment Insurance Service Occasional Paper 89-2* (Silver Spring, Md., and Princeton, N.J.: Macro Systems, Inc., and Mathematica Policy Research, 1989).

percent had participated in training, either in on-the-job training programs or in occupational training programs.
- Those who encountered the most problems becoming reemployed were also the least likely to use reemployment services.

The report includes recommended components of a model system for improving the coordination of reemployment services for long-term UI claimants. They are:
- Integrated service delivery with a one-stop concept;
- Availability of services from the beginning of the claim period;
- Provision of an in-depth assessment of individual needs and a flexible program of services from which claimants can choose;
- Greater use of the Eligibility Review Program to assess employment barriers and claimant availability and to refer claimants to appropriate services;
- Continuous tracking and targeting of claimants for recruitment into reemployment programs; and
- Targeting of specialized services to long-term UI claimants having difficulty becoming reemployed.

CHILD CARE

Women not only make up a significantly greater proportion of the labor force than they did in previous years, but will continue to make up a large share of the new workers entering the work force in the years ahead. These developments prompted the Department to sponsor several studies which examined various aspects of the availability of child care and its impacts on the labor force participation of women and worker productivity.

Employer-Supported Child Care

In an effort to better understand the relationship between employer-supported child care and worker productivity, the Department commissioned a study to determine: (1) what is known about the productivity impacts of employer-supported child care; (2) what role cost-benefit considerations play in employer decision-making about child care; and (3) whether there are sound, practical evaluation designs that could be used by employers to assess the value of their child care programs.[56]

Research consisted of a comprehensive literature review as well as on-site case studies of seven organizations. Two employers supported child care centers for their employees, two supported programs for mildly sick children, two offered partial reimbursement for child care expenses, and one was considering whether to offer some form of child care benefit. The study also attempted to clarify the definitions of various evaluation measures relating to the benefits of employer-supported child care.

The literature review identified three major problems associated with establishing a link between child care benefits and productivity gains. These were: (1) defining and measuring productivity; (2) determining the relationship between the child care benefit and other outcomes that were detected; and (3) determining whether the effects of a child care program were worth the cost to the employer.

The report noted that much of the evidence of productivity gains from employer-supported child care was subjective and based on workers' or managers' survey responses. Such evidence and the lack of objective measures made documenting the productivity impact of child care very difficult.

The report provides recommendations to employers interested in deciding on or refining child care benefits. They include the need to:
- Undertake a careful needs assessment and planning process;
- Carefully identify the most relevant outcomes;
- Recognize the effects of other benefits and policies;
- Consider data needs in advance;
- Select appropriate comparison groups; and
- Consider the feasibility of and appropriate measures for determining cost-effectiveness.

The report concludes by noting that given the extent to which family responsibilities have been found to conflict with work responsibilities, it is reasonable to think that well-designed programs aimed at assisting the family in this critical area would have a positive effect on work performance. And indeed, a number of employers who believe in the value of child care programs have begun to establish them. If this number grows substantially, child care programs may come to be thought of (along with health insurance and vacation time) as part of the standard package of benefits offered by employers interested in attracting and retaining good employees.

As part of the same project, a guidebook was prepared and published to help employers and managers reach decisions about whether child care programs are appropriate for their organizations, and, if so, which types of programs make the most sense.[57] For employers who

[56] Victor Rubin, Phyllis J. Weinstock, Carol A. Chetkovich, and Laura Schlichtmann, *Employer-Support Child Care: Measuring and Understanding Its Impacts on the Workplace* (Oakland, Calif.: Berkeley Planning Associates, 1989).

[57] Victor Rubin, Phyllis J. Weinstock, Carol A. Chetkovich, and Laura Schlichtmann, *A Guide to Assessing the Benefits and Costs of Employer Child Care Assistance* (Oakland, Calif.: Berkeley Planning Associates, 1989).

already provide support for child care, the guidebook helps them to determine the best approach for evaluating their efforts.

Among other things, the guidebook outlines how to estimate the costs involved in various forms of child care benefit programs, and discusses how to estimate the savings related to reductions in employee turnover and absenteeism, including savings which may arise in the areas of recruitment and public relations. In addition, it addresses ways in which the cause-and-effect relationship between the employer-provided child care benefits and observed changes in workplace behavior can be studied. The guidebook presents several major strategies for evaluating child care benefits and discusses the major advantages and limitations of each strategy.

A Comparison of Three Types of Child Care Arrangements

A survey compared three types of employer-supported child care arrangements in the State of Wisconsin: on-site child care centers, flexible spending accounts (FSAs) for child care, and employer resource and referral (R&R) services. The project involved 36 companies (manufacturers, employers of office/clerical workers, and health care institutions). The firms, averaging 1,222 employees, provided information about their work force, child care benefits, and benefit users.

According to the project's final report, the percentages of employees that used each benefit option varied depending on the type of benefit offered.[58] Higher percentages of employees used the child care center and the FSA options than used the R&R option. The average percentage of employees who used a benefit was 9.25 for companies with centers, 3.59 for firms with FSAs, and 1.31 for those offering R&Rs.

Improved morale of program users was reported by employer representatives of 86 percent of the companies with centers, 67 percent of those with FSAs, and 60 percent of those offering R&Rs. Ninety-three percent of the employers with centers reported receiving favorable publicity on providing the option, as did 39 percent of those with FSAs, and 50 percent of those with R&Rs. Companies with child care centers also reported the following benefits: positive influence on recruitment (79 percent), reduced absenteeism (64 percent), reduced tardiness (43 percent), reduced job turnover (79 percent), improved morale of all employees (57 percent), and ability of employees to accept promotion (50 percent).

Profiles of benefit users were developed from the project data. Most child care center users were in the middle and high ranges for gross family income. Before center enrollment, 28-61 percent of the parents had no previous child care arrangements outside of spouse or siblings, and 30-35 percent of the parents had used babysitters or family day care. More of the employees used the center for part-time than for full-time care.

FSA users tended to come from high salary groups—only 11 percent had salaries under $20,000 a year. Most R&R users requested care for children under two years of age, and the most frequently requested arrangement was for family day care.

Selected data on the survey was reported in a companion document to the final report.[59]

The Impact of Child Care on Women in the Labor Force

A study analyzed the impact of child care costs, quality, and availability on the demand for commercial and noncommercial child care and the effects of this demand on the labor market behavior of married women.[60]

A major contribution of the study is the construction of a formal analytical framework (a model) which takes into account such factors as the differences between commercial and noncommercial child care, the quality of different types of care, part-time labor market participation, and hourly costs of services.

Findings covered in the report show that:

- Married women's labor force participation increases with the quality of nonmaternal care and decreases with the amount of unearned income.
- The demand for commercial child care services increases with income and decreases as costs for services rise.
- The demand for noncommercial services increases as the costs of commercial care go up and decreases with higher incomes and better quality commercial care.
- Commercial child care costs have stronger negative effects on employment and commercial care use and, conversely, stronger positive effects on noncommercial care use than previous studies have shown.
- The availability of noncommercial care providers (relatives, for example) has a strong impact on the use of such care.

[58] Kathryn Senn Perry, Laurie McGee, and Nancy Mullikin, *Wisconsin's Response to Families and Work* (Madison, Wis.: State of Wisconsin, Office of the Lieutenant Governor, 1989).

[59] Kathryn Senn Perry, Laurie McGee, and Nancy Mullikin, *Report on Benefits to Employers Providing On-Site Child Care Centers, Flexible Spending Accounts for Dependent Care Costs or Child Care Resource and Referral Services* (Madison, Wis.: State of Wisconsin, Office of the Lieutenant Governor, 1989).

[60] David Ribar, *Child Care and the Labor Supply of Married Women* (Providence, R.I.: Brown University, 1990).

Analysis also showed that expense-related subsidies (for example, the Child and Dependent Care Tax Credit) increase the demand for child care and the labor supply of married women. Income subsidies, on the other hand, appear to have little impact on married women's labor market behavior.

ANNOTATED BIBLIOGRAPHY OF RESEARCH AND EVALUATION REPORTS COMPLETED DURING PROGRAM YEARS 1985 THROUGH 1989

ANNOTATED BIBLIOGRAPHY

Following is a bibliography of research and evaluation reports completed or reviewed by ETA during Program Years 1985 through 1989—from July 1, 1985, through June 30, 1990. Each report is listed by title, contractor/grantee, and contract/grant number (as appropriate).

Many of the reports are available from ETA's Office of Strategic Planning and Policy Development, Room N-5637, 200 Constitution Avenue, N.W., Washington, D.C. 20210. Most are also available through the National Technical Information Service (NTIS). Copies may be purchased, in paper or microfiche, from NTIS, Operations Division, Springfield, Va. 22151. The NTIS telephone number is (703) 487-4650. NTIS numbers are provided for reports.

Access of Female Workers to On-the-Job Training—University of Kentucky, 1989. Examines the impact of on-the-job training on gender wage differences.
Grant Number: 99-8-3435-75-002-02
NTIS Number: PB 90-205352/AS

Administrative and Policy Studies of Unemployment Insurance Qualifying Requirements—The Policy Research Group, Inc., 1985. Analyzes various State UI qualifying requirements in terms of distribution of benefits, costs, and paperwork burden.
Contract Number: 20-11-82-26
NTIS Number: PB 86-104544/AS

AFDC Recipients in JTPA—Westat, Inc., 1987. Two volumes. Focuses on Title II-A participants who were receiving Aid to Families with Dependent Children at the time of program entry.
Contract Number: 99-6-0584-77-066-01

Alternative Methods for Evaluating the Impact of Training on Earnings—Economics Research Center, University of Chicago, 1983. Considers the problems of estimating the impact of training on earnings.
Contract Number: 20-17-82-20

An Analysis of the Impact of CETA Programs on Components of Earnings and Other Outcomes—SRI International, 1984. Focuses on estimating the impact of program participation on earnings and the composition of earnings changes.
Contract Number: 20-06-82-22

An Analysis of the Impact of CETA Programs on Participants' Earnings—SRI International, 1984. Estimates the net impact of CETA programs on participants' postprogram earnings.
Contract Number: 20-06-82-21

An Analysis of UI Trust Fund Adequacy—ICF Incorporated, 1987. Analyzes State benefit financing in the unemployment insurance system and suggests alternative measures of adequacy of the UI Trust Fund.
Contract Number: 99-5-3024-04-090-01
NTIS Number: PB 87-209342

An Assessment of Alternative Comparison Group Methodologies for Evaluating Employment and Training Programs—Mathematica Policy Research, Inc., 1984. Provides an empirical assessment of the reliability of net program impact estimates.
Contract Number: 20-11-82-15

Assessment of the Implementation and Effects of the JTPA Title V Wagner-Peyser Amendments—Phase II Final

Report—Macro Systems, Inc., 1985. Process study assessing the effects of the JTPA Title V amendments during PY 1984. The report is based primarily upon interviews with officials in 16 States and 31 SDAs.
Contract Number: 99-4-576-77-081-01
NTIS Number: PB 86-169604/AS

An Assessment of the JTPA Role in State and Local Coordination Activities—James Bell Associates, 1990. Assesses the role of program coordination in enhancing JTPA program effectiveness and efficiency. The report identifies major strategies and characteristics of coordination; assesses relative advantages and disadvantages of coordination; identifies factors which are effective in promoting and enhancing coordination; and assesses legal, administrative and other barriers to coordination.
Contract Number: 99-8-4701-75-065-01
NTIS Number: PB 91-219519/AS

The Availability of Information for Defining and Assessing Basic Skills Required for Specific Occupations—The Urban Institute, 1990. Incorporates a literature review, employer interviews, and an assessment of all available skill-measurement tests. Identifies skills that employers highly value.
Contract Number: 99-9-0421-75-081-01
NTIS Number: PB 91-212357

Best Practices: What Works in Training and Development (Accounting and Evaluation)—American Society for Training and Development, 1989. Highlights the responsibilities of human resource developers for measuring and evaluating training. Includes a discussion of the main reasons for measuring and evaluating training, the costs of training, and the problems that impede measuring and evaluating training.
Grant Number: 99-6-0705-75-079-02
NTIS Number: PB 89-223705/AS

Best Practices: What Works in Training and Development (Basic Skills)—American Society for Training and Development, 1989. Assesses the skills that employers want in their work force, why those skills are strategically important to organizations, and why they should be considered "basic." Examines 16 skills in detail and provides a model for establishing a workplace basics program.
Grant Number: 99-6-0705-75-079-02
NTIS Number: PB 89-181754/AS

Best Practices: What Works in Training and Development (Basic Skills Manual)—American Society for Training and Development, 1989. Companion manual to the ASTD *Basic Skills* text (above). Provides practical information for employers and trainers on how to set up workplace basics programs. The model identified in the text is the basis for the step-by-step process that is the "blueprint for success" in the manual.
Grant Number: 99-6-0705-75-079-02
NTIS Number: PB 89-181747/AS

Best Practices: What Works in Training and Development (Organization and Strategic Role)—American Society for Training and Development, 1989. Identifies who receives training in America and how training is structured, financed, and connected to the strategic goals of employers. Suggests practical methods for connecting training to employer goals and for influencing strategic decision-making.
Grant Number: 99-6-0705-75-079-02
NTIS Number: PB 89-181762/AS

Best Practices: What Works in Training and Development (Technical Training)—American Society for Training and Development, 1989. Provides an understanding of America's technical work force, the learning systems that keep the work force well skilled, and how corporations are managing their technical training needs.
Grant Number: 99-6-0705-75-079-02
NTIS Number: PB 89-223713/AS

Building a Job Service for the Year 2000: Innovative State Practices—Interstate Conference of Employment Security Agencies, 1989. Analyzes innovative State Job Service practices in four general areas: improving the job match process, developing applicant jobseeking skills, recruiting workers in a labor-short economy, and improving the efficiency of public training and employment programs through a cooperative service delivery system.
Grant Number: 99-7-1154-98-357-02
NTIS Number: PB 90-216664

Case Studies of Exemplary Dislocated Worker Programs—CSR Incorporated, 1986. Provides descriptions of 10 projects operated under Title III of JTPA.
Contract Number: 9-5-2224-61-019-01

Case Studies of JTPA Title III Projects Serving Workers Dislocated From the Steel and Copper Industries—CSR Incorporated, 1986. Describes five JTPA Title III projects serving workers dislocated from the steel and copper industries.
Contract Number: 99-5-2224-61-019-01

Child Care and the Labor Supply of Married Women—David Christopher Ribar (Doctoral Dissertation), Brown University, 1990. Uses information from the Survey of Income and Program Participation (SIPP) to provide

labor supply and cross-section child care data. Examines family demands for child care services and presents a conceptual child care and labor supply model.
Grant Number: 99-93545-98-078-04

Development of Employment Service Performance Standards for Sub-State Areas—Abt Associates, Inc., 1985. Concerned with updating the existing State-level performance standards model and applying the model to sub-State areas.
Contract Number: 20-25-82-09
NTIS Number: PB 86-144896/AS

Displaced Workers, 1981-1985—Department of Labor, Bureau of Labor Statistics, Bulletin 2289, 1987. Provides an update on the status, location and demographics of displaced workers through 1985, based on Current Population Survey data. (Material was published initially in an article in the June 1987 issue of the *Monthy Labor Review*. It was reprinted with additional tabular material and an explanatory note in Bulletin 2289.)

"Displaced Workers of 1979-1983: How Well Have They Fared?"—Monthly Labor Review, Bureau of Labor Statistics, June 1985. Analyzes the effects of plant closing and long-term unemployment on various age, sex, ethnic, and occupational groups with regard to earnings, health benefits, period of unemployment, and other relevant factors.

Dual Careers, Volume 6: Fifteen Year Report on the National Longitudinal Surveys of Mature Women's Cohort—The Ohio State University, 1985. Explores similarities and differences of black and white mature women covering a broad spectrum of occupational and family considerations.
Contract Number: 82-39-72-21
NTIS Number: PB 86-144995/AS

Employer-Supported Child Care: Measuring and Understanding Its Impacts on the Workplace—Berkeley Planning Associates, 1989. Investigates the relationship between child care and productivity and includes a review of the literature. Contains case studies of seven firms deciding to provide child care for employees, traces the decision-making process leading firms to become involved in child care, and provides an evaluation design by which to assess results.
Contract Number: 99-8-3229-075-01
NTIS Number: PB 90-225285/AS

Enhancing Literacy for Jobs and Productivity—Council of State Policy and Planning Agencies (now known as the Council of Governors' Policy Advisors), 1989. Provides guidance to States and organizations interested in developing statewide coordinated policies aimed at raising workforce literacy levels.
Grant Number: 99-7-3415-98-336-02
NTIS Number: PB 89-205322

Evaluation of Existing Automated Interstate Job Finding Programs—Macro Systems, 1989. Examines various aspects of the existing interstate automated job finding system and a variety of alternative approaches to the existing system.
Contract Number: 99-8-0576-75-030-01

An Evaluation of the Feasibility of a Substate Area Extended Benefit Program (Unemployment Insurance Occasional Paper 89-5)—Mathematica Policy Research, 1989. Assesses the feasibility of developing and operating a program of extended UI benefits at the sub-State level. Examines differences in labor market conditions among sub-State areas and uses a simulation model to evaluate the targeting efficiency of alternative sub-State program design options.
Contract Number: 99-7-0805-04-138-01
NTIS Number: PB 90-127531/AS

An Evaluation of the Federal Supplemental Compensation Program—Mathematica Policy Research, Inc., 1986. Analyzes the effects of the FSC program on recipients in the economic context of the recession of the 1980s.
Contract Number: 99-3-2034-77-139-01
NTIS Number: PB 86-163144/AS

Evaluation of the Implementation of Performance Standards Under JTPA Title II-A—Centaur Associates, Inc., 1987. Describes the standards used to evaluate program management and the strengths and weaknesses of the performance management system, among other items.
Contract Number: 99-5-3348-77-050-01

Evaluation of Job Corps' Pilot Project to Include 22- to 24-Year-Olds—Executive Resource Associates, Inc., 1987. Studies the value of serving 22- to 24-year-olds in Job Corps.
Contract Number: 99-6-2746-35-011-01

An Evaluation of Short-Time Compensation Programs—Mathematica Policy Research, Inc., 1986. Analyzes the effects of short-time compensation programs on employment stability of workers and demands on the Unemployment Insurance Trust Fund.
Contract Number: 99-3-0805-77-117-01
NTIS Number: PB 86-167616/AS

Evaluation Study of the Senior Community Service Employment Program—Centaur Associates, Inc., 1986. Assesses the ability of the SCSEP program to reach and serve target groups, provides a process description of the program, and describes satisfaction of participants and host agencies.
Contract Number: 99-5-3333-77-021-01

An Examination of Declining UI Claims During the 1980s (Unemployment Insurance Occasional Paper 88-3)—Mathematica Policy Research, Inc., 1989. Describes factors contributing to the decline in the number of initial claims in the 1980s.
Contract Number: 99-6-0805-04-097-01
NTIS Number: PB 89-160048/AS

Experience Rating in Unemployment Insurance: Some Current Issues (Unemployment Insurance Occasional Paper 89-6)—U.S. Department of Labor, Unemployment Insurance Service, 1989. Looks at experience rating in unemployment insurance by defining important experience rating concepts, reviewing four associated issues, examining the degree of experience rating, and critiquing a recent analysis of the system conducted by the U.S. Department of Labor.
NTIS Number: PB 90-216656

The Extent and Pattern of Joblessness Among Minority Men—SRI International, 1989. Documents and analyzes the disparity in the labor market performance of black and Hispanic men vis-a-vis white men, focusing specifically on labor force participation, unemployment, and hours of work during a year.
Contract Number: 99-8-3055-75-080-01
NTIS Number: PB 89-218671/AS

Fairness in Employment Testing: Validity Generalization, Minority Issues, and the General Aptitude Test Battery—National Research Council, 1989. Investigates various aspects of the General Aptitude Test Battery related to accuracy and fairness.
Contract Number: 99-7-3239-98-101-01

Fifty Years of Unemployment Insurance—A Legislative History: 1935-1985—Department of Labor, Employment and Training Administration, 1986. Provides background, framework, and detailed legislative history of the Federal-State unemployment insurance system.
NTIS Number: PB 87-179834/AS

Financial Incentives for Employer-Provided Worker Training: A Review of Relevant Experience in the U.S. and Abroad—The Urban Institute, 1990. Explores several incentives, such as tax credits, direct government grants, and mandatory training programs, that could be used to encourage employers to provide additional training for their employees.
Contract Number: 99-9-0421-75-081-01
NTIS Number: PB 91-212373

Finishing Up with Pride: A Case Study in Early Intervention Assistance for Tennessee Copper Miners—Annapolis Economic Research, 1989. Describes advance notification in connection with the Tennessee Chemical Company's mass layoff in 1987. The case study shows that early intervention assistance, when coupled with union and company support, can significantly increase the number of workers who can be assisted in their reemployment efforts.
Contract Number: 99-8-4521-75-007-04

FIRMSTART: An Examination of Self-Employment—Corporation for Economic Development, 1989. Provides research on and policy analysis of the viability of self-employment for people who are unemployed or have low incomes. Report was produced as a joint effort of three States—Massachusetts, Michigan, and New Jersey.
Grant Number: 99-8-3394-98-001-02

A Guide to Assessing the Benefits and Costs of Employer Child Care Assistance—Berkeley Planning Associates, 1989. Assists employers and managers to reach decisions about whether child care benefits are appropriate for their organization, and, if so, which types of benefits are most appropriate. For employers who already provide support for child care, the guidebook assists in determining the best approach to evaluating employer efforts.
Contract Number: 99-8-3229-075-01
NTIS Number: PB 90-225285/AS

Health Status and Work Activity of Older Men: Events-History Analyses of Selected Social Policy Issues—The Ohio State University, 1985. Describes the effects of health, longevity, ethnicity, inherited factors, occupation, and job satisfaction on decisions to retire or remain employed.
Contract Number: 82-39-72-21
NTIS Number: PB 85-235497/AS

How Workers Get Their Training—Bureau of Labor Statistics, 1985. Describes sources and uses of training to obtain jobs. Contains information useful in career guidance and planning education and training programs.

ICD Survey II: Employing Disabled Americans—International Center for the Disabled, 1987. Describes the responses of top managers and line supervisors to ques-

tions on hiring policy and practices, experiences with disabled employees, and attitudes concerning reasons for not hiring disabled workers; the survey also suggests further actions to promote their hiring.
Grant Number: 99-6-3396-98-073-02

Impact of Advance Notice Provisions on Postdisplacement Outcomes—Boston University, 1990. Examines the extent to which advance notice eases adjustment problems for workers displaced from their jobs due to plant closings and permanent layoffs.
Contract Number: 99-8-2152-95-082-01
NTIS Number: PB 90-226648/AS

Impact Study of the Implementation and Use of the Targeted Jobs Tax Credit Program—Macro Systems, Inc., 1986. Five volumes plus overview and summary. Looks at the effectiveness of the Targeted Jobs Tax Credit and describes its short-term net impact on four target groups: disadvantaged youth, welfare recipients, veterans, and handicapped persons.
Contract Number: 99-4-576-77-091-01

Implementation of the Job Training Partnership Act: Final Report—Westat, Inc., 1985. Studies implementation period of JTPA Titles II-A and III during first nine months of PY 1984.
Contract Number: 99-3-0584-75-104-01
NTIS Number: PB 85-198661

Implementing the National JTPA Study—Manpower Demonstration Research Corporation, 1990. Reviews various technical aspects of the implementation of the National JTPA Study.
Contract Number: 99-6-3356-77-061-01

Improving the Quality of Training Under JTPA—Berkeley Planning Associates and SRI International, 1989. Examines the quality of training provided to adults under JTPA Title II-A. Forty-three occupational training programs were visited in 15 randomly selected SDAs.
Contract Number: 99-8-3229-75-087-01
NTIS Number: PB 91-212143

Intake Systems for Dislocated Worker Programs: Matching Dislocated Workers to Appropriate Services—CSR Incorporated, 1986. Concerned with intake systems for controlling the flow of eligible applicants for programs funded under Title III of JTPA.
Contract Number: 99-5-2224-61-019-01

Interorganizational Partnerships in Local Job Creation and Job Training Efforts: Six Case Studies—Cosmos Corporation, 1989. Presents examples of best practices in linking local resources and organizations to job creation and job training initiatives.
Contract Number: 99-8-4700-75-064-01
NTIS Number: PB 90-131392/AS

Issues for Active State Management of the JTPA Title III Grant—Westat, Inc., 1986. A guide for State planners and managers on the grant management process for Title III.
Contract Number: 99-5-2224-61-019-01

The Jacksonville Experience: Building on Success—MDC, Inc., 1988. Examines the JTPA summer youth program operated by the city of Jacksonville, Fla., during 1986 and 1987. The city's program was one of the first summer programs to combine classroom basic education and work experience.
Grant Number: 99-6-3393-77-068-02

Job Corps: Evaluation of Computer-Assisted Instruction Pilot Project—Shugoll Research, Inc., 1989. Assesses the impact of computer-assisted instruction (CAI) on Job Corpsmembers' academic performance and behavior.
Contract Number: 99-6-4524-77-073-01
NTIS Number: PB 89-218580/AS

Job Corps Process Analysis—Macro Systems, Inc., and Mathematica Policy Research, Inc., 1985. Pulls together information on components of and services associated with the program, and documents how they operate at specific centers and support agencies.
Contract Number: 99-4-805-75-64-01

Job Development for Dislocated Workers—CSR Incorporated, 1986. Provides Title III program operators with guidance regarding the technical issues entailed in the design and implementation of dislocated worker programs.
Contract Number: 99-5-2224-61-019-01

Job Displacement and Labor Market Mobility—University of Massachusetts, 1990. Examines labor market mobility of dislocated workers using an analysis of matching data from the 1984, 1986, and 1988 Displaced Worker Supplements to the Current Population Surveys of the same years.
Contract Number: 99-8-3481-75-085-01
NTIS Number: PB 90-218660/AS

Job Placement Systems for Older Workers—National Caucus and Center on Black Aged, Inc., 1987. Two volumes. Describes participant characteristics, services

provided, and employment outcomes for a sample of JTPA three percent set-aside programs. The study also provides 23 case studies of training and employment programs for older workers, and advice on designing and managing a job placement system for older workers.
Interagency agreement with the U.S. Department of Health and Human Services, Office of Human Development Services, Administration on Aging.
NTIS Number: PB 90-205311/AS

JTPA Title II-A Participants Who Were Receiving Public Assistance at Program Application: New Enrollees and Terminees During PY 1984—Westat Inc., 1986. Describes the new enrollees and terminees who were receiving public assistance at the time of entry into JTPA Title II-A programs.
Contract Number: 99-6-0584-75-083-01

JTPA Title II-A Participants Who Were School Dropouts at Program Application: Program Year 1986—Westat, 1988. Summarizes the characteristics and experiences of dropouts who participated in JTPA programs.
Contract Number: 99-6-0584-75-083-01

JTPA Title II-A and III Enrollments and Terminations During Program Year 1988—Westat, Inc., 1990. Summarizes the characteristics and experiences of persons who participated in training programs authorized under Title II-A and Title III of JTPA during PY 1988. Data were obtained from the Job Training Quarterly Summary.
Contract Number: 99-0-0584-75-013-01

The Jump Start to Language Power Program Pilot Study (Phase II: Gary Job Corps Center and Clements Job Corps Center)—Helen G. Cappleman, 1988. Compares Job Corps' Jump Start experimental reading program with the regular program, and offers evidence that the Jump Start program enhances corpsmembers' reading performance and attitude toward reading.
Contract Number: 99-6-4488-35-014-01

Kansas Nonmonetary Expert System Prototype (Unemployment Insurance Occasional Paper 90-1)—Evaluation Research Corporation, 1990. Reviews various steps involved in developing the Nonmonetary Expert System Prototype in Kansas.
Contract Number: 99-7-4646-04-142-01
NTIS Number: PB 90-232711

Labor Market Information: An Agenda for Congress—Northeast-Midwest Institute, 1988. Evaluates the adequacy of currently available labor market information as the basis for lawmaking and policy decisions.
Grant Number: 99-8-3436-75-003-02
NTIS Number: PB 91-111690/AS

Labor Market Information: A State Policymaker's Guide—Northeast-Midwest Institute, 1988. Describes and assesses labor market information sources and programs of interest to State policymakers.
Grant Number: 99-8-3436-75-003-02
NTIS Number: PB 91-111740

Launching JOBSTART: A Demonstration for Dropouts in the JTPA System—Manpower Demonstration Research Corporation, 1987. Describes the initial results of the JOBSTART demonstration in 13 sites, all of them funded primarily through the JTPA system.
Grant Number: 99-6-3356-75-003-02

Leadership in Appellate Administration: Successful State Unemployment Insurance Appellate Operations (Unemployment Insurance Occasional Paper 89-7)—U.S. Department of Labor, Unemployment Insurance Service, 1989. Presents findings of a project which reviewed 15 State UI appeals units to document the administrative practices and procedures used to promptly decide unemployment insurance appeals.
NTIS Number: PB 90-161183/AS

The Learning Enterprise—American Society for Training and Development, 1989. Summarizes information obtained from a 30-month research effort which explored public and private training practices. Summarizes diverse data that were obtained during the research effort.
Grant Number: 99-6-0705-75-079-02
NTIS Number: PB 89-218721/AS

Literacy Audit of Maintenance Workers—Interactive Training, Inc, 1990. Reviews findings of a national literacy audit of maintenance worker jobs in multifamily apartment complexes. Presents findings from mail surveys, site visits, and telephone interviews.
Contract Number: 99-8-4704-75-077-01
NTIS Number: PB 90-218785/AS

Low-Wage Jobs and Workers: Trends and Options for Change—Institute for Women's Policy Research for Displaced Homemakers Network, 1989. Analyzes the characteristics of low-wage jobs and workers by industry, occupation, ethnicity, gender, family status, and other factors over a 10-year period from 1975-1984.
Contract Number: 99-8-2438-75-081-01
NTIS Number: PB 90-204595/AS

Measuring the Effect of CETA on Youth and the Economically Disadvantaged—The Urban Institute, 1984. De-

scribes research using the Continuous Longitudinal Manpower Survey (CLMS) to measure the effect of employment and training programs on youth and the economically disadvantaged.
Contract Number: 20-11-82-19

Measuring the Performance of Job Training Programs in Reducing Welfare Dependency—New York City Department of Employment, 1985. Studies the impact of job training programs on reducing welfare grants.
Contract Number: 21-36-82-04

A Micro Assessment of the Determinants of Productivity in the U.S. Manufacturing Industry—Massachusetts Institute of Technology, 1985. Assesses industry-related productivity factors beyond the control of workers.
Contract Number: 21-25-82-09
NTIS Number: PB 86-154028/AS

Micro Consequences of Macro Policies: Employment Effects of Federal Business Tax Incentives—Duke University, 1985. Analyzes varying effects of Federal taxes across industries and geographic location.
Contract Number: 21-37-82-19

A Net Impact Analysis of Differential Earnings of CETA Participants and Current Population Survey Matched Comparison Groups—College of William and Mary, Department of Economics, 1982. Analyzes the pattern of earnings of CETA participants entering adult-oriented programs in FY 1976.
Grant Number: 24-51-79-02

New Jersey Unemployment Insurance Reemployment Demonstration Project (Unemployment Insurance Occasional Paper 89-3)—New Jersey Department of Labor and Mathematica Policy Research, Inc., 1989. Details the results of a demonstration that provided three different packages of reemployment services to UI recipients to accelerate their return to work.
Cooperative Agreement Number: 99-2325-04-055-05
NTIS Number: PB 90-216714/AS

On the Use of Expectations Data in Micro Surveys: The Case of Retirement—The Ohio State University, 1985. Tests the accuracy of a retirement prediction model as compared with workers' self-prediction of age of retirement.
Contract Number: 82-39-72-21
NTIS Number: PB 85-235497/AS

Operating Effective Reemployment Strategies for Dislocated Workers—CSR Incorporated, 1986. Addresses the question of what training and employment interventions work best for dislocated workers.
Contract Number: 99-5-2224-61-019-01

Pathways to the Future, Volume 6: A Report on the National Longitudinal Surveys of Labor Market Experience of Youth in 1984—The Ohio State University, 1986. Describes youth training and employment experiences with the Comprehensive Employment and Training Act programs and explores effects of education and training on earnings.
Contract Number: 82-39-72-21
NTIS Number: PB 86-198918/AS

The Potential Role of Voluntarism in JTPA—The Urban Institute, 1989. Reviews literature and presents information from informal interviews with individuals representing national agencies, associations, and selected JTPA Service Delivery Areas to provide insight into the most promising areas for volunteer involvement in JTPA and methods for and sources of recruitment of volunteers.
Contract Number: 99-9-0421-75-081-01
NTIS Number: PB 91-212365

Practical Guidance for Strengthening Private Industry Councils—CSR, Inc., 1990. Reviews the elements which make an effective Private Industry Council (PIC) and strategies used by effective PICs in relating their JTPA programs to other organizations and segments of their communities.
Contract Number: 99-8-2224-75-078-01
NTIS Number: PB 91-219535/AS

Productive America—The National Council for Occupational Education, 1990. Focuses on two-year colleges and the role they play in improving workforce productivity and increasing national economic vitality. Examines potential problems of special populations of the future work force and proposes models for defining workforce needs of employers and for improving two-year college education delivery systems to meet employer needs.
Grant Number: 99-9-3513-75-013-02
NTIS Number: PB 90-226648/AS

Productivity Effects of Worker Participation in Decision-Making and Profits: Statistical Estimation from the Example of Worker-Owned Firms in Plywood Manufacturing—University of Idaho, 1984. Compares productivity of employee-owned and managed plywood plants with similar plants having traditional ownership and management.
Contract Number: 21-16-80-28
NTIS Number: PB 86-144797/AS

A Profile of JTPA Enrollments—Westat, Inc., 1989. Presents information from the longitudinal interview component of the Job Training Quarterly Survey to describe characteristics of persons served by JTPA and to compare these individuals with subgroups of participants, with persons served by earlier programs, and with the population eligible for JTPA.
Contract Number: 99-6-0584-75-083-01

Referral of Long-Term Unemployment Insurance (UI) Claimants to Reemployment Services (Unemployment Insurance Occasional Paper 89-2)—Macro Systems, Inc., 1989. Addresses the feasibility of identifying and targeting services to long-term UI claimants who need reemployment services and have reached the later stages of their UI benefit period.
Contract Number: 99-6-0576-04-096-01
NTIS Number: PB 89-153100/AS

A Report Card on Special Education: International Center for the Disabled Survey III—Louis Harris and Associates for the International Center for the Disabled, 1989. Presents results of a survey of public school educators, handicapped students, and parents of handicapped students designed to determine how well the Nation's special education system serves the needs of handicapped students.
Grant Number: 99-7-3396-98-021-02

Report on Benefits to Employers Providing On-Site Child Care Centers, Flexible Spending Accounts for Dependent Child Care Costs or Child Care Resource and Referral Services—State of Wisconsin, 1989. Contains selected data related to *Wisconsin's Response to Families and Work* report.
Contract Number: 99-8-3482-75-086-01
NTIS Number: PB 90-218728

Review of Participant Characteristics and Program Outcomes for the First Eleven Quarters of JTPA Operation (October 1983-June 1986)—Westat, Inc., 1987. Identifies patterns in JTPA Titles II-A and III program participation and outcomes over 11 quarters, starting with Transition Year 1984.
Contract Number: 99-6-0584-75-083-01

The Secretary's Seminars on Unemployment Insurance (Unemployment Insurance Occasional Paper 89-1)—Mathematica Policy Research, Inc., 1989. Contains background documents and summaries of discussions at three Secretary's seminars held in 1988 which addressed: the widening gap between total and insured unemployment; the tradeoffs between the income maintenance and reemployment goals of the UI system as they pertain to choosing potential UI duration policies; and alternative uses of UI.
Contract Numbers: 99-6-0805-04-097-01
99-7-0805-04-138-01
99-7-3434-04-006-05
NTIS Number: PB 90-216649/AS

Sectoral Change and Worker Displacement—National Bureau of Economic Research, 1990. Provides a comprehensive view of worker displacement and its role in the evolution of unemployment patterns over the past 25 years.
Contract Number: 99-8-4518-75-083-01
NTIS Number: PB 90-21923/AS

Shifts in Income Segmentation by Education Level—Boston University, 1989. Uses Current Population Survey data for May 1973 and March 1987 to analyze the changing inequality of wage rates and of shifts in the education-income stratification of workers.
Contract Number: 99-8-2152-75-081-01
NTIS Number: PB 90-219221/AS

Short-Time Compensation: A Handbook of Basic Source Material—Department of Labor, Employment and Training Administration, 1987. Provides a ready reference for persons interested in short-time compensation programs.
NTIS Number: PB 88-163589

Study of Selected Aspects of Dislocated Worker Programs: Final Report—CSR Incorporated, 1986. Summarizes the principal findings from 15 case studies of JTPA Title III projects.
Contract Number: 99-5-2224-61-019-01

Study of State Management of the Job Training Partnership Act—National Governors' Association, 1988. Examines how States have used the policy and management tools available under JTPA to exert influence on the delivery of employment and training services throughout the Nation. The study focuses on Title II-A programs and the Wagner-Peyser 10 percent set-aside.
Grant Number: 99-6-2189-77-064-01

Summary of the JTLS Data for JTPA Title II-A Enrollments and Terminations During Program Year 1984—Westat, Inc., 1985. Summarizes the characteristics and experiences of persons who participated in training programs authorized under Title II-A of JTPA. Data were obtained from the Job Training Longitudinal Survey (JTLS).
Contract Number: 99-3-0584-77-137

Summary of the JTLS Data for JTPA Title II-A and III Enrollments and Terminations During Program Year 1985—Westat, Inc., 1986. Summarizes the characteristics and experiences of persons who participated in training programs authorized under Title II-A and Title III of JTPA. Data were obtained from the JTLS.
Contract Number: 99-6-0584-75-083-01

Summary of the JTQS Data for JTPA Title II-A and III Enrollments and Terminations During PY 1986—Westat, Inc., 1987. Summarizes the characteristics and experiences of persons who participated in training programs authorized under Title II-A and Title III of JTPA. Data were obtained from the Job Training Quarterly Survey (JTQS), formerly called the JTLS.
Contract Number: 99-6-0584-75-083-01

Summary of the JTQS Data for JTPA Title II-A and III Enrollments and Terminations During PY 1987—Westat, Inc., 1988. Summarizes the characteristics and experiences of persons who participated in training programs authorized under Title II-A and Title III of JTPA during PY 1987. Data were obtained from the JTQS.
Contract Number: 99-6-0584-75-083-01

Summary of Net Impact Results—Westat, Inc., 1984. Summarizes the research done by Westat on the estimation of the net impact of CETA on the post-program earnings of participants.
Contract Number: 23-24-75-07

Summer Training and Education Program (STEP): Report on the 1986 Experience—Public/Private Ventures, 1987. Describes the results of the STEP Program in five demonstration cities in 1986.
Grant Number: 99-6-3372-75-004-02

The Temporary Help Supply Industry in the U.S.A.—Jewish Employment and Vocational Service, 1989. Focuses on the changing programs and policies in the temporary help supply industry. Considers occupational trends, pay and benefits, recruiting and retention, and industry's ability to provide employment for several targeted groups.
Contract Number: 99-8-3146-75-072-01
NTIS Number: PB 90-218694

Training Partnerships: Linking Employers & Providers—American Society for Training and Development, 1989. Summarizes research conducted by the American Society for Training and Development about partnerships in training and provides an overview of various aspects of training published in four ASTD reports.
Grant Number: 99-6-0705-75-079-02

UI Research Exchange (Unemployment Insurance Occasional Paper 88-2)—Department of Labor, Employment and Training Administration, 1988. Contains a variety of UI research information, including summaries of projects planned, in progress, and completed; financial and legislative developments; a paper on quality control and a paper which provides an analysis of benefit payments for positive and negative balance employers, by industry, for Fiscal Years 1983 and 1986.
NTIS Number: PB 89-160030/AS

UI Research Exchange (Unemployment Insurance Occasional Paper 89-4)—Department of Labor, Employment and Training Administration, 1989. Contains a variety of UI research information, including three papers on: developing and implementing a form of advanced computer software, called expert systems, in a UI operating environment; the probability that a State unemployment reserve fund will remain solvent; and the work search error claimant profile.
NTIS Number: PB 90-11425/AS

Wisconsin's Response to Families and Work—State of Wisconsin, 1989. Includes a comparison of three types of child care benefits used in the State of Wisconsin. These include child care centers linked with employer establishments; an employee benefit enabling pre-tax dollars to be used to purchase child care services; and a child care resource and referral service. Authors describe each model and assess results.
Contract Number: 99-8-3482-75-086-01
NTIS Number: PB 90-218728

Women's Relative Pay: The Factors That Shape Current and Future Trends—The Urban Institute, 1989. Identifies factors that contribute to the improvement in women's pay relative to that of men in the 1980s; analyzes the potential of high-wage, high-growth jobs for increasing women's relative pay; and provides an analysis of the influence of women's intermittent labor force participation as it relates to relative pay.
Contract Number: 99-8-0421-75-066-01
NTIS Number: PB 90-218710/AS

Women's Work, Men's Work: Sex Segregation on the Job—National Academy of Sciences, 1986. Describes wage differentials and occupational segregation of men and women and looks into causes and possible short- and long-range solutions.
Interagency Agreement
National Academy Press Publication

Work Search Among Unemployment Insurance Claimants: An Investigation of Some Effects of State Rules and

Enforcement—Mathematica Policy Research, Inc., 1988. Looks at the effects of work-search rules on the work-search behavior of UI claimants, their job-finding success, and payment error rates.
Contract Number: J-9-M-5-0052
NTIS Number: PB 89-160022/AS

"*Worker Displacement in a Period of Rapid Job Expansion: 1983-1987*"—Bureau of Labor Statistics, 1989. Presents findings of a survey of displaced workers which was conducted by the Bureau of the Census. Notes that since the mid-1980s, fewer workers were displaced from their jobs and the reemployment rate among them was higher.
Monthly Labor Review, May 1990
Interagency Agreement

Workforce 2000: Work and Workers for the Twenty-First Century—Hudson Institute, 1987. Identifies key trends that will characterize the remainder of the 20th century, changes in the composition of the work force and of jobs, and the major policy challenges ahead.
Grant Number: 99-6-3370-75-002-02

Workplace Basics: The Skills Employers Want—The American Society for Training and Development, 1988. Describes six basic skill groups, in addition to reading, writing, and computation, which employers look for in successful workers.
Grant Number: 99-6-0705-079-02
NTIS Number: PB 92-116276

STATISTICAL APPENDIX

Statistical Appendix Contents

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EXPLANATORY NOTES AND HISTORICAL COMPARABILITY OF DATA

This narrative provides explanatory notes for the A, B, C, and D tables of the statistical appendix and explains factors affecting the historical comparability of data.

Introduction

Statistics in the A, B, and C tables of this statistical appendix are compiled from two major sources: (1) household interviews, and (2) reports from employers.

Data in the A tables are based on household interviews which are obtained from a sample survey of the population 16 years of age and over. The survey is conducted each month by the Bureau of the Census for the U.S. Department of Labor's Bureau of Labor Statistics (BLS) and provides comprehensive data on the labor force, the employed, and the unemployed, including such characteristics as age, sex, race, family relationship, marital status, occupation, and industry attachment. The survey also provides data on the characteristics and past work experience of those not in the labor force. The information is collected by trained interviewers from a sample of about 60,000 households, representing 729 areas in 1,973 counties and independent cities, with coverage in 50 States and the District of Columbia. The data collected are based on the activity or status reported for the calendar week including the 12th of the month.

Data in the B and C tables are based on establishment records which are compiled each month from mail questionnaires by the Bureau of Labor Statistics, in cooperation with State agencies. The establishment survey is designed to provide industry information on nonfarm wage and salary employment, average weekly earnings for the Nation, States, and metropolitan areas. The employment, hours, and earnings series are currently based on payroll reports from a sample of over 350,000 establishments employing over 41 million nonfarm wage and salary workers. The data relate to all workers, full- or part-time, who receive pay during the payroll period which includes the 12th day of the month.

Data in the D tables present projections of the U.S. labor force for the period 1990-2005. The Bureau of Labor Statistics offers three possible labor force outlooks, based on low-, moderate-, and high-growth assumptions. Although several tables presented in this publication focus on the middle of the three alternatives, which assumes moderate growth, this should not be interpreted as suggesting any greater expectation that the moderate-growth scenario is more likely.

Relation Between the Household and Establishment Series

The household and establishment data supplement one another, each providing significant types of information that the other cannot suitably supply. Population characteristics, for example, are readily obtained only from the household survey whereas detailed industrial classifications can be reliably derived only from establishment reports.

Data from these two sources differ from each other because of differences in definitions and coverage, sources of information, methods of collection, and estimating procedures. Sampling variability and response errors are additional reasons for discrepancies. The major factors which have a differential effect on the levels and trends of the two series are employment, hours of work, and earnings. These are described below.

Employment

A number of factors must be taken into consideration when reviewing statistics on employment: coverage, multiple jobholding, and unpaid absences from jobs.

Coverage. The household survey definition of employment comprises wage and salary workers (including domestics and other private household workers), self-employed persons, and unpaid workers who worked 15 hours or more during the survey week in family-operated enterprises. Employment in both agricultural and nonagricultural industries is included. The payroll survey covers only wage and salary employees on the payrolls of nonfarm establishments.

Multiple jobholding. The household survey provides information on the work status of the population without duplication, since each person is classified as employed, unemployed, or not in the labor force. Employed persons holding more than one job are counted only once and are classified according to the job at which they worked the greatest number of hours during the survey week. In the figures based on establishment reports, persons who worked in more than one establishment during the reporting period are counted each time their names appear on payrolls.

Unpaid absences from jobs. The household survey includes among the employed all civilians who had jobs but were not at work during the survey week—that is, were not working but had jobs from which they were temporarily absent because of illness, bad weather, vacation, labor-management disputes, or because they were taking time off for various other reasons, even if they were not paid by their employers for the time off. In the figures based on payroll reports, persons on leave paid for by the company are included, but not those on leave without pay for the entire payroll period.

For a comprehensive discussion of the differences between household and establishment survey employment data, see Gloria P. Green's article, "Comparing Employment Estimates from Household and Payroll Surveys," *Monthly Labor Review*, December 1969.

Hours of Work

The household survey measures hours actually worked whereas the payroll survey measures hours paid for by employers. In the household survey data, all persons with a job but not at work are excluded from the hours distributions and the computations of average hours. In the payroll survey, production or nonsupervisory employees on paid vacation, paid holiday, or paid sick leave are included and assigned the number of hours for which they were paid during the reporting period.

Earnings

The household survey measures median earnings of wage and salary workers in all occupations and industries in both the private and public sectors. Data refer to the usual earnings received from the worker's sole or primary job. Data from the establishment survey generally refer to average earnings of production and related workers in mining and manufacturing, construction workers in construction, and nonsupervisory employees in the private service-producing industries. For a comprehensive discussion of the household survey earnings series, see *Technical Description of the Quarterly Data on Weekly Earnings from the Current Population Survey*, BLS Bulletin 2113.

Historical Comparability

This section describes factors that affect the historical comparability of data.

Change in Lower Age Limit

The lower age limit for official statistics on the labor force, employment, and unemployment was raised from 14 to 16 years of age in January 1967. Insofar as possible, historical series have been revised to provide consistent information based on the population 16 years and over. For a detailed discussion of this and other definitional changes introduced at that time, including estimates of their effect on the various series, see "New Definitions for Employment and Unemployment," *Employment and Earnings and Monthly Report on the Labor Force*, February 1967.

Noncomparability of Labor Force Levels

In addition to the changes introduced in 1967, several other periods of noncomparability occurred in the labor force data. Major periods since 1960 are as follows:

(1) Beginning in 1960, the inclusion of Alaska and Hawaii resulted in an increase of about 500,000 in the population and about 300,000 in the labor force. Four-fifths of this increase was in nonagricultural employment; other labor force categories were not appreciably affected. (2) Beginning in 1962, the introduction of data from the 1960 census reduced the population by about 50,000 and labor force and employment by about 200,000; unemployment totals were virtually unchanged. (3) Beginning in 1972, information from the 1970 census was introduced into the estimation procedures, increasing the population by about 800,000; labor force and employment totals were raised by a little more than 300,000 and unemployment levels and rates were essentially unchanged. (4) A subsequent population adjustment based on the 1970 census was introduced in March 1973. This adjustment added 60,000 to the labor force and employment totals; unemployment levels and rates were not significantly affected.

Beginning in January 1978, the introduction of an expansion in the sample and revisions in the estimation procedures resulted in an increase of about 250,000 in the civilian labor force and employment totals; unemployment levels and rates were essentially unchanged.

Beginning in January 1982, the second-stage ratio adjustment methodology was changed in the Current Population Survey estimation procedure. In addition, current population estimates used in the second-stage estimation procedure are derived from information obtained from the 1980 census, rather than the 1970 census. This change caused substantial increases in total population and estimates of persons in all labor force categories. Rates for labor force characteristics, however, remained virtually unchanged. Some 30,000 labor force series were adjusted back to 1970 to avoid major breaks in series.

Beginning in January 1986, the introduction of revised population controls added 400,000 to the population and labor force estimates and 350,000 to the employment total. Unemployment levels and rates were not significantly affected.

Labor Force Projections

The D tables in this publication present projections of the U.S. labor force for the period 1990-2005. The U.S. Department of Labor's Bureau of Labor Statistics offers three possible labor force outlooks, based on low-, moderate-, and high-growth assumptions. Although several tables presented in this publication focus on the middle of the three alternatives, which assumes moderate growth, this should not be interpreted as suggesting any greater expectation that the moderate-growth scenario is more likely. Past evaluations have shown that some elements

of the projections will follow one growth path, while other variables will follow another. Some assumptions will certainly fall outside the range shown in the tables. It is impossible to know which of the three outcomes is more likely, either completely or for any particular element in the projections.

Alternative Assumptions

Users of the Bureau of Labor Statistics projections should keep in mind that economic and employment projections are filled with uncertainty. Many assumptions must be made regarding the probable behavior of a broad range of variables that will affect the future course of the U.S. economy. We may be reasonably certain about some of these assumptions, such as the size of the youth population cohort. Other assumptions, such as net annual immigration which has a significant effect on population estimates, are subject to a considerable amount of uncertainty. BLS alternative projections for immigration range from 500,000 persons to 800,000 persons annually over the 1990–2005 period . The projection of women's labor force participation rates—which has been a major source of error in previous projections—assumes a range of 59.8 percent to 66.1 percent in the current alternative scenarios.

What effects do these alternative assumptions have on the projection results? Projected labor force growth to the year 2005 ranges from 0.9 percent to 1.5 percent annually, resulting in a difference of 14 million persons in 2005.

Table A-1. Employment status of the civilian noninstitutional population 16 years and over, 1960–91 annual averages
(Numbers in thousands)

Year	Civilian noninstitutional population	Civilian labor force							Not in labor force
		Total	Percent of population	Employed			Unemployed		
				Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
1960[a]	117,245	69,628	59.4	65,778	5,458	60,318	3,852	5.5	47,617
1961	118,771	70,459	59.3	65,746	5,200	60,546	4,714	6.7	48,312
1962[a]	120,153	70,614	58.8	66,702	4,944	61,759	3,911	5.5	49,539
1963	122,416	71,833	58.7	67,762	4,687	63,076	4,070	5.7	50,583
1964	124,485	73,091	58.7	69,305	4,523	64,782	3,786	5.2	51,394
1965	126,513	74,455	58.9	71,088	4,361	66,726	3,366	4.5	52,058
1966	128,058	75,770	59.2	72,895	3,979	68,915	2,875	3.8	52,288
1967	129,874	77,347	59.6	74,372	3,844	70,527	2,975	3.8	52,527
1968	132,028	78,737	59.6	75,920	3,817	72,103	2,817	3.6	53,291
1969	134,335	80,734	60.1	77,902	3,606	74,296	2,832	3.5	53,602
1970	137,085	82,771	60.4	78,678	3,463	75,215	4,093	4.9	54,315
1971	140,216	84,382	60.2	79,367	3,394	75,972	5,016	5.9	55,834
1972[a]	144,126	87,034	60.4	82,153	3,484	78,669	4,882	5.6	57,091
1973[a]	147,096	89,429	60.8	85,064	3,470	81,594	4,365	4.9	57,667
1974	150,120	91,949	61.3	86,794	3,515	83,279	5,156	5.6	58,171
1975	153,153	93,775	61.2	85,846	3,408	82,438	7,929	8.5	59,377
1976	156,150	96,158	61.6	88,752	3,331	85,421	7,406	7.7	59,991
1977	159,033	99,009	62.3	92,017	3,283	88,734	6,991	7.1	60,025
1978[a]	161,910	102,251	63.2	96,048	3,387	92,661	6,202	6.1	59,659
1979	164,863	104,962	63.7	98,824	3,347	95,477	6,137	5.8	59,900
1980	167,745	106,940	63.8	99,303	3,364	95,938	7,637	7.1	60,806
1981	170,130	108,670	63.9	100,397	3,368	97,030	8,273	7.6	61,460
1982	172,271	110,204	64.0	99,526	3,401	96,125	10,678	9.7	62,067
1983	174,215	111,550	64.0	100,834	3,383	97,450	10,717	9.6	62,665
1984	176,383	113,544	64.4	105,005	3,321	101,685	8,539	7.5	62,839
1985	178,206	115,461	64.8	107,150	3,179	103,971	8,312	7.2	62,744
1986[a]	180,587	117,834	65.3	109,597	3,163	106,434	8,237	7.0	62,752
1987	182,753	119,865	65.6	112,440	3,208	109,232	7,425	6.2	62,888
1988	184,613	121,669	65.9	114,968	3,169	111,800	6,701	5.5	62,944
1989	186,393	123,869	66.5	117,342	3,199	114,142	6,528	5.3	62,523
1990	188,049	124,787	66.4	117,914	3,186	114,728	6,874	5.5	63,262
1991	189,765	125,303	66.0	116,877	3,233	113,644	8,426	6.7	64,462

a Not strictly comparable with prior years. For an explanation, see "Note on Historical Comparability" at the beginning of this Appendix.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table A-2. Employment status of the civilian noninstitutional population 16 years and over by sex, 1981–91 annual averages (Numbers in thousands)

Year	Civilian noninstitutional population	Civilian labor force							Not in labor force
		Total	Percent of population	Employed			Unemployed		
				Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
	Men								
1981	80,511	61,974	77.0	57,397	2,700	54,697	4,577	7.4	18,537
1982	81,523	62,450	76.6	56,271	2,736	53,534	6,179	9.9	19,073
1983	82,531	63,047	76.4	56,787	2,704	54,083	6,260	9.9	19,484
1984	83,605	63,835	76.4	59,091	2,668	56,423	4,744	7.4	19,771
1985	84,469	64,411	76.3	59,891	2,535	57,356	4,521	7.0	20,058
1986[a]	85,798	65,422	76.3	60,892	2,511	58,381	4,530	6.9	20,376
1987	86,899	66,207	76.2	62,107	2,543	59,564	4,101	6.2	20,692
1988	87,857	66,927	76.2	63,273	2,493	60,780	3,655	5.5	20,930
1989	88,762	67,840	76.4	64,315	2,513	61,802	3,525	5.2	20,923
1990	89,650	68,234	76.1	64,435	2,507	61,928	3,799	5.6	21,417
1991	90,552	68,411	75.5	63,593	2,552	61,041	4,817	7.0	22,141
	Women								
1981	89,618	46,696	52.1	43,000	667	42,333	3,696	7.9	42,922
1982	90,748	47,755	52.6	43,256	665	42,591	4,499	9.4	42,993
1983	91,684	48,503	52.9	44,047	680	43,367	4,457	9.2	43,181
1984	92,778	49,709	53.6	45,915	653	45,262	3,794	7.6	43,068
1985	93,736	51,050	54.5	47,259	644	46,615	3,791	7.4	42,686
1986[a]	94,789	52,413	55.3	48,706	652	48,054	3,707	7.1	42,376
1987	95,853	53,658	56.0	50,334	666	49,668	3,324	6.2	42,195
1988	96,756	54,742	56.6	51,696	676	51,020	3,046	5.6	42,014
1989	97,630	56,030	57.4	53,027	687	52,341	3,003	5.4	41,601
1990	98,399	56,554	57.5	53,479	679	52,800	3,075	5.4	41,845
1991	99,214	56,893	57.3	53,284	682	52,602	3,609	6.3	42,321

[a] Not strictly comparable with prior years. For an explanation, see "Note on Historical Comparability" at the beginning of this Appendix.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table B-1. Employees on nonfarm payrolls, total and goods-producing industries, 1960–91 annual averages (In thousands)

Year	Total	Total private	Goods-producing			
			Total	Mining	Construction	Manufacturing
1960	54,189	45,836	20,434	712	2,926	16,796
1961	53,999	45,404	19,857	672	2,859	16,326
1962	55,549	46,660	20,451	650	2,948	16,853
1963	56,653	47,429	20,640	635	3,010	16,995
1964	58,283	48,686	21,005	634	3,097	17,274
1965	60,765	50,689	21,926	632	3,232	18,062
1966	63,901	53,116	23,158	627	3,317	19,214
1967	65,803	54,413	23,308	613	3,248	19,447
1968	67,897	56,058	23,737	606	3,350	19,781
1969	70,384	58,189	24,361	619	3,575	20,167
1970	70,880	58,325	23,578	623	3,588	19,367
1971	71,214	58,331	22,935	609	3,704	18,623
1972	73,675	60,341	23,668	628	3,889	19,151
1973	76,790	63,058	24,893	642	4,097	20,154
1974	78,265	64,095	24,794	697	4,020	20,077
1975	76,945	62,259	22,600	752	3,525	18,323
1976	79,382	64,511	23,352	779	3,576	18,997
1977	82,471	67,344	24,346	813	3,851	19,682
1978	86,697	71,026	25,585	851	4,229	20,505
1979	89,823	73,876	26,461	958	4,463	21,040
1980	90,406	74,166	25,658	1,027	4,346	20,285
1981	91,156	75,126	25,497	1,139	4,188	20,170
1982	89,566	73,729	23,813	1,128	3,905	18,781
1983	90,200	74,330	23,334	952	3,948	18,434
1984	94,496	78,472	24,727	966	4,383	19,378
1985	97,519	81,125	24,859	927	4,673	19,260
1986	99,525	82,832	24,558	777	4,816	18,965
1987	102,200	85,190	24,708	717	4,967	19,024
1988	105,536	88,150	25,173	713	5,110	19,350
1989	108,329	90,550	25,322	693	5,187	19,442
1990	109,782	91,478	24,960	710	5,133	19,117
1991	108,310	89,930	23,830	691	4,685	18,455

Note: Data presented in Table B-1 are from the establishment survey. These estimates are currently projected from March 1991 benchmark levels. When more recent benchmark data are introduced, data beginning April 1991 are subject to revision.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table B-2. Employees on nonfarm payrolls of service-producing industries, 1960–91 annual averages (In thousands)

Year	Service-producing industries								
	Total	Transportation, public utilities	Wholesale trade	Retail trade	Finance, insurance and real estate	Services	Government		
							Federal	State	Local
1960	33,755	4,004	3,153	8,238	2,628	7,378	2,270	1,536	4,547
1961	34,142	3,903	3,142	8,195	2,688	7,619	2,279	1,607	4,708
1962	35,098	3,906	3,207	8,359	2,754	7,982	2,340	1,668	4,881
1963	36,013	3,903	3,258	8,520	2,830	8,277	2,358	1,747	5,121
1964	37,278	3,951	3,347	8,812	2,911	8,660	2,348	1,856	5,392
1965	38,839	4,036	3,477	9,239	2,977	9,036	2,378	1,996	5,700
1966	40,743	4,158	3,608	9,637	3,058	9,498	2,564	2,141	6,080
1967	42,495	4,268	3,700	9,906	3,185	10,045	2,719	2,302	6,371
1968	44,160	4,318	3,791	10,308	3,337	10,567	2,737	2,442	6,660
1969	46,023	4,442	3,919	10,785	3,512	11,169	2,758	2,533	6,904
1970	47,302	4,515	4,006	11,034	3,645	11,548	2,731	2,664	7,158
1971	48,278	4,476	4,014	11,338	3,772	11,797	2,696	2,747	7,437
1972	50,007	4,541	4,127	11,822	3,908	12,276	2,684	2,859	7,790
1973	51,897	4,656	4,291	12,315	4,046	12,857	2,663	2,923	8,146
1974	53,471	4,725	4,447	12,539	4,148	13,441	2,724	3,039	8,407
1975	54,345	4,542	4,430	12,630	4,165	13,892	2,748	3,179	8,758
1976	56,030	4,582	4,562	13,193	4,271	14,551	2,733	3,273	8,865
1977	58,125	4,713	4,723	13,792	4,467	15,302	2,727	3,377	9,023
1978	61,113	4,923	4,985	14,556	4,724	16,252	2,753	3,474	9,446
1979	63,363	5,136	5,221	14,972	4,975	17,112	2,773	3,541	9,633
1980	64,748	5,146	5,292	15,018	5,160	17,890	2,866	3,610	9,765
1981	65,659	5,165	5,376	15,172	5,298	18,619	2,772	3,640	9,619
1982	65,753	5,082	5,296	15,161	5,341	19,036	2,739	3,640	9,458
1983	66,866	4,954	5,286	15,595	5,468	19,694	2,774	3,662	9,434
1984	69,769	5,159	5,574	16,526	5,689	20,797	2,807	3,734	9,482
1985	72,660	5,238	5,736	17,336	5,955	21,999	2,875	3,832	9,687
1986	74,967	5,255	5,774	17,909	6,283	23,053	2,899	3,893	9,901
1987	77,492	5,372	5,865	18,462	6,547	24,235	2,943	3,967	10,100
1988	80,363	5,527	6,055	19,077	6,649	25,669	2,971	4,076	10,339
1989	83,007	5,644	6,221	19,549	6,695	27,120	2,988	4,182	10,609
1990	84,822	5,808	6,200	19,677	6,729	28,103	3,085	4,305	10,914
1991	84,480	5,772	6,069	19,259	6,678	28,323	2,966	4,346	11,067

Note: Data presented in Table B-2 are from the establishment survey. These estimates are currently projected from March 1991 benchmark levels. When more recent benchmark data are introduced, data beginning April 1991 are subject to revision.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table C-1. Average hours and earnings of production or nonsupervisory workers[a] on private nonfarm payrolls by major industry, 1964–91 annual averages

Year	Total private[a]			Mining			Construction		
	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
1964	38.7	$2.36	$91.33	41.9	$2.81	$117.74	37.2	$3.55	$132.06
1965	38.8	2.46	95.45	42.3	2.92	123.52	37.4	3.70	138.38
1966	38.6	2.56	98.82	42.7	3.05	130.24	37.6	3.89	146.26
1967	38.0	2.68	101.84	42.6	3.19	135.89	37.7	4.11	154.95
1968	37.8	2.85	107.73	42.6	3.35	142.71	37.3	4.41	164.49
1969	37.7	3.04	114.61	43.0	3.60	154.80	37.9	4.79	181.54
1970	37.1	3.23	119.83	42.7	3.85	164.40	37.3	5.24	195.45
1971	36.9	3.45	127.31	42.4	4.06	172.14	37.2	5.69	211.67
1972	37.0	3.70	136.90	42.6	4.44	189.14	36.5	6.06	221.19
1973	36.9	3.94	145.39	42.4	4.75	201.40	36.8	6.41	235.89
1974	36.5	4.24	154.76	41.9	5.23	219.14	36.6	6.81	249.25
1975	36.1	4.53	163.53	41.9	5.95	249.31	36.4	7.31	266.08
1976	36.1	4.86	175.45	42.4	6.46	273.90	36.8	7.71	283.73
1977	36.0	5.25	189.00	43.4	6.94	301.20	36.5	8.10	295.65
1978	35.8	5.69	203.70	43.4	7.67	332.88	36.8	8.66	318.69
1979	35.7	6.16	219.91	43.0	8.49	365.07	37.0	9.27	342.99
1980	35.3	6.66	235.10	43.3	9.17	397.06	37.0	9.94	367.78
1981	35.2	7.25	255.20	43.7	10.04	438.75	36.9	10.82	399.26
1982	34.8	7.68	267.26	42.7	10.77	459.88	36.7	11.63	426.82
1983	35.0	8.02	280.70	42.5	11.28	479.40	37.1	11.94	442.97
1984	35.2	8.32	292.86	43.3	11.63	503.58	37.8	12.13	458.51
1985	34.9	8.57	299.09	43.4	11.98	519.93	37.7	12.32	464.46
1986	34.8	8.76	304.85	42.2	12.46	525.81	37.4	12.48	466.75
1987	34.8	8.98	312.50	42.4	12.54	531.70	37.8	12.71	480.44
1988	34.7	9.28	322.02	42.3	12.80	541.44	37.9	13.08	495.73
1989	34.6	9.66	334.24	43.0	13.26	570.18	37.9	13.54	513.17
1990	34.5	10.01	345.35	44.1	13.68	603.29	38.2	13.77	526.01
1991	34.3	10.33	354.32	44.4	14.18	629.59	38.1	13.99	533.02

See footnotes at end of table.

Table C-1. Average hours and earnings of production or nonsupervisory workers[a] on private nonfarm payrolls by major industry, 1964–91 annual averages (continued)

Year	Manufacturing				Transportation and public utilities			Wholesale trade		
	Weekly hours	Hourly earnings	Hourly earnings, excluding overtme	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
1964	40.7	$2.53	$2.43	$102.97	41.1	$2.89	$118.78	40.7	$2.52	$102.56
1965	41.2	2.61	2.50	107.53	41.3	3.03	125.14	40.8	2.60	106.08
1966	41.4	2.71	2.59	112.19	41.2	3.11	128.13	40.7	2.73	111.11
1967	40.6	2.82	2.71	114.49	40.5	3.23	130.82	40.3	2.87	115.66
1968	40.7	3.01	2.88	122.51	40.6	3.42	138.85	40.1	3.04	121.90
1969	40.6	3.19	3.05	129.51	40.7	3.63	147.74	40.2	3.23	129.85
1970	39.8	3.35	3.23	133.33	40.5	3.85	155.93	39.9	3.43	136.86
1971	39.9	3.57	3.45	142.44	40.1	4.21	168.82	39.4	3.64	143.42
1972	40.5	3.82	3.66	154.71	40.4	4.65	187.86	39.4	3.85	151.69
1973	40.7	4.09	3.91	166.46	40.5	5.02	203.31	39.2	4.07	159.54
1974	40.0	4.42	4.25	176.80	40.2	5.41	217.48	38.8	4.38	169.94
1975	39.5	4.83	4.67	190.79	39.7	5.88	233.44	38.6	4.72	182.19
1976	40.1	5.22	5.02	209.32	39.8	6.45	256.71	38.7	5.02	194.27
1977	40.3	5.68	5.44	228.90	39.9	6.99	278.90	38.8	5.39	209.13
1978	40.4	6.17	5.91	249.27	40.0	7.57	302.80	38.8	5.88	228.14
1979	40.2	6.70	6.43	269.34	39.9	8.16	325.58	38.8	6.39	247.93
1980	39.7	7.27	7.02	288.62	39.6	8.87	351.25	38.4	6.95	266.88
1981	39.8	7.99	7.72	318.00	39.4	9.70	382.18	38.5	7.55	290.68
1982	38.9	8.49	8.25	330.26	39.0	10.32	402.48	38.3	8.08	309.46
1983	40.1	8.83	8.52	354.08	39.0	10.79	420.81	38.5	8.54	328.79
1984	40.7	9.19	8.82	374.03	39.4	11.12	438.13	38.5	8.88	341.88
1985	40.5	9.54	9.16	386.37	39.5	11.40	450.30	38.4	9.15	351.36
1986	40.7	9.73	9.34	396.01	39.2	11.70	458.64	38.3	9.34	357.72
1987	41.0	9.91	9.48	406.31	39.2	12.03	471.58	38.1	9.59	365.38
1988	41.1	10.19	9.73	418.81	38.8	12.26	475.69	38.1	9.98	380.24
1989	41.0	10.48	10.02	429.68	38.9	12.60	490.14	38.0	10.39	394.82
1990	40.8	10.83	10.37	441.86	38.9	12.97	504.53	38.1	10.79	411.10
1991	40.7	11.18	10.71	455.03	38.7	13.24	512.39	38.1	11.15	424.82

See footnotes at end of table.

Table C-1. Average hours and earnings of production or nonsupervisory workers[a] on private nonfarm payrolls by major industry, 1964–91 annual averages (continued)

Year	Retail trade			Finance, insurance and real estate			Services		
	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
1964	37.0	$1.75	$64.75	37.3	$2.30	$85.79	36.1	$1.94	$70.03
1965	36.6	1.82	66.61	37.2	2.39	88.91	35.9	2.05	73.60
1966	35.9	1.91	68.57	37.3	2.47	92.13	35.5	2.17	77.04
1967	35.3	2.01	70.95	37.1	2.58	95.72	35.1	2.29	80.38
1968	34.7	2.16	74.95	37.0	2.75	101.75	34.7	2.42	83.97
1969	34.2	2.30	78.66	37.1	2.93	108.70	34.7	2.61	90.57
1970	33.8	2.44	82.47	36.7	3.07	112.67	34.4	2.81	96.66
1971	33.7	2.60	87.62	36.6	3.22	117.85	33.9	3.04	103.06
1972	33.4	2.75	91.85	36.6	3.36	122.98	33.9	3.27	110.85
1973	33.1	2.91	96.32	36.6	3.53	129.20	33.8	3.47	117.29
1974	32.7	3.14	102.68	36.5	3.77	137.61	33.6	3.75	126.00
1975	32.4	3.36	108.86	36.5	4.06	148.19	33.5	4.02	134.67
1976	32.1	3.57	114.60	36.4	4.27	155.43	33.3	4.31	143.52
1977	31.6	3.85	121.66	36.4	4.54	165.26	33.0	4.65	153.45
1978	31.0	4.20	130.20	36.4	4.89	178.00	32.8	4.99	163.67
1979	30.6	4.53	138.62	36.2	5.27	190.77	32.7	5.36	175.27
1980	30.2	4.88	147.38	36.2	5.79	209.60	32.6	5.85	190.71
1981	30.1	5.25	158.03	36.3	6.31	229.05	32.6	6.41	208.97
1982	29.9	5.48	163.85	36.2	6.78	245.44	32.6	6.92	225.59
1983	29.8	5.74	171.05	36.2	7.29	263.90	32.7	7.31	239.04
1984	29.8	5.85	174.33	36.5	7.63	278.50	32.6	7.59	247.43
1985	29.4	5.94	174.64	36.4	7.94	289.02	32.5	7.90	256.75
1986	29.2	6.03	176.08	36.4	8.36	304.30	32.5	8.18	265.85
1987	29.2	6.12	178.70	36.3	8.73	316.90	32.5	8.49	275.93
1988	29.1	6.31	183.62	35.9	9.06	325.25	32.6	8.88	289.49
1989	28.9	6.53	188.72	35.8	9.53	341.17	32.6	9.38	305.79
1990	28.8	6.75	194.40	35.8	9.97	356.93	32.5	9.83	319.48
1991	28.6	6.95	198.77	35.7	10.40	371.28	32.4	10.22	331.13

[a] Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

Note: Data presented in Table C-1 are from the establishment survey. These estimates are currently projected from March 1991 benchmark levels. When more recent benchmark data are introduced, data beginning April 1991 are subject to revision.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table D-1. Civilian labor force by sex, age, race, and Hispanic origin, 1975 and 1990, and moderate growth projection to 2005 (Numbers in thousands)

Group	Level			Change		Percent change		Percent distribution			Annual labor force growth rate (percent)	
	1975	1990	2005	1975-1990	1990-2005	1975-1990	1990-2005	1975	1990	2005	1975-1990	1990-2005
Total, 16 years and over	93,775	124,787	150,732	31,012	25,945	33.1	20.8	100.0	100.0	100.0	1.9	1.3
Men, 16 years and over ..	56,299	68,234	79,338	11,935	11,104	21.2	16.3	60.0	54.7	52.6	1.3	1.0
Women, 16 years and over ..	37,475	56,554	71,394	19,079	14,840	50.9	26.2	40.0	45.3	47.4	2.8	1.6
16 to 24	22,621	21,253	24,048	–1,368	2,795	-6.0	13.2	24.1	17.0	16.0	-.4	.8
25 to 54	56,851	88,140	104,562	31,289	16,422	55.0	18.6	60.6	70.6	69.4	3.0	1.1
55 and over ..	14,303	15,395	22,122	1,092	6,727	7.6	43.7	15.3	12.3	14.7	.5	2.4
White, 16 years and over ..	82,831	107,177	125,785	24,346	18,608	29.4	17.4	88.3	85.9	83.4	1.7	1.1
Black, 16 years and over ..	9,263	13,493	17,766	4,230	4,273	45.7	31.7	9.9	10.8	11.8	2.5	1.9
Asian and other, 16 years and over[a]	1,681	4,117	7,181	2,436	3,064	144.9	74.4	1.8	3.3	4.8	6.2	3.8
Hispanic, 16 years and over[b] ..	(c)	9,576	16,790	(c)	7,214	(c)	75.3	(c)	7.7	11.1	[d]5.9	3.8

[a] The "Asian and other" group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaskan natives. The historic data are derived by subtracting "Black" from the "Black and other" group; projections are made directly.

[b] Persons of Hispanic origin may be of any race.

[c] Data on Hispanics were not available before 1980.

[d] 1976-90.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table D-2. Civilian labor force participation rates by sex, age, race, and Hispanic origin, 1975 and 1990, and moderate growth projection to 2005 (Percent)

Group	Participation			Annual growth rate	
	1975	1990	2005	1975-1990	1990-2005
Total, 16 years and over	61.2	66.4	69.0	0.5	0.3
16 to 24	64.6	67.3	69.5	.3	.2
25 to 54	74.1	83.5	87.3	.8	.3
55 and over	34.6	30.2	34.6	−.9	.9
Men, 16 years and over	77.9	76.1	75.4	−.2	−.1
16 to 24	72.4	71.5	73.1	−.1	.1
25 to 54	94.4	93.5	92.4	−.1	−.1
55 and over	49.3	39.3	41.8	−1.5	.4
Women, 16 years and over	46.3	57.5	63.0	1.5	.6
16 to 24	57.2	63.1	66.0	.7	.3
25 to 54	55.1	74.1	82.3	2.0	.7
55 and over	23.1	23.0	28.7	0	1.5
White, 16 years and over	61.5	66.8	69.7	.6	.3
Black, 16 years and over	58.8	63.3	65.6	.5	.2
Asian and other, 16 years and over[a]	62.4	64.9	66.4	.3	.2
Hispanic, 16 years and over[b]	(c)	67.0	69.9	[d].7	.3

[a] The "Asian and other" group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaskan natives.

[b] Persons of Hispanic origin may be of any race.

[c] Data on Hispanics were not available before 1980.

[d] 1976-90.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table D-3. Civilian noninstitutional population by sex, age, race, and Hispanic origin, 1975 and 1990, and moderate growth projection to 2005 (Numbers in thousands)

Group	Level			Change		Annual growth rate (percent)		Percent distribution		
	1975	1990	2005	1975-1990	1990-2005	1975-1990	1990-2005	1975	1990	2005
Total, 16 years and over	153,153	188,049	218,428	34,896	30,379	1.4	1.0	100.0	100.0	100.0
16 to 24	35,013	31,593	34,608	-3,420	3,015	-.7	.6	22.9	16.8	15.8
25 to 54	76,771	105,498	119,806	28,727	14,308	2.1	.9	50.1	56.1	54.8
55 and over	41,369	50,956	64,014	9,587	13,058	1.4	1.5	27.0	27.1	29.3
Men, 16 years and over	72,291	89,650	105,187	17,359	15,537	1.4	1.1	47.2	47.7	48.2
16 to 24	17,084	15,594	17,199	-1,490	1,605	-.6	.7	11.2	8.3	7.9
25 to 54	37,071	51,641	59,287	14,570	7,646	2.2	.9	24.2	27.5	27.1
55 and over	18,138	22,415	28,701	4,277	6,286	1.4	1.7	11.8	11.9	13.1
Women, 16 years and over	80,860	98,399	113,241	17,539	14,842	1.3	.9	52.8	52.3	51.8
16 to 24	17,929	15,999	17,409	-1,930	1,410	-.8	.6	11.7	8.5	8.0
25 to 54	39,700	53,856	60,519	14,156	6,663	2.1	.8	25.9	28.6	27.7
55 and over	23,231	28,541	35,313	5,310	6,772	1.4	1.4	15.2	15.2	16.2
White, 16 years and over	134,790	160,415	180,513	25,625	20,098	1.2	.8	88.0	85.3	82.6
Black, 16 years and over	15,751	21,300	27,101	5,549	5,801	2.0	1.6	10.3	11.3	12.4
Asian and other, 16 years and over[a]	2,632	6,338	10,814	3,706	4,476	6.0	3.6	1.7	3.4	5.0
Hispanic, 16 years and over[b]	(c)	14,297	24,010	(c)	9,713	(c)	3.5	(c)	7.6	11.0

[a] The "Asian and other" group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaskan natives.

[b] Persons of Hispanic origin may be of any race.

[c] Data on Hispanics were not available before 1980.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table D-4. Civilian labor force, 1990 and projected to 2005, and projected entrants and leavers, 1990-2005

Group	Labor force, 1990	Entrants, 1990-2005	Leavers, 1990-2005	Labor force, 2005
Number (thousands)				
Total	124,787	55,798	29,851	150,732
Men	68,234	28,197	17,090	79,338
Women	56,554	27,601	12,761	71,394
White, Non–Hispanic	98,013	36,425	24,423	110,015
Men	53,784	17,965	14,204	57,545
Women	44,229	18,460	10,219	52,470
Black	13,340	7,250	3,144	17,447
Men	6,628	3,461	1,553	8,537
Women	6,712	3,789	1,591	8,910
Hispanic	9,576	8,768	1,556	16,790
Men	5,755	5,085	939	9,902
Women	3,821	3,683	617	6,888
Asian and other	3,855	3,354	728	6,482
Men	2,064	1,686	395	3,356
Women	1,791	1,668	333	3,126
Share (percent)				
Total	100.0	100.0	100.0	100.0
Men	54.7	50.5	57.3	52.6
Women	45.3	49.5	42.7	47.4
White, Non–Hispanic	78.5	65.3	81.8	73.0
Men	43.1	32.2	47.6	38.2
Women	35.4	33.1	34.2	34.8
Black	10.7	13.0	10.5	11.6
Men	5.3	6.2	5.2	5.7
Women	5.4	6.8	5.3	5.9
Hispanic	7.7	15.7	5.2	11.1
Men	4.6	9.1	3.1	6.6
Women	3.1	6.6	2.1	4.6
Asian and other	3.1	6.0	2.4	4.3
Men	1.7	3.0	1.3	2.2
Women	1.4	3.0	1.1	2.1

Unlike other tables in the D Series, the columns in this table are additive.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table D-5. Median ages of the labor force, by sex, race, and Hispanic origin, selected historical years and projected years 1995, 2000, and 2005 (Age in years)

Group	1962	1970	1975	1980	1985	1990	1995	2000	2005
Total	40.5	39.0	35.8	34.3	35.2	36.6	38.0	39.4	40.6
Men	40.5	39.4	36.5	35.1	35.6	36.7	38.0	39.4	40.5
Women	40.4	38.3	34.8	33.9	34.7	36.4	38.0	39.5	40.6
White	40.9	39.3	35.6	34.8	35.4	36.8	38.3	39.8	41.0
Black[a]	38.3	36.6	34.1	33.3	33.8	34.9	36.2	37.4	38.3
Asian and other[b]	(c)	(c)	(c)	33.8	34.9	36.5	37.2	38.0	38.6
Hispanic origin[d]	(c)	(c)	(c)	30.7	32.4	33.2	34.2	35.0	35.6

[a] For 1962 and 1970: Black and other.

[b] The "Asian and other" group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaskan natives. The historic data are derived by subtracting "Black" from the "Black and other" group; projections are made directly.

[c] Because data for blacks were not tabulated separately before 1972, data for the "Asian and other" group were not available before that year.

[d] Persons of Hispanic origin may be of any race.

[e] Data on Hispanics were not available before 1980.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table D-6. Three projections of the civilian labor force by sex, age, race, and Hispanic origin, 2005

Group	Participation rate (percent)			Level (thousands)		
	High	Moderate	Low	High	Moderate	Low
Total	71.5	69.0	66.1	156,169	150,732	141,774
16 to 24 years	72.6	69.5	65.8	25,138	24,048	22,153
25 to 54 years	89.4	87.3	85.1	107,105	104,562	99,553
55 years and over	37.4	34.6	31.5	23,926	22,122	20,068
Men	77.3	75.4	72.9	81,360	79,338	75,184
Women	66.1	63.0	59.8	74,809	71,394	66,590
White	72.3	69.7	66.7	130,453	125,785	118,370
Black	67.7	65.6	63.2	18,341	17,766	16,940
Asian and other[a]	68.2	66.4	64.3	7,375	7,181	6,464
Hispanic[b]	74.6	69.9	67.3	17,906	16,790	16,163

[a] The "Asian and other" group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaskan natives. The historic data are derived by subtracting "Black" from the "Black and other" group; projections are made directly.

[b] Persons of Hispanic origin may be of any race.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table E-1. Number of participants served under JTPA Titles II-A, II-B, and III by State: Program Years 1988 and 1989 (for Title II-A and Title III data) and Fiscal Years 1989 and 1990 (for Title II-B data)

State	Title II-A		Title II-B		Title III	
	PY 1988	PY 1989	FY 1989	FY 1990	PY 1988	PY 1989
U.S. Total	1,246,404	1,185,301	607,576	584,727	207,575	235,935
Alabama	24,495	20,461	11,408	11,642	3,697	5,590
Alaska	3,309	3,629	1,246	1,285	953	815
Arizona	14,292	12,084	6,341	6,483	5,095	2,956
Arkansas	23,214	22,751	8,413	7,607	2,895	4,025
California	105,247	110,364	51,426	52,365	11,331	14,057
Colorado	21,603	21,593	8,468	7,010	4,788	5,687
Connecticut	5,820	5,286	5,044	3,870	942	942
Delaware	2,219	1,976	1,284	1,141	423	460
District of Columbia	2,559	2,237	4,880	5,228	946	446
Florida	68,391	66,778	19,678	22,878	2,687	4,569
Georgia	19,967	19,300	12,669	12,481	5,039	3,425
Hawaii	3,309	3,894	1,391	1,292	979	528
Idaho	7,562	7,167	2,481	2,103	1,278	1,770
Illinois	56,429	52,056	29,501	27,778	13,248	10,652
Indiana	30,810	26,557	11,321	8,623	4,977	5,042
Iowa	15,651	13,896	4,704	3,795	4,622	4,411
Kansas	7,846	6,961	3,173	2,799	2,233	989
Kentucky	36,868	40,231	14,032	12,944	12,672	12,232
Louisiana	41,422	46,045	22,380	22,902	5,859	8,632
Maine	4,618	4,805	1,846	1,513	666	708
Maryland	18,271	24,978	6,385	6,803	2,307	3,599
Massachusetts	13,136	11,401	9,222	7,990	4,296	3,844
Michigan	51,413	53,710	26,125	27,595	7,812	10,592
Minnesota	23,395	23,184	6,715	6,145	4,474	6,173
Mississippi	23,001	25,180	9,935	10,522	2,569	5,655
Missouri	20,856	20,377	10,452	9,545	5,523	5,534
Montana	4,576	4,462	2,013	1,751	1,228	1,387
Nebraska	6,248	4,460	1,744	1,470	707	509
Nevada	5,060	4,817	1,750	1,297	485	491
New Hampshire	2,355	2,731	823	587	170	253
New Jersey	19,882	19,842	12,937	12,212	5,924	3,274
New Mexico	10,111	10,605	6,497	5,148	2,016	2,661
New York	69,300	53,060	39,484	42,761	7,912	7,523
North Carolina	28,688	23,631	9,346	7,726	4,436	4,874
North Dakota	2,641	2,614	1,670	1,450	891	659
Ohio	70,101	64,868	27,197	23,803	13,217	12,622
Oklahoma	17,969	16,745	7,456	6,797	4,409	5,214
Oregon	14,437	13,750	5,504	4,559	2,404	3,028
Pennsylvania	57,016	53,951	24,942	21,992	8,752	8,829

Table E-1. Number of participants served under JTPA Titles II-A, II-B, and III by State: Program Years 1988 and 1989 (for Title II-A and Title III data) and Fiscal Years 1989 and 1990 (for Title II-B data) (continued)

State	Title II-A		Title II-B		Title III	
	PY 1988	PY 1989	FY 1989	FY 1990	PY 1988	PY 1989
Rhode Island	2,957	2,326	1,310	1,133	468	431
South Carolina	15,736	13,320	8,595	6,558	4,641	7,170
South Dakota	5,542	5,514	2,169	1,770	472	406
Tennessee	38,663	36,949	11,609	11,874	5,233	5,372
Texas	87,057	91,552	43,275	35,803	11,368	18,933
Utah	6,046	6,181	2,978	2,492	854	1,036
Vermont	3,160	3,199	1,014	1,403	110	501
Virginia	17,307	16,087	7,506	7,450	3,873	1,740
Washington	19,907	18,199	8,793	7,443	4,071	4,531
West Virginia	11,901	8,979	9,035	8,480	2,185	2,336
Wisconsin	28,735	26,511	7,876	8,046	6,021	10,191
Wyoming	2,518	2,486	860	742	377	348
American Samoa	172	0	127	152	—	—
Micronesia	1,392	0	0	0	—	—
Guam	0	1,230	0	0	—	—
Marshall Islands	1,087	1,039	0	0	—	—
Northern Marianas	0	0	0	0	—	—
Palau	0	0	182	146	—	—
Puerto Rico	52,788	31,561	70,673	75,641	3,040	8,283
Virgin Islands	757	470	370	350	204	528

Source: U.S. Department of Labor, Employment and Training Administration. For Title II-A: JTPA Annual Status Report (April 6, 1992); for Title II-B: JTPA Summer Performance Report (January 15, 1992); for Title III: JTPA Annual Status Report and Worker Adjustment Annual Program Report (February 19, 1992). Title II-B data are for Service Delivery Areas' programs during the summers of 1989 and 1990.

Table E-2. Expenditures under JTPA Titles II-A and II-B by State: Program Years 1988 and 1989 (for Title II-A data) and Fiscal Years 1989 and 1990 (for Title II-B data)

State	Title II-A		Title II-B	
	PY 1988	PY 1989	FY 1989	FY 1990
U.S. Total	$1,840,351,825	$1,838,088,827	$713,586,064	$693,981,887
Alabama	43,841,344	40,394,298	15,147,498	16,963,180
Alaska	5,836,903	6,817,404	2,156,584	2,568,481
Arizona	23,458,372	24,658,203	9,622,447	9,479,200
Arkansas	23,444,372	25,800,892	10,353,266	10,539,059
California	202,013,806	206,596,774	70,989,712	73,248,853
Colorado	26,819,802	28,229,747	10,958,114	10,831,717
Connecticut	10,698,730	10,055,175	6,480,497	5,231,925
Delaware	4,526,457	4,379,121	1,569,783	1,849,266
District of Columbia	6,531,941	5,692,350	4,696,633	4,131,520
Florida	59,876,988	66,710,500	23,984,850	30,732,347
Georgia	38,247,261	39,311,770	15,867,541	17,022,429
Hawaii	5,297,856	5,065,205	1,843,143	1,877,635
Idaho	9,339,644	9,401,945	3,674,189	3,410,049
Illinois	96,283,125	95,325,309	37,857,846	34,422,081
Indiana	38,778,764	32,755,159	14,103,588	12,165,558
Iowa	19,966,030	17,820,768	6,528,235	5,944,432
Kansas	10,128,109	9,409,541	3,702,103	3,407,953
Kentucky	46,669,197	44,334,761	16,257,063	15,233,860
Louisiana	64,815,088	74,035,282	25,770,600	26,162,320
Maine	6,045,883	6,251,885	2,281,733	2,285,805
Maryland	16,870,082	18,396,525	8,084,578	8,062,489
Massachusetts	23,990,780	20,717,571	14,302,094	11,432,146
Michigan	84,135,271	91,172,438	38,086,206	36,153,247
Minnesota	23,535,468	22,095,444	8,127,071	7,487,826
Mississippi	31,729,786	35,121,882	12,192,503	13,197,075
Missouri	32,376,853	33,020,461	12,910,320	14,014,570
Montana	7,682,744	8,130,341	3,067,172	2,981,464
Nebraska	7,235,655	6,678,274	2,498,152	2,289,737
Nevada	6,853,507	6,488,308	2,775,315	2,223,972
New Hampshire	4,888,017	4,883,288	2,197,179	1,690,704
New Jersey	35,014,046	31,983,601	16,134,361	14,361,444
New Mexico	16,513,748	16,493,094	6,864,872	6,158,551
New York	111,939,662	97,455,441	37,677,708	42,163,693
North Carolina	36,648,105	30,123,658	11,104,885	10,142,906
North Dakota	4,349,512	4,728,717	1,741,240	1,742,504
Ohio	87,867,961	79,677,246	30,583,827	28,494,220
Oklahoma	27,125,957	25,966,757	10,422,746	9,429,057
Oregon	22,804,623	20,908,622	7,452,387	7,670,487
Pennsylvania	85,799,306	80,321,195	27,876,596	25,641,248

Table E-2. Expenditures under JTPA Titles II-A and II-B by State: Program Years 1988 and 1989 (for Title II-A data) and Fiscal Years 1989 and 1990 (for Title II-B data) (continued)

State	Title II-A		Title II-B	
	PY 1988	PY 1989	FY 1989	FY 1990
Rhode Island	5,742,348	4,107,436	2,248,452	1,932,336
South Carolina	22,602,757	20,750,291	9,276,880	7,026,299
South Dakota	4,827,227	4,441,076	1,775,249	1,735,018
Tennessee	46,580,394	42,543,117	14,351,396	13,991,143
Texas	153,999,517	174,220,975	66,490,948	59,382,088
Utah	8,641,392	9,737,645	3,610,997	3,678,877
Vermont	4,723,514	4,572,463	1,195,807	1,935,225
Virginia	26,769,666	24,722,958	10,175,958	10,226,477
Washington	36,721,625	37,373,164	15,522,314	13,826,784
West Virginia	22,072,600	20,242,391	8,946,238	8,718,119
Wisconsin	32,980,396	30,948,048	10,775,057	10,696,203
Wyoming	3,942,473	4,605,721	1,824,160	1,545,892
American Samoa	149,805	136,797	53,913	58,340
Micronesia	710,442	355,372	0	0
Guam	1,827,897	1,711,137	0	0
Marshall Islands	521,584	399,591	0	0
Northern Marianas	182,283	141,831	0	0
Palau	139,825	136,000	7,688	7,596
Puerto Rico	60,767,161	72,414,590	29,447,971	26,442,416
Virgin Islands	1,308,861	1,308,753	334,922	355,020

Source: U.S. Department of Labor, Employment and Training Administration (JTPA Semiannual Status Report [April 6, 1992] and JTPA Summer Performance Report [January 15, 1992]). Title II-B data are for Service Delivery Areas during the summers of 1989 and 1990.

Table E-3. Formula and discretionary expenditures under JTPA Title III by State: Program Years 1988 and 1989

State	PY 1988		PY 1989	
	Formula	Discretionary	Formula	Discretionary
U.S. Total	$226,740,089	$29,505,129	$258,316,235	$52,733,363
Alabama	4,669,779	940,103	6,082,075	946,069
Alaska	938,976	231,073	1,250,696	243,221
Arizona	2,291,142	447,738	3,322,740	359,270
Arkansas	2,633,559	98,920	3,731,096	207,221
California	28,154,967	498,888	24,331,816	6,002,580
Colorado	4,081,365	38,906	5,104,542	474,017
Connecticut	1,060,761	498,761	1,088,905	534,334
Delaware	238,643	0	241,714	53,266
District of Columbia	613,003	0	559,242	183,324
Florida	6,357,910	243,952	6,178,833	465,564
Georgia	3,507,541	1,863,697	5,007,291	1,274,023
Hawaii	546,462	210,752	306,673	292,164
Idaho	1,106,656	558,214	1,157,398	439,026
Illinois	12,598,860	1,336,167	16,950,397	1,042,476
Indiana	4,921,318	1,549,867	4,189,552	1,186,611
Iowa	2,172,700	2,519,853	2,234,170	2,496,635
Kansas	1,369,128	704,545	1,171,746	772,239
Kentucky	5,464,992	168,331	7,139,235	10,452
Louisiana	9,911,294	11,219	12,222,248	763,476
Maine	465,318	0	493,098	85,375
Maryland	1,584,443	2,946	2,194,733	677,011
Massachusetts	1,773,069	1,035,822	1,714,792	2,237,339
Michigan	10,258,592	1,330,774	17,528,846	2,182,052
Minnesota	2,876,071	818,353	2,650,720	773,349
Mississippi	3,465,020	6,963	5,735,939	1,235,670
Missouri	3,355,917	453,647	4,431,932	544,871
Montana	930,949	444,100	1,102,366	340,939
Nebraska	729,755	130,053	690,891	113,344
Nevada	890,967	34,000	915,650	82,356
New Hampshire	222,958	72,789	240,853	165,353
New Jersey	3,021,842	905,928	3,268,180	882,355
New Mexico	2,106,826	0	2,441,142	0
New York	13,860,158	1,733,092	11,707,802	1,062,081
North Carolina	2,663,152	364,601	2,710,129	692,840
North Dakota	401,924	812,681	372,693	679,883
Ohio	17,276,799	864,599	15,583,601	721,998
Oklahoma	4,310,967	367,495	3,947,271	191,918
Oregon	2,659,505	356,355	2,760,597	1,129,261
Pennsylvania	11,519,816	1,647,439	9,612,197	2,398,033

Table E-3. Formula and discretionary expenditures under JTPA Title III by State: Program Years 1988 and 1989 (continued)

State	PY 1988		PY 1989	
	Formula	Discretionary	Formula	Discretionary
Rhode Island	300,961	262,616	248,067	146,786
South Carolina	2,888,054	0	2,280,413	3,094,787
South Dakota	325,396	166,311	159,677	156,325
Tennessee	6,912,028	302,001	4,085,460	770,770
Texas	16,670,923	2,193,430	28,466,392	3,370,303
Utah	1,006,262	259,245	1,258,634	734,303
Vermont	227,945	10,650	209,807	110,112
Virginia	2,101,317	191,023	2,462,959	928,736
Washington	4,423,135	615,949	7,224,195	1,810,797
West Virginia	2,993,379	217,849	4,693,180	229,201
Wisconsin	4,597,516	1,836,866	4,770,038	3,560,522
Wyoming	675,567	146,566	696,741	56,811
American Samoa	—	—	—	—
Micronesia	—	—	—	—
Guam	—	—	—	—
Marshall Islands	—	—	—	—
Northern Marianas	—	—	—	—
Palau	—	—	—	—
Puerto Rico	6,604,502	0	9,386,871	3,821,914
Virgin Islands	283,879	0	33,950	1,833,794

Source: U.S. Department of Labor, Employment and Training Administration (JTPA Semiannual Status Report and Worker Adjustment Program Quarterly Financial Report (February 19, 1992)).

Table E-4. Characteristics of individuals served by the Employment Service by State: Program Year 1988

State	Total applications	Women	Economically disadvantaged	Veterans
Total	18,085,692	7,966,018	3,230,552	2,335,888
Alabama	446,624	219,695	130,183	53,244
Alaska	86,509	35,760	15,508	12,955
Arizona	302,335	126,261	48,647	47,459
Arkansas	298,633	140,632	23,253	35,042
California	1,139,129	467,216	34,335	161,701
Colorado	273,456	114,907	50,350	41,482
Connecticut	223,728	99,778	48,025	27,879
Delaware	22,135	9,623	363	4,129
Dist. of Columbia	92,248	44,388	31,994	8,375
Florida	788,873	362,669	74,093	90,342
Georgia	455,159	202,266	14,855	65,102
Guam	7,559	3,471	2,953	370
Hawaii	68,606	33,617	11,228	9,553
Idaho	134,872	59,958	18,330	16,324
Illinois	749,840	304,911	95,282	94,197
Indiana	475,168	203,763	88,610	70,830
Iowa	286,070	127,803	27,637	31,563
Kansas	219,809	92,732	26,455	27,186
Kentucky	373,498	167,340	111,969	47,200
Louisiana	415,882	185,978	56,620	43,111
Maine	116,735	49,712	1,111	15,008
Maryland	175,130	79,855	25,439	26,022
Massachusetts	182,919	77,193	65,830	21,011
Michigan	673,659	265,088	200,842	113,113
Minnesota	322,113	135,365	55,296	43,473
Mississippi	343,975	176,255	73,438	29,794
Missouri	557,912	248,671	187,956	74,642
Montana	114,377	49,005	6,846	16,693
Nebraska	104,859	44,989	15,798	15,078
Nevada	105,103	38,242	3,772	25,315
New Hampshire	51,489	20,855	7,601	9,328
New Jersey	330,021	180,044	137,776	31,161
New Mexico	174,754	71,627	58,358	26,309
New York	760,858	343,419	264,818	89,219
North Carolina	667,610	333,474	85,932	81,376
North Dakota	97,252	44,081	7,516	9,440
Ohio	741,288	323,953	232,413	111,614
Oklahoma	379,309	159,273	57,018	57,225
Oregon	286,361	114,480	0	41,675
Pennsylvania	631,373	257,671	127,631	102,307
Puerto Rico	222,544	99,805	199,602	9,338
Rhode Island	42,671	19,233	3,364	3,281
South Carolina	330,594	170,493	37,876	35,548
South Dakota	93,861	45,115	20,806	9,252

Table E-4. Characteristics of individuals served by the Employment Service by State: Program Year 1988 (continued)

State	Total applications	Women	Economically disadvantaged	Veterans
Tennessee	417,399	199,221	75,483	52,705
Texas	1,680,888	708,404	98,466	182,514
Utah	202,920	89,201	17,271	16,661
Vermont	56,453	26,914	9,912	5,648
Virgin Islands	10,684	5,379	4,964	437
Virginia	400,691	180,238	8,099	56,346
Washington	362,146	155,851	96,481	58,718
West Virginia	162,034	65,804	57,581	23,662
Wisconsin	354,801	155,451	67,129	43,742
Wyoming	70,776	28,889	7,437	10,189

Source: U.S. Department of Labor, Employment and Training Administration.

Table E-5. Characteristics of individuals served by the Employment Service by State: Program Year 1989

State	Total applications	Women	Economically disadvantaged	Veterans
Total	18,414,985	8,022,004	3,059,805	2,374,565
Alabama	451,991	220,283	116,923	52,466
Alaska	89,988	36,938	11,549	13,134
Arizona	330,435	140,530	57,852	49,006
Arkansas	307,472	144,675	21,409	35,234
California	1,093,744	444,921	29,491	152,183
Colorado	292,799	122,564	52,101	43,457
Connecticut	272,691	114,057	48,291	33,552
Delaware	27,753	11,767	265	5,206
Dist. of Columbia	91,475	44,223	27,979	7,793
Florida	913,607	416,301	50,199	94,533
Georgia	499,274	216,925	12,199	71,228
Guam	5,306	2,719	1,848	95
Hawaii	70,153	34,535	16,876	9,497
Idaho	136,648	61,711	15,804	16,398
Illinois	787,959	317,571	165,275	97,490
Indiana	462,242	196,541	78,919	71,401
Iowa	306,068	138,539	24,383	32,091
Kansas	213,273	88,585	20,618	26,053
Kentucky	379,737	170,545	114,592	46,813
Louisiana	374,306	173,050	44,289	37,981
Maine	133,612	54,345	930	17,052
Maryland	189,079	84,692	20,991	28,092
Massachusetts	235,750	96,023	75,721	25,251
Michigan	682,853	261,413	201,567	144,541
Minnesota	316,731	130,654	32,952	43,651
Mississippi	340,127	173,499	67,223	29,882
Missouri	562,098	249,977	199,567	75,538
Montana	110,936	47,947	5,196	15,641
Nebraska	106,628	46,152	12,610	14,746
Nevada	99,125	36,035	1,343	21,884
New Hampshire	60,944	23,555	8,561	11,429
New Jersey	346,141	163,443	81,261	37,226
New Mexico	200,722	84,149	61,216	28,327
New York	790,939	345,382	302,486	91,082
North Carolina	689,364	342,926	78,109	79,012
North Dakota	99,570	46,280	6,845	8,592
Ohio	663,424	277,803	184,850	102,322
Oklahoma	352,679	148,642	50,150	51,566
Oregon	285,872	115,379	—	39,435
Pennsylvania	641,026	265,110	112,922	99,508
Puerto Rico	219,024	97,657	197,545	8,100
Rhode Island	54,021	23,661	3,577	4,064
South Carolina	338,695	172,046	29,646	37,153
South Dakota	96,467	46,885	20,905	8,795

Table E-5. Characteristics of individuals served by the Employment Service by State: Program Year 1989 (continued)

State	Total applications	Women	Economically disadvantaged	Veterans
Tennessee	418,362	193,754	59,259	55,520
Texas	1,601,919	666,267	79,350	175,930
Utah	211,159	94,495	14,567	15,827
Vermont	68,560	31,091	11,739	6,716
Virgin Islands	14,774	6,203	7,258	544
Virginia	424,455	192,654	10,705	65,114
Washington	363,612	155,355	93,465	58,639
West Virginia	163,588	68,110	50,577	23,178
Wisconsin	353,127	153,771	58,471	44,201
Wyoming	72,681	29,669	7,379	10,396

Source: U.S. Department of Labor, Employment and Training Administration.

Table E-6. Selected services provided to applicants by the Employment Service by State: Program Year 1988

State	Referred to jobs	Placed in jobs	Referred to training	Placed in training	Counseled
Total	7,446,322	3,224,961	291,246	119,062	573,261
Alabama	199,281	93,251	5,984	2,257	4,145
Alaska	47,499	25,761	591	135	1,491
Arizona	125,358	37,224	989	2,656	2,791
Arkansas	138,751	64,499	1,423	1,424	1,307
California	553,219	274,103	9,784	1,961	9,276
Colorado	118,601	49,126	1,846	1,844	5,286
Connecticut	80,076	21,940	6,675	1,510	10,070
Delaware	6,800	3,695	384	221	1,084
Dist. of Columbia	36,713	27,971	5,510	4,327	13,786
Florida	413,697	143,352	48,856	3,769	17,186
Georgia	214,358	89,196	3,814	1,806	34,266
Guam	5,108	2,022	926	184	180
Hawaii	37,259	11,164	1,822	474	1,839
Idaho	80,286	35,973	863	892	4,363
Illinois	213,558	117,570	3,891	1,268	5,938
Indiana	185,926	61,382	11,122	1,019	3,672
Iowa	158,416	72,837	15,001	2,755	10,741
Kansas	92,541	38,634	14,677	2,030	8,179
Kentucky	152,193	80,249	14,541	9,457	25,206
Louisiana	159,779	78,325	2,917	1,875	4,786
Maine	48,138	16,225	873	564	325
Maryland	71,733	35,603	2,623	2,089	50,173
Massachusetts	93,256	39,468	3,902	1,138	10,420
Michigan	130,251	73,199	2,788	2,095	29,946
Minnesota	147,178	65,092	1,881	918	5,055
Mississippi	161,834	79,250	20,714	14,977	11,708
Missouri	228,195	83,884	2,971	3,477	11,953
Montana	53,023	26,232	1,197	767	6,971
Nebraska	56,560	28,854	2,043	764	14,660
Nevada	56,846	17,448	371	498	2,926
New Hampshire	25,273	7,564	1,493	506	3,598
New Jersey	69,130	31,219	11,343	1,426	12,293
New Mexico	45,272	25,408	673	469	2,549
New York	217,925	122,041	6,994	4,976	42,359
North Carolina	355,239	159,842	1,967	2,223	14,522
North Dakota	61,377	27,514	2,815	1,698	6,163
Ohio	189,779	65,112	7,397	5,329	11,052
Oklahoma	101,408	45,809	19,891	6,033	18,513
Oregon	158,423	63,968	462	209	15,977
Pennsylvania	257,680	113,672	4,145	4,578	7,998
Puerto Rico	38,724	24,021	1,754	1,060	8,087
Rhode Island	15,941	7,880	104	2	2,043
South Carolina	171,372	71,040	3,166	2,086	5,295
South Dakota	60,535	29,949	251	749	4,741

Table E-6. Selected services provided to applicants by the Employment Service by State: Program Year 1988 (continued)

State	Referred to jobs	Placed in jobs	Referred to training	Placed in training	Counseled
Tennessee	190,602	72,701	6,604	3,185	3,239
Texas	702,902	284,230	13,605	5,636	52,070
Utah	118,417	51,419	696	396	10,550
Vermont	25,098	7,302	244	58	1,822
Virgin Islands	4,928	1,747	792	198	799
Virginia	157,120	60,865	987	1,322	1,453
Washington	160,146	65,803	4,662	3,193	12,836
West Virginia	69,318	25,016	5,280	3,177	5,676
Wisconsin	143,469	48,402	668	637	6,742
Wyoming	40,811	18,908	4,274	765	13,155

Source: U.S. Department of Labor, Employment and Training Administration.

Table E-7. Selected services provided to applicants by the Employment Service by State: Program Year 1989

State	Referred to jobs	Placed in jobs	Referred to training	Placed in training	Counseled
Total	7,679,948	3,123,579	279,651	110,295	600,058
Alabama	211,127	99,423	3,483	2,015	2,985
Alaska	46,775	23,410	392	235	1,677
Arizona	137,501	41,543	2,405	638	3,330
Arkansas	149,080	68,407	459	267	1,168
California	520,004	253,629	6,217	2,143	7,518
Colorado	136,174	53,287	2,101	2,318	5,550
Connecticut	93,138	17,410	5,480	1,500	9,952
Delaware	8,309	3,467	289	173	1,213
Dist. of Columbia	35,387	23,774	5,014	3,908	14,312
Florida	464,738	144,357	22,267	3,413	16,682
Georgia	224,640	91,828	4,870	1,345	39,358
Guam	3,150	1,766	368	115	—
Hawaii	32,159	9,088	2,969	697	2,051
Idaho	85,045	38,337	861	1,011	4,470
Illinois	233,390	124,594	8,899	2,425	6,853
Indiana	184,061	52,428	10,676	1,405	2,541
Iowa	171,569	73,976	17,703	3,079	13,105
Kansas	91,704	36,283	12,263	1,440	9,339
Kentucky	154,872	85,236	16,734	12,176	35,700
Louisiana	149,725	65,081	3,797	1,520	3,666
Maine	53,606	15,888	1,100	438	545
Maryland	72,835	32,894	2,937	3,206	79,619
Massachusetts	109,513	34,693	3,982	922	11,667
Michigan	132,633	69,638	4,025	1,361	27,105
Minnesota	160,455	63,596	1,429	622	4,097
Mississippi	165,410	79,592	18,503	12,394	14,927
Missouri	244,358	78,792	5,971	3,645	11,080
Montana	58,919	24,735	892	369	5,971
Nebraska	62,271	30,421	1,179	1,059	13,940
Nevada	52,105	15,803	344	562	3,251
New Hampshire	27,162	6,908	809	202	2,184
New Jersey	72,213	27,330	14,245	1,287	15,358
New Mexico	46,502	24,508	639	771	2,255
New York	213,129	100,995	6,495	5,112	42,771
North Carolina	384,916	153,914	3,058	2,088	16,076
North Dakota	65,845	27,403	2,600	1,470	5,658
Ohio	165,499	50,489	2,976	2,119	7,549
Oklahoma	109,090	47,181	31,520	5,869	15,140
Oregon	147,905	54,176	907	260	16,558
Pennsylvania	260,655	104,021	3,646	2,877	6,388
Puerto Rico	37,542	22,953	1,093	868	8,427
Rhode Island	16,898	6,470	567	63	2,701
South Carolina	188,483	75,295	2,101	1,171	3,998
South Dakota	66,682	32,021	265	626	4,400

Table E-7. Selected services provided to applicants by the Employment Service by State: Program Year 1989 (continued)

State	Referred to jobs	Placed in jobs	Referred to training	Placed in training	Counseled
Tennessee	184,464	62,791	7,478	3,429	2,906
Texas	701,144	295,021	14,018	4,706	45,194
Utah	126,019	56,960	642	499	11,654
Vermont	27,602	7,771	165	35	1,790
Virgin Islands	4,348	1,848	296	109	810
Virginia	166,875	59,591	788	1,085	1,264
Washington	167,372	67,270	6,385	3,639	17,921
West Virginia	64,182	23,719	6,140	4,015	5,984
Wisconsin	148,679	43,283	996	551	5,961
Wyoming	42,089	18,285	4,213	1,043	3,439

Source: U.S. Department of Labor, Employment and Training Administration.

Table E-8. Regular State unemployment insurance benefit data: U.S. totals, FY 1988–1989, and by State for 12 months ending September 30, 1990

FY and State	Initial Claims	Average Weekly Unemployed	% of Covered Employment	Total Beneficiaries	Average Weekly Beneficiaries	Average Weekly Wage	Average Weekly Benefit	% Avg. Weekly Wage	Potential Weeks of Benefits	Actual Weeks of Benefits	Exhaustees' Weeks of Benefits	Numbers of Exhaustees	Exhaustees as % of Recipients
1988	16,320,306	2,111,770	2.1	6,929,646	1,840,253	409.63	144.26	35.2	23.9	13.8	22.7	2,040,548	28.9
1989	16,410,001	2,096,697	2.0	7,089,977	1,820,297	424.37	149.37	35.2	24.4	13.4	22.9	1,913,937	28.0
1990	18,889,811	2,387,234	2.2	8,091,439	2,109,745	442.19	159.56	36.1	23.8	13.6	23.1	2,192,132	28.4
Alabama	389,701	34,019	2.2	157,966	29,678	379.79	114.47	30.1	24.1	9.8	22.6	27,550	17.4
Alaska	72,824	10,561	5.0	37,756	10,664	567.53	161.88	28.5	20.5	14.7	19.8	16,458	46.1
Arizona	183,487	25,614	1.8	80,423	20,840	404.18	133.67	33.1	22.9	13.5	21.8	21,057	28.1
Arkansas	226,268	25,465	2.9	88,225	20,561	340.18	133.38	39.2	24.1	12.1	23.2	20,187	23.9
California	2,842,212	348,836	2.7	1,115,208	310,826	493.79	128.02	25.9	23.5	14.5	23.7	314,152	30.1
Colorado	135,056	21,621	1.5	70,503	16,663	428.46	166.67	38.9	22.3	12.3	16.6	25,013	35.2
Connecticut	269,062	40,390	2.5	142,522	39,704	547.54	199.07	36.4	26.0	14.5	26.0	36,124	27.8
Delaware	54,517	4,477	1.3	19,971	4,562	461.04	172.27	37.4	26.0	11.9	26.0	2,485	11.0
District of Columbia	37,217	7,800	1.7	22,373	7,633	598.66	209.36	35.0	24.9	17.7	24.7	10,260	51.9
Florida	463,762	68,963	1.3	227,174	55,720	394.72	145.57	36.9	20.7	12.8	19.3	78,658	39.4
Georgia	459,802	42,778	1.5	234,102	40,510	414.98	141.18	34.0	21.9	9.0	21.0	43,488	19.6
Hawaii	53,082	5,351	1.1	21,199	4,643	428.15	190.70	44.5	26.0	11.4	26.0	3,247	16.6
Idaho	99,149	10,777	2.9	36,834	8,144	354.78	143.96	40.6	19.8	11.5	16.5	9,477	26.3
Illinois	724,329	114,336	2.3	328,541	101,968	477.29	168.07	35.2	26.0	16.1	26.0	106,385	34.0
Indiana	339,049	33,278	1.4	124,806	26,032	409.13	106.34	26.0	22.7	10.8	20.4	26,419	20.6
Iowa	142,584	18,967	1.6	73,571	17,361	361.84	159.24	44.0	22.4	12.3	21.0	16,084	21.7
Kansas	160,211	18,939	1.8	65,617	17,322	380.63	170.30	44.7	22.8	13.7	21.6	19,560	29.7
Kentucky	304,466	29,040	2.1	117,632	27,375	373.22	133.90	35.9	26.0	12.1	26.0	21,213	18.2
Louisiana	221,363	30,642	2.0	85,425	24,681	387.05	102.44	26.5	26.0	15.0	26.0	25,024	26.9
Maine	143,613	15,560	3.0	52,858	13,077	377.01	157.25	41.7	21.6	12.9	20.8	13,818	28.5
Maryland	235,936	33,445	1.7	106,334	29,983	458.75	168.49	36.7	26.0	14.7	26.0	23,456	24.4
Massachusetts	553,160	108,886	3.8	292,295	98,842	504.49	216.95	43.0	27.5	17.6	26.8	105,664	37.1
Michigan	1,081,034	118,317	3.1	451,102	109,723	481.81	200.46	41.6	21.9	12.6	21.3	123,681	25.5
Minnesota	235,845	39,922	2.0	127,610	36,858	437.44	188.86	43.2	23.2	15.0	21.6	38,373	30.5
Mississippi	217,240	22,732	2.6	76,371	17,837	330.44	110.77	33.5	23.8	12.1	22.5	18,474	24.2

Table E-8. Regular State unemployment insurance benefit data: U.S. totals, FY 1988–1989, and by State for 12 months ending September 30, 1990 (continued)

FY and State	Initial Claims	Average Weekly Unemployed	% of Covered Employment	Total Beneficiaries	Average Weekly Beneficiaries	Average Weekly Wage	Average Weekly Benefit	% Avg. Weekly Wage	Potential Weeks of Benefits	Actual Weeks of Benefits	Exhaustees' Weeks of Benefits	Numbers of Exhaustees	Exhaustees as % of Recipients
Missouri	457,654	49,227	2.2	167,135	41,698	408.91	132.80	32.5	22.3	13.0	20.7	45,451	27.9
Montana	47,805	7,274	2.7	22,862	5,698	331.83	135.72	40.9	18.3	13.0	18.0	7,159	31.7
Nebraska	58,702	7,190	1.0	26,842	5,823	347.35	120.22	34.6	22.9	11.3	16.9	6,896	25.8
Nevada	87,326	10,808	1.8	41,931	9,879	421.93	160.54	38.0	23.0	12.3	22.7	9,604	25.5
New Hampshire	72,531	9,895	2.0	46,826	8,105	427.30	128.09	30.0	26.0	9.0	26.0	1,771	4.8
New Jersey	578,900	97,399	2.8	304,376	92,542	535.77	203.55	38.0	24.1	15.8	23.1	111,193	39.3
New Mexico	58,874	10,382	2.0	26,930	8,210	356.57	127.35	35.7	25.8	15.9	25.2	9,112	32.8
New York	1,192,865	213,169	2.7	613,550	204,477	546.13	179.86	32.9	26.0	17.3	26.0	201,484	35.1
North Carolina	848,043	48,661	1.6	252,771	38,322	381.46	150.69	39.5	23.3	7.9	21.2	29,349	13.4
North Dakota	30,372	3,997	1.7	14,175	3,367	329.54	134.93	40.9	19.3	12.4	16.2	5,590	39.1
Ohio	766,471	94,344	2.0	318,741	80,923	431.02	145.23	33.7	25.6	13.2	25.3	70,448	22.0
Oklahoma	150,209	16,819	1.5	54,919	13,360	377.97	148.60	39.3	21.7	12.7	21.2	16,658	30.0
Oregon	292,961	34,339	2.9	115,262	29,168	399.78	159.53	39.9	25.6	13.2	24.9	24,525	22.5
Pennsylvania	1,136,931	141,523	2.9	443,531	126,675	441.01	187.28	42.5	25.9	14.9	25.8	101,233	24.1
Puerto Rico	232,766	41,811	4.9	117,960	31,286	242.77	77.88	32.1	20.0	13.8	20.0	54,794	50.3
Rhode Island	129,928	18,525	4.2	57,406	15,923	423.15	191.52	45.3	22.7	14.4	21.3	18,129	35.5
South Carolina	358,627	25,564	1.8	109,978	19,626	369.57	127.59	34.5	7.8	9.3	8.4	18,085	18.1
South Dakota	18,738	2,130	.8	7,182	1,580	303.69	120.20	39.6	25.0	11.4	24.8	951	12.3
Tennessee	506,640	48,155	2.3	230,857	41,199	384.83	111.83	29.1	22.9	9.3	17.7	47,502	26.8
Texas	731,757	110,336	1.6	338,693	95,751	426.60	161.18	37.8	20.8	14.7	20.0	138,097	40.4
Utah	57,617	7,868	1.2	31,393	6,967	372.91	162.77	43.6	20.6	11.5	19.0	8,258	26.7
Vermont	44,908	7,204	2.9	24,312	6,291	386.79	148.39	38.4	26.0	13.5	25.8	3,570	16.6
Virgin Islands	5,142	852	2.1	1,228	270	392.12	124.72	31.8	24.7	11.4	24.2	270	21.2
Virginia	386,074	24,374	.9	151,397	22,825	421.20	144.92	34.4	21.8	7.8	19.7	20,205	14.3
Washington	455,816	58,052	2.8	172,948	49,273	424.73	165.78	39.0	26.0	14.8	24.1	42,747	25.5
West Virginia	86,861	15,721	2.7	49,397	13,099	387.77	143.93	37.1	26.0	13.8	25.6	11,080	21.4
Wisconsin	421,959	47,873	2.2	182,903	43,665	398.38	168.67	42.3	24.5	12.4	21.0	39,127	21.7
Wyoming	28,365	3,024	1.7	9,516	2,537	375.18	158.53	42.3	22.0	13.9	20.1	2,537	25.4

Source: U.S. Department of Labor, Employment and Training Administration, Unemployment Insurance Service, June 19, 1992.