

CBO PAPERS

**REEMPLOYING DEFENSE WORKERS:
CURRENT EXPERIENCES AND
POLICY ALTERNATIVES**

August 1993



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NOTES

When associated with budget numbers, years are fiscal years. When associated with economic or employment projections, years are calendar years, unless otherwise indicated.

Numbers in the tables of this paper may not add to totals because of rounding.

PREFACE

With defense spending falling worldwide, the United States and other developed nations are wrestling with the challenge of converting important segments of their economies from defense production to alternative uses. This Congressional Budget Office (CBO) paper examines the experiences of workers who have lost their defense jobs and discusses alternative strategies for easing their transition to new employment. It was prepared for the Senate and House Committees on the Budget in response to a request issued during the 102nd Congress. In keeping with CBO's mandate to perform objective analysis, the paper contains no recommendations.

This paper was prepared by R. William Thomas, G. Wayne Glass, and Marvin M. Smith of CBO's National Security Division under the supervision of Robert F. Hale. The authors wish to express their appreciation to a number of people, notably the directors of personnel at defense firms who provided data on their work forces and laid-off employees, as well as the directors of job placement and training centers serving displaced defense workers who supplied information on those using their services. At the Bureau of Labor Statistics, Sharon P. Brown and Lewis B. Siegel of the Division of Local Area Unemployment Statistics performed special tabulations of data on mass layoffs at CBO's request.

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Director

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SUMMARY

In the wake of the Cold War, major reductions in defense spending are likely to continue. The budget plan the Clinton Administration submitted to the Congress would result in outlays for national defense of \$253 billion in fiscal year 1998. That amount translates to \$228 billion in 1993 dollars, a real decline of 22 percent compared with defense outlays in 1993 and 34 percent compared with 1987, when national defense outlays reached their recent peak level.

MAGNITUDE OF DEFENSE-RELATED JOB DECLINES

These sharp spending cutbacks will reduce defense employment substantially. In 1992, an estimated 5.45 million people worked in defense-related jobs--about 4.2 percent of the total U.S. labor force (see Summary Table 1). Under the Clinton Administration's plans for defense spending, about 1.4 million defense-related jobs will disappear between 1992 and 1998, half a million more than estimated under the defense spending plans of the Bush Administration. About 815,000 of those 1.4 million defense-related job losses would occur among private-sector workers, who are the focus of this paper.

The job reduction projected to occur over the 1992-1998 period would add to losses already experienced. Between 1987 and 1992, defense-related jobs in the private sector declined by nearly 700,000. Over that same period, the Department of Defense (DoD) decreased active-duty military personnel by 363,000 and DoD civilian employees by 104,000. Thus, a total of nearly 1.2 million defense-related jobs were eliminated between 1987 and 1992.

PROGRAMS EXIST TO ASSIST WORKERS TO FIND NEW JOBS

A number of programs support workers who are displaced from their defense jobs in the private sector. Some are general programs for which all workers may qualify; others are targeted specifically toward defense workers.

SUMMARY TABLE 1. DEFENSE-RELATED EMPLOYMENT
(In thousands)

	1992 Estimate	1998 Projection
Defense-Related Public-Sector Employees		
Active-duty military personnel ^a	1,880	1,475
Defense civilian employees ^b	<u>905</u>	<u>755</u>
Subtotal	2,785	2,230
Defense-Related Private-Sector Employees		
Direct (Prime contractors and key subcontractors)	1,650	1,120
Indirect (Suppliers, service providers, other subcontractors)	<u>1,020</u>	<u>735</u>
Subtotal	2,670	1,855
Total	5,455	4,085

SOURCES: Department of Defense data for active-duty personnel and DoD civilian employees; Congressional Budget Office estimates using the INFORUM model for private-sector workers.

- a. Includes National Guard and Reserve personnel on full-time duty.
b. Excludes direct-hire foreign nationals.

Programs That Assist All Workers

The largest of these programs is the unemployment insurance system, which is a joint federal/state program that provides cash payments to those who are unemployed. Other important assistance is provided for under Title III of the Job Training Partnership Act (JTPA). Title III provides job-search assistance, training, and other types of support to those who lose jobs because of mass layoffs or plant closings.

In order to learn more about how displaced defense workers use some of these benefits, the Congressional Budget Office requested information from JTPA coordinators and other local employment and training organizations that provided assistance to laid-off defense workers. Although not necessarily representative of all such programs, the information they supplied provides useful insight into the experiences of former defense workers. It reports the experiences of some 13,000 displaced defense workers who participated over the 1988-1992 period.

Job-search assistance was the JTPA service most used by displaced defense workers. The former defense workers who participated in JTPA programs were somewhat older and better educated, and they earned considerably more, than the average JTPA participant. Managers and professionals--who represent a substantial fraction of displaced defense workers--made relatively less use of JTPA services than did production workers.

Programs Targeted Toward Defense Workers

Some assistance programs are aimed specifically at defense workers. In 1993, the Congress appropriated about \$1.6 billion for such targeted assistance. Some of those funds were provided to communities that experienced dislocation because of the defense drawdown. Other funding went to firms and other private organizations for dual-use technology programs. Those programs will provide employment for some defense technical personnel and may eventually generate additional jobs for displaced production workers as well. Still other funds provided assistance directly to defense workers who become unemployed.

This directed assistance may increase in the future. The President has proposed spending \$19.3 billion over the 1993-1997 period to assist with defense reinvestment and conversion. About 73 percent of that amount--or \$14.0 billion--would go toward the Administration's dual-use and high-technology initiatives: this assistance could help to reemploy or keep

employed former defense workers through grants and contracts for new research and development initiatives. Some \$5.3 billion, or one-quarter of the five-year total, would provide training and other forms of assistance to displaced workers, though much of those funds are earmarked for former military personnel and DoD civilian employees. Funding for community assistance programs represents only about 2 percent of the planned total.

Desirability of Targeted Assistance

Should the Congress target substantial amounts of assistance specifically toward former defense workers? There are arguments against such targeting. Existing safety-net programs, such as unemployment insurance, already provide substantial benefits to those who lose their jobs. Moreover, information available about the characteristics of defense workers, though quite limited, suggests that they would expect to have a relatively easier time finding new employment than the average displaced worker. Former defense workers tend to have higher skill levels, and fewer displaced defense workers are women or members of minority groups. Finally, though data are again limited, displaced defense workers do not appear to be faring any worse in their job search than other workers caught in mass layoffs. Notably, the rate at which former defense workers are exhausting their unemployment insurance benefits is about the same as that of other workers.

There are also arguments in favor of targeting assistance toward displaced defense workers. The extraordinary reduction in defense jobs now taking place could not be anticipated. The military's need for highly sophisticated weapons led many companies and workers to develop specialized skills that are not easily transferred to the private sector. Existing training programs--which are often oriented toward enhancing basic skills--may not provide the services displaced defense workers need. Finally, the geographic concentration of defense work makes the effects of large layoffs more severe.

HOW TO CHOOSE AMONG TYPES OF TARGETED ASSISTANCE

If assistance for defense conversion is to be provided, what form should it take? In the near term, assistance delivered directly to individuals--rather than through firms or community assistance programs--would seem to have the greatest potential to assist displaced defense workers. Assistance to individuals helps the unemployed retrain for alternative types of work and provides support while they seek a new job.

Assistance to firms to encourage the development of high-technology programs constitutes the largest share of the President's proposed funding for defense conversion. The desirability of this emphasis should be primarily judged on grounds other than meeting the needs of those displaced from their defense jobs. The proposed assistance is part of the Clinton Administration's new technology policy, which aims to increase and improve the contribution of federal research and development efforts to economic growth. The merits of that new policy should dictate the magnitude and nature of funding for this program.

In the end, the best solution for displaced defense workers, and for others unfortunate enough to lose their jobs, is not more federal or state programs. Rather, it is a growing economy. If the U.S. economy gradually returns toward full use of its economic capacity, it would generate 9 million additional new jobs (nearly 2 million a year) over the 1993-1997 period. This figure exceeds projected defense job losses by a factor of more than seven. If such growth occurs, therefore, the labor market could absorb displaced defense workers much more easily than did the relatively stagnant economy of recent years. Even so, however, defense workers may find it difficult to secure new jobs equivalent to those they lost.

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CHAPTER I

INTRODUCTION

Over the next few years, defense spending will decline significantly, but at a moderate pace. Budgetary outlays for national defense--adjusted for inflation--are slated to drop from their current level of \$293 billion to \$228 billion by 1998 under the plans of the Clinton Administration.¹ That would represent a decline of 22 percent from the 1993 level and 34 percent from the 1987 value.

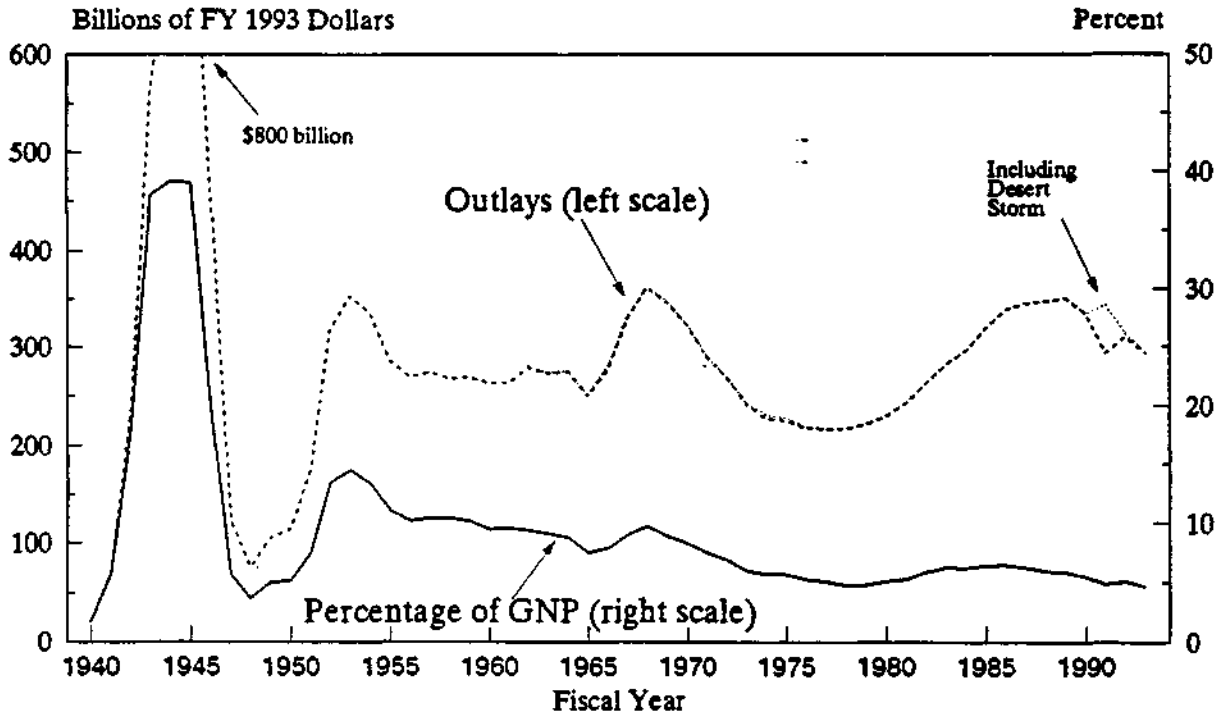
When viewed relative to the size of the U.S. economy, the current drawdown is both smaller and more gradual than those that followed earlier wars. Between 1987 and 1993, defense spending was reduced from 6.3 percent to 4.8 percent of gross domestic product (GDP)--a 1.5 percentage point decline. The Clinton Administration's plan would reduce defense spending by an additional 1.6 percentage points of GDP between 1993 and 1998, bringing the overall decline to almost 3 percentage points of GDP over a total of 11 years. In contrast, after the Korean conflict, defense spending was reduced from 14.5 percent of GDP in 1953 to 10.2 percent in 1956--a decline of 4.3 percentage points in only three years (see Figure 1). During the Vietnam drawdown, defense spending was reduced by 3.9 percentage points of GDP over the six-year interval 1968-1974.

SIGNIFICANT DECLINES IN EMPLOYMENT

Although more gradual than past drawdowns, the spending cutbacks now planned will have significant effects on defense-related employment. In 1992, about 5.45 million people were employed in defense-related jobs in the public and private sector. The Congressional Budget Office (CBO) estimates that, under the plans of the Clinton Administration, about 1.4 million defense-related jobs will disappear between 1992 and 1998, an increase of about half a million compared with the decline that was anticipated under the final

1. This paper measures defense spending by outlays--the appropriate measure for estimating economic impacts.

Figure 1. National Defense Outlays



SOURCE: Congressional Budget Office.

spending plan submitted by the Bush Administration.² Other estimates place potential losses at even greater amounts.³

A substantial portion of these job losses would occur among private-sector workers, who are the focus of this paper. According to CBO projections, the Clinton plan for defense spending would result in the loss of about 815,000 defense jobs in the private sector between 1992 and 1998. An estimated 530,000, or about two-thirds of those jobs, represent losses of direct defense jobs--workers engaged in defense contract work. The remaining one-third of the losses are among indirect defense jobs--workers who supply goods and services to defense contractors.

These projected losses come on top of hefty reductions that have already occurred. Private-sector employment for defense production peaked in 1987 at a level of nearly 3.4 million. Between 1987 and 1992, about 700,000 of those jobs disappeared (see Figure 2). The pace of the job losses also accelerated during this period. In 1988 and 1989, private-sector jobs declined at a modest rate of 35,000 a year. That pace picked up to an average of 207,000 jobs a year over the 1990-1992 period. Undoubtedly, this reduction in defense employment contributed to the severity of the recent recession.

Fortunately, not all the workers whose defense jobs are eliminated will experience a substantial spell of unemployment. Many will find employment within nondefense firms whose businesses are growing. Projected cuts in defense-related jobs, however, do indicate the extent of the conversion problem that the United States faces as the defense budget is reduced in the post-Cold War era.

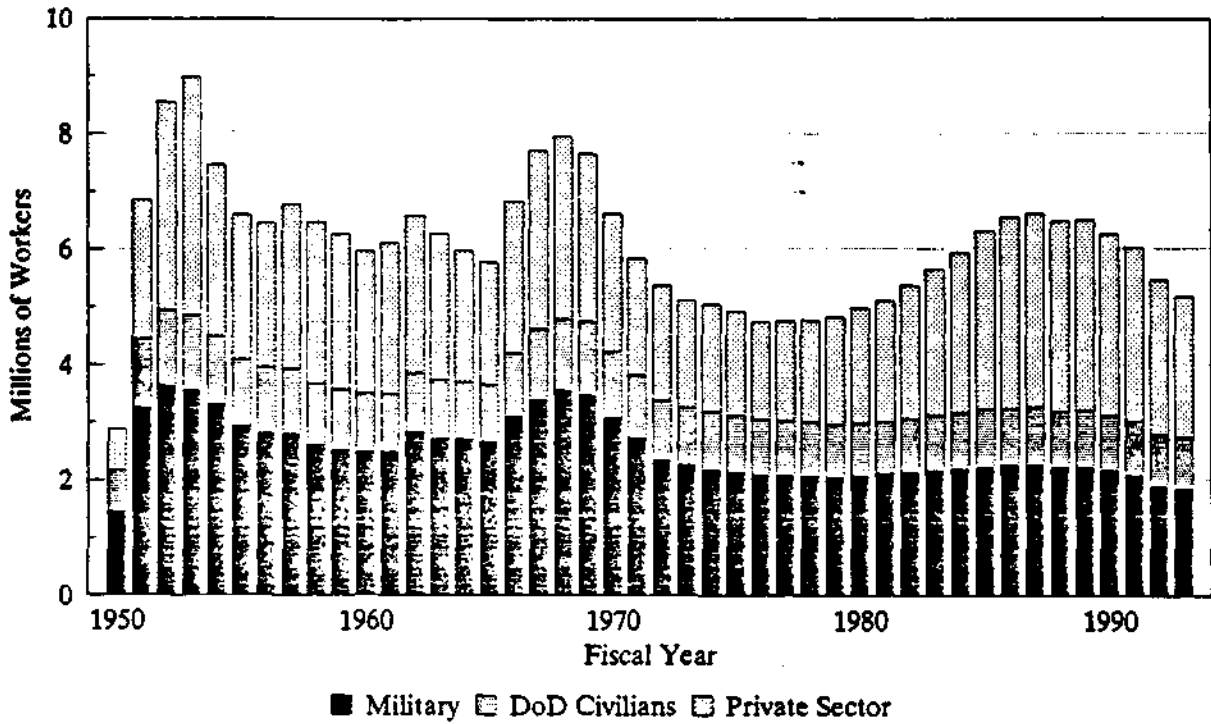
PROGRAMS TO ASSIST THOSE WHO LOSE THEIR JOBS

Defense workers who lose their jobs will benefit from a variety of federal programs designed to ease the transition from defense to nondefense work. Some programs--such as the unemployment insurance system--are available to all workers who lose their jobs, whether in defense or nondefense indus-

2. Congressional Budget Office, "Effects of Alternative Defense Budgets on Employment," CBO Paper (April 1993), p. xv.

3. The Bureau of Labor Statistics, in one instance, estimates that job losses in the defense sector could be as high as 1.86 million by 1997. See Norman C. Saunders, "Employment Effects of the Rise and Fall in Defense Spending," *Monthly Labor Review* (April 1993), pp. 3-10.

Figure 2. Defense-Related Employment, 1950-1993



SOURCE: Congressional Budget Office based on Department of Defense data.

tries. Other programs have been created specifically to assist former defense workers. The President has repeatedly expressed his support for efforts at defense conversion. Indeed, he recently announced a plan to spend \$19.3 billion during 1993 through 1997 to continue and expand conversion efforts.

The Congress will debate the President's conversion plan as it deliberates on 1994 appropriations. This CBO paper provides information to inform that debate. The information is designed to help answer several questions: What programs exist to help workers who lose their jobs, and how many of these are targeted specifically toward former defense workers? Are targeted programs needed to address the problems of defense economic conversion or will programs available to all unemployed workers suffice? If targeted programs are created, should they be oriented more toward aiding individual workers who have lost jobs, helping communities to adjust their economic bases, or providing opportunities for defense firms so that they can create new jobs that may employ former defense workers?

CHAPTER II
PROGRAMS TO ASSIST DISPLACED
DEFENSE WORKERS IN FINDING EMPLOYMENT

Workers displaced from private-sector defense jobs can currently receive assistance from several federal and state programs. Additional aid would become available under plans proposed by the Clinton Administration.

EXISTING PROGRAMS THAT ASSIST
ALL THOSE WHO LOSE THEIR JOBS

Displaced defense workers can take advantage of the programs established by the Congress to assist all unemployed people. Indeed, some might argue that these general programs are all that are required to assist defense workers who face unemployment.

Unemployment Insurance

The largest of those programs is the unemployment insurance (UI) system. In 1992, UI benefit payments totaled \$37 billion, a record amount. The federal government is a partner with the states in the UI system. The states provide basic cash benefits to unemployed workers for up to 26 weeks. When unemployment in a state is sufficiently high, the federal/state Extended Benefit program provides additional weeks of benefits. The Emergency Unemployment Compensation program, enacted in 1991 and amended in 1992 and 1993, temporarily enables unemployed workers who have exhausted regular UI benefits to get further payments.

Only about three out of every five displaced workers in the United States actually received benefits under UI in the 1980s.¹ The other 40 percent either did not qualify or chose not to apply. Workers who did not receive benefits may have immediately found new jobs or may have been unemployed only for a short period, perhaps less than the waiting period of one week that most states require between the beginning of unemployment and the time that UI benefits can begin. The likelihood of receiving benefits rises with the duration of unemployment.

1. Congressional Budget Office, *Displaced Workers: Trends in the 1980s and Implications for the Future* (February 1993), p. 28.

Most displaced defense workers should qualify for unemployment benefits. Indeed, they might be expected to file claims in a greater proportion than all unemployed workers because they would not expect to be called back to work.

Job Training Partnership Act

Apart from unemployment insurance, the program that may be most helpful to displaced defense workers who seek new employment is Title III of the Job Training Partnership Act (JTPA). In general, Title III funds state programs specifically designed to assist workers who have been or are subject to being laid off as part of a mass layoff or closure of a plant or other facility.²

States can offer assistance through their existing agencies. They can also provide funds to other service delivery organizations such as private industry councils, educational institutions, local community-based groups, designated employers, or unions. The range of services offered include job training and placement, assistance with relocation, and ancillary services during training such as transportation allowances and child care.

In 1988, the Congress added to these JTPA benefits. It amended Title III of the JTPA by enacting the Economic Dislocation and Worker Adjustment Assistance Act (EDWAA). EDWAA improved on and expanded the retraining and readjustment assistance available to dislocated workers. For purposes of administering JTPA and EDWAA, the governor of each state must designate one or more "substate areas."³ Services are designed to be delivered at the local level in the substate areas. In addition, each state maintains a Dislocated Worker Unit (DWU) that gives rapid assistance when notified of current or projected plant closings and mass layoffs. The Worker Adjustment and Retraining Notification Act might alert the DWU to such major layoffs. Once notified, a DWU can provide an array of on-site services.

What Services Can Defense Workers Use? To learn more about how displaced defense workers use these various benefits, the Congressional Budget Office contacted JTPA coordinators and other local employment and training organizations that provided assistance to laid-off defense workers. Information was received from local sites that were created in response to a large defense layoff and primarily served the defense worker population (see Box 1 and Appendix A for a discussion of the information CBO gathered).

2. Being "subject to layoff" means that the worker has been formally notified of a pending layoff under the provisions of the Worker Adjustment and Retraining Notification Act.

3. A substate area can consist of one or more local governmental units or an entire state.

Although not a random survey, their responses provided information about 13,000 displaced defense workers who participated in the JTPA program between 1988 and 1992.

Displaced defense workers appear to use a wide variety of JTPA services, ranging from job-search assistance to training programs (see Table A-1 in Appendix A for more detail.) Some types of services, however, were used much more frequently than others. The vast majority of the displaced defense workers--more than 85 percent--received some form of job-search assistance. Fewer participants--roughly one in five--enrolled in training programs offered under JTPA. Although most of the services were provided by state employment security offices and other service delivery agencies, some defense contractors provided training and reemployment services for their former employees through in-house transition centers.

Who Participated in These Programs? Information from the local centers is also helpful in determining which groups of workers are more likely to use JTPA services. Hourly workers, for example, appeared to participate with greater frequency than salaried workers. Of those served in the programs contacted by CBO, 80 percent were hourly workers.

Within the hourly worker group, those who participated in JTPA programs appeared to command lower wages than the industry average of \$15.83, but comparable with those of laid-off workers. The former wage of program participants averaged \$13.37, compared with an average of \$12.87 for hourly workers who lost jobs at 13 major defense contractors (see Box 2 and Appendix B for more detail).

Among salaried workers, those with lower earnings and skills also appeared more likely to participate in job assistance programs. Managers and professional employees made up only 19 percent of JTPA program participants. In contrast, fully 35 percent of employees laid off by the 13 major contractors were classified as managers or professional employees. Furthermore, the average salary of the employees laid off by the major contractors was \$37,037 a year, according to their employers. But those salaried employees who used the centers' services reported that they had previously averaged \$32,052 a year.

BOX 1.
JTPA CENTERS SERVING DEFENSE WORKERS

The Congressional Budget Office identified local training centers that were primarily serving workers laid off from defense contractors through information received from the Department of Labor's Employment and Training Administration and from the contractors themselves. Center administrators and state Job Training Partnership Act coordinators were contacted and asked to answer a structured set of questions sent to them by CBO.

The questions included basic information on the number of participants served, their ages, their former occupations, their wage on separation from work, whether they found new employment, and the services provided to them by the center. CBO received replies from centers in nine states reflecting the experiences of 13,110 former defense workers who were program participants from 1988 through 1992.

Comparison with Other JTPA Participants. Information from the JTPA programs, coupled with other JTPA data, suggests that the defense workers who made use of JTPA programs differed significantly from the larger group of JTPA participants. Only 26 percent of the defense workers who participated in the JTPA Title III programs were female--a significantly smaller number than the 43 percent reported for all JTPA participants.⁴ Also, the former earnings of defense workers who participated were considerably greater than the typical JTPA participant. The average hourly wage at the time of displacement for defense workers was \$12.87, compared with an average wage of \$10.06 for all participants under Title III of JTPA. Defense participants were also somewhat better educated. They averaged 13.4 years of educational attainment, compared with an average of 12.5 years reported for all Title III participants.

4. All program data on JTPA Title III participants are for the year 1990. Department of Labor, Employment and Training Administration, "Job Training Quarterly Survey: JTPA Title IIA and III Enrollments and Terminations During Program Year 1990 (July 1990-June 1991)" (January 1992).

BOX 2.
EMPLOYMENT REDUCTION SURVEY
AT MAJOR DEFENSE CONTRACTORS

In August 1992, CBO polled 19 of the largest DoD prime contractors on their employment experience during the defense drawdown. Firms that maintain separate divisions for defense and civilian work were asked to respond only for their defense division(s), if data permitted. Thirteen of the firms responded. Most responses were received in September 1992. Respondents were asked to report their total employment for the years 1986 through 1992 and the number of persons permanently separated from employment (laid off) over that period. For this exercise, data for the 13 firms were combined to preserve individual firm anonymity.

In addition to the combined employment and layoff information, the firms were asked to supply data on both their current labor force and those persons that they laid off. For their current labor force, firms were asked to supply information on the distribution among occupations and between hourly and salaried workers, the age distribution, the educational attainment of their work force, and the distribution of salaries (for salaried workers) and wages (for hourly workers). Those data allowed CBO to compare the characteristics of these defense employees with the work force at large. Identical information was collected for the employees who were laid off, thereby allowing CBO to assess how various groups of employees were faring.

PROGRAMS TARGETED TOWARD DISPLACED DEFENSE WORKERS

Although some programs--like JTPA and unemployment insurance--are open to all displaced workers, others are targeted toward displaced defense workers. In 1993 the Congress authorized special assistance through a variety of programs in three general areas: community assistance, assistance to defense firms, and programs that provide assistance directly to displaced defense employees. About \$1.6 billion was appropriated for these programs in 1993 (see Table 1 for a list of the various programs and their funding levels).

**TABLE 1. FUNDING FOR DEFENSE CONVERSION, REINVESTMENT,
AND TRANSITION ASSISTANCE**
(In millions of dollars, by fiscal year)

	1993 ^a	Proposed 1994
Department of Defense Dual-Use Reinvestment Programs		
Defense Reinvestment Programs		
Dual-use technology partnerships	95	148
Commercial-military integration partnership	48	35
Regional technology alliances	95	85
Agile manufacturing and enterprise integration	29	20
Advanced materials partnership	29	24
Advanced manufacturing technology partnerships	24	30
Manufacturing engineering education program	29	20
U.S.-Japan management training	<u>9</u>	<u>5</u>
Subtotal	357	367
Manufacturing/Technology Extension Program	190	25
Other ^b	24	0
Electronics and Materials Initiatives		
High-definition systems	122	87
Opto-electronics	23	38
Metal matrix and ceramics	9	10
Diamond substrates	9	10
Multichip modules/high-temperature superconductivity	14	15
Battery technology	0	6
Multichip modules	22	30
Advanced lithography	71	48
Composite materials manufacturing	<u>0</u>	<u>4</u>
Subtotal	271	248
Small Business Innovative Research Directed to Dual-Use Areas	85	161
Additional Dual-Use Initiatives ^c	<u>0</u>	<u>89</u>
Total	927	890

(Continued)

TABLE 1. CONTINUED

	1993 ^a	Proposed 1994
Personnel Assistance and Community Support Programs		
Community Adjustment and Assistance Programs		
Office of Economic Adjustment	30	29
Philadelphia Naval Shipyard economic conversion	50	0
Community diversification	<u>80^d</u>	<u>e</u>
Subtotal	160	29
Personnel Assistance Programs		
Temporary early retirement	53	319
Temporary health transition assistance	11	12
Guard and Reserve transition initiatives	40	50
Separation pay and civilian health benefits	72	100
Troops to teachers	6	0
DoD environmental scholarship program	13	7
Job training and employment services	75 ^f	g
Job bank program	4	0
Occupational conversion and training	75 ^h	0
Transition assistance/relocation assistance	60	67
Junior ROTC	50	73
High school academies	14	16
National Guard civilian youth opportunity pilot program	20	20
Civilian Community Corps	20	0
Commission on National Service programs	<u>20</u>	<u>0</u>
Subtotal	533	664
Total	693	693
Total		
Defense Reinvestment and Economic Growth Funding in the National Defense Budget	1,620	1,583

SOURCE: Congressional Budget Office based on National Economic Commission memorandum (May 26, 1993).

- a. Amounts reflect programming by the Administration in some cases.
- b. Includes several projects transferred to the Advanced Research Projects Agency (ARPA) for fiscal year 1993.
- c. Changes from the fiscal year 1993 level of funding for ongoing ARPA programs.
- d. These funds were transferred to the Economic Development Administration in the Department of Commerce.
- e. The Department of Commerce budget for fiscal year 1994 includes \$33 million for this purpose.
- f. These funds were transferred to the Department of Labor.
- g. The Department of Labor budget for fiscal year 1994 includes \$300 million for this purpose.
- h. These funds have been transferred to the Departments of Labor and Veterans Affairs.

Community Assistance Programs

The community assistance program administered by DoD's Office of Economic Adjustment (OEA) assists in making plans for the reuse of military bases that are being closed. The planning is designed to accelerate the reuse of base property and to minimize the economic dislocation caused by the military's departure. Since its creation in 1961, OEA has helped to plan the recovery of more than 100 communities affected by the closing of a local military base. Often the process of transition has taken many years to accomplish. But former military bases have eventually been converted to colleges, technical institutes, industrial parks, airports, prisons, wildlife refuges, and other uses. The Congress provided \$30 million in fiscal year 1993 for OEA activities.⁵

The relatively small planning grants provided by OEA to local communities will not in themselves create jobs in the near term. But jobs could be created by another type of community assistance--namely, programs authorized under Title IX of the Economic Development Act (EDA).⁶ These programs provide grants and revolving loans to support business development, technical assistance, public works, and other such projects in communities that are experiencing sudden and severe economic dislocation. In 1993, the Congress appropriated \$80 million in defense funds specifically for grants to communities experiencing problems associated with declining defense activities. That funding is in addition to the \$206 million authorized for EDA's overall activities.

Assistance to Firms Through Reinvestment Programs

In the National Defense Authorization Act for 1993, the Congress created the Technology Reinvestment Project (TRP). TRP includes a number of programs to encourage development and dissemination of dual-use goods and technologies--that is, goods and technologies that can be used in both military and civilian markets. These dual-use efforts may create employment opportunities for displaced defense workers either in defense firms or in nondefense firms that diversify into dual-use areas. In 1993, funding for TRP programs amounted to about \$480 million.

5. This amount does not include a special one-time appropriation of \$50 million for conversion planning associated with the closure of the Philadelphia Naval Shipyard.

6. The Sudden and Severe Economic Dislocation program provides for grants to areas that have suffered economic dislocations to develop and implement an adjustment strategy.

TRP programs will be of three varieties: technology development programs, technology deployment programs, and education and training in manufacturing. Technology development programs will provide seed money to cultivate new dual-use technologies and explore their application. A typical technology development program might, for example, foster research on special materials for high-speed computer chips. Technology deployment programs will help transfer existing technical knowledge to businesses--particularly small businesses--that in the past have relied on defense sales. Deployment programs might, for example, develop electronic networks to disseminate information about novel methods of production. Manufacturing education and training grants are intended to encourage academic organizations to develop more practical programs in manufacturing engineering. One use of such programs could be to help defray the cost of bringing more practicing engineers into the classroom on a temporary basis.⁷

Assistance to Individuals

The 1993 Defense Authorization Act also created programs to provide assistance directly to former defense workers. Some of these programs are designed to aid those who lose jobs in the private sector. Under the legislation, displaced defense workers can receive assistance to retrain to become teachers or teacher's aides in elementary and secondary schools. A \$5,000 stipend would be paid to program participants while they are obtaining certification or a license. Once a qualified participant is hired as a teacher or teacher's aide, the program will reimburse the employer by the lesser of \$50,000 or the amount of the participant's basic salary for two years.

In addition, the 1993 legislation establishes a program to provide scholarships and fellowships for individuals who lose defense jobs and choose to pursue a degree in fields related to environmental restoration and waste management. When recipients complete their education, they would be required, if selected by the Secretary of Defense, to serve in an environmental restoration or other environmental position in the Department of Defense for a period ranging from 12 to 24 months. This retraining effort would be enhanced by grants to institutions of higher education that establish environmental training programs.

To further increase reemployment opportunities, the 1993 authorization act would have the Secretary of Defense establish a program to expand the access

7. For more detailed discussion, see Congressional Budget Office, "The Technology Reinvestment Project: Integrating Military and Civilian Industries." CBO Paper (July 1993).

of defense workers to the Interstate Job Bank operated by the United States Employment Service. Among the services included in the Interstate Job Bank are the following: a phone bank accessible by a toll-free number for information about services available under the JTPA and related transition programs; Interstate Job Bank satellite offices strategically located at defense contractor plants and all military bases; and a system that allows greater access by individuals and organizations (both public and private) to the Interstate Job Bank with the use of individual modems or related automated systems. In addition, the 1993 authorization act calls for integrating specialized job banks, such as the Defense Outplacement Referral System and the National Academy of Sciences Network, with the Interstate Job Bank.

THE ADMINISTRATION'S PROPOSED PROGRAM

How might the assistance programs targeted toward displaced defense workers change in coming years? Because of the Defense Conversion Initiative that was announced by President Clinton in March 1993, some forms of assistance could be expanded significantly. That initiative proposes devoting a total of \$19.3 billion to defense conversion activities from 1993 through 1997 (see Table 2).

Under the President's initiative, a relatively small amount of that total would increase funds for community assistance. Specifically, the community diversification programs administered by the Department of Commerce would receive \$33 million in 1994 and \$55 million a year thereafter. Community assistance programs funded within the DoD budget will also continue and may be expanded. For 1994, the Clinton Administration requested funding of \$29 million for DoD's Office of Economic Adjustment.

A larger share of funding under the President's initiative would be provided directly to defense workers who lose their jobs in the private sector. Funds for training displaced defense workers, which are administered by the Department of Labor, would burgeon to \$300 million in 1994 and \$400 million a year thereafter. (Public-sector workers who lose defense jobs would also be eligible to receive additional funds.)

TABLE 2. DEFENSE REINVESTMENT AND ECONOMIC CONVERSION INITIATIVES
(Budget authority, in millions of dollars)

	1993	1994	1995	1996	1997	1993- 1997
Assistance for Defense Workers, Personnel, and Communities						
Department of Defense personnel assistance and community support	693	693	693 ^a	693 ^a	693 ^a	3,465
Department of Energy personnel assistance	25	100	0	0	0	125
Department of Labor displaced worker training	b	300 ^c	400 ^c	400 ^c	400 ^c	1,500
Department of Commerce community diversification assistance	<u>d</u>	<u>33</u>	<u>55</u>	<u>55</u>	<u>55</u>	<u>198</u>
Subtotal	718	1,126	1,148	1,148	1,148	5,288
Department of Defense Dual-Use Technology Reinvestment ^e	927	890	890 ^a	890 ^a	890 ^a	4,487
New Federal High-Technology Investments (Conversion opportunities) ^f	<u>47</u>	<u>1,206</u>	<u>2,329</u>	<u>2,758</u>	<u>3,175</u>	<u>9,515</u>
Total	1,692	3,222	4,367	4,796	5,213	19,290

SOURCE: Congressional Budget Office based on data from the National Economic Council.

- This figure represents the 1994 level. Specific estimates for 1995, 1996, and 1997 will not be available until the Department of Defense completes its comprehensive review of defense programs this year.
- \$76 million has been transferred in 1993 from the Department of Defense.
- This is the portion of overall investment increase that could be expected to be used to retrain displaced defense workers.
- In addition, \$80 million will be transferred in 1993 from the Department of Defense.
- This amount excludes impact of broadened scope of allowable independent research and development reimbursement.
- This amount includes investment programs that provide some conversion opportunities (for example, Department of Energy industry research and development partnerships and National Aeronautics and Space Administration civil aviation research) and 50 percent of programs that provide some conversion opportunities (for example, Department of Commerce programs for information highways, manufacturing, and advanced technology). Not included are increases for enterprise zones, Community Development Banks, the National Science Foundation, highway programs, and the research and development tax credit that will provide opportunities for defense firms and workers and help develop infrastructure useful for community economic diversification.

By far the largest growth under the President's initiative would take the form of increased assistance directed at firms. Although the Administration proposed to keep DoD funding for investment in dual-use technology at a level of about \$900 million, the overall federal investment in high technology would swell dramatically. Under the President's proposal, this high-technology funding would rise to \$1.2 billion in 1994 and to as much as \$3.2 billion in 1997. The exact nature of these projects is not yet clear. But they could lead to creating jobs, some of which would be filled by workers displaced from their defense jobs. (The estimates in the President's plan assume that 50 percent of projected funds would support defense economic conversion.)

CHAPTER III

ASSESSING THE NEED FOR TARGETING

ASSISTANCE TOWARD DEFENSE WORKERS

As it debates the President's proposed expansion of defense conversion programs, the Congress must weigh the merits of targeting assistance toward displaced defense workers rather than meeting their needs through programs already available to all workers who lose their jobs.

ARGUMENTS IN FAVOR OF TARGETED ASSISTANCE

Perhaps the most compelling argument for targeting assistance toward displaced defense workers is the origin of their plight. The end of the Cold War is hardly the fault of defense workers. On the contrary, the effectiveness of their efforts may have helped persuade the former Soviet Union to take the steps that ended superpower hostilities, which in turn led to the sharp reduction in defense jobs in this country. The end of the Cold War also occurred with little warning, which made it impossible for firms and workers to anticipate the decline in jobs and so ease the conversion.

For these reasons, many policymakers would argue that the government has a responsibility to ease the transition of defense workers to alternative employment. Such assistance is not without precedent. The government has, for example, provided special adjustment assistance when changes in government trade policies led U.S. producers to lose sales in foreign countries.

Limits of Existing Programs

Existing programs may not be well suited to meeting the needs of some defense workers. The Job Training Partnership Act program may provide an example. As was noted above, defense workers in major firms tend to be more highly educated and more skilled than the average JTPA client. Traditional JTPA training programs, which are more oriented toward basic skills, may be of limited value to some of these individuals. A JTPA program targeted toward defense workers could create specialized training programs designed to assist engineers and skilled operators and technicians to retrain for new careers.

Specialization of Defense Workers' Skills

Targeted assistance may also be appropriate because U.S. government policies have led to specialization in the defense industries, making the transition for workers from defense to nondefense jobs potentially more rocky. For many years, the Department of Defense has been concerned with maintaining an ability to build weapons domestically, even though analogous commercial production has migrated offshore. As a result, U.S. defense workers in specialized industries such as shipbuilding and defense electronic components have few opportunities to find comparable work in the commercial sector. Even in industries where the U.S. retains substantial commercial production, such as aircraft, DoD has demanded highly sophisticated products that incorporate features with little commercial value, such as stealth technology. Consequently, the skills of some defense workers are not easily transferred to the civilian sector.

Defense workers in positions such as marketing and contract administration would seemingly have an easier time finding new jobs. But their specialization in DoD's unique and complicated contracting procedures may have little value in the commercial arena. Small wonder that many defense firms, in exploring new business opportunities, turn first to federal nondefense and other government contract work before trying to enter commercial markets.

The problem of transferring to nondefense jobs is particularly acute for defense employees in industries dominated by defense work. (See Table 3 for the six industries that depend most significantly on defense contracts.) Defense contracts accounted for one-third or more of sales for the industries listed in the table. About 640,000 workers were involved in defense-related production in these specialized industries in 1992.

Even for defense workers with transferrable skills, the nature of the defense work force as a whole could work against them. Most defense workers design and produce goods--about 57 percent of direct defense workers in the private sector have manufacturing-related jobs.¹ But U.S. manufacturing jobs are not growing. During the 1980s, the number of manufacturing jobs hovered around 19 million; as a result of the recession, they have since fallen by 5 percent from the 1990 level. Today, only about one in six U.S. employees works in manufacturing. Certain areas of the country have been particularly hard hit by that decline. In New England, for

1. Office of Technology Assessment, *After the Cold War: Living with Lower Defense Spending* (February 1992), p. 62.

TABLE 3. INDUSTRIES THAT DEPEND HEAVILY ON DEFENSE

Industry (1977 SIC Code)	1992 Output (Billions of dollars)	Defense Employment (Thousands)	Defense as Share of Employment (Percent)
Aircraft and Parts ^a	115.1	295	44
Guided Missiles (3761)	19.3	87	75
Ordnance and Accessories ^b	11.4	39	66
Search, Navigation, and Communication Equipment (3662)	50.3	126	35
Shipbuilding (3731)	9.5	93	79
Tanks and Tank Components (3795)	2.5	n.a.	n.a.

SOURCE: Output figures are from the Congressional Budget Office using the INFORUM model; employment numbers are from Norman C. Saunders, "Employment Effects of the Rise and Fall in Defense Spending," *Monthly Labor Review* (April 1993), pp. 6-7.

NOTES: SIC = Standard Industrial Classification; n.a. = not available.

a. Includes aircraft (3721), aircraft and missile engines and engine parts (3724, 3764), and aircraft and missile equipment not elsewhere classified (n.e.c.) (3728, 3769).

b. Includes ammunition (3482, 3483), small arms (3484), and other ordnance and accessories (3489).

example, employment in durable goods manufacturing plunged by 130,000 jobs from 1984 to 1988, while national employment rose.²

For this reason, production workers who used to make weapons face particularly tough obstacles in finding jobs that use their skills and offer comparable pay. Workers released from shrinking industries tend to suffer a longer spell of unemployment than workers from growing industries.³

Geographic Concentration of Defense Work

Another argument for targeted assistance is the geographic concentration of defense work. Ten large states with 47.5 percent of the U.S. population received 58 percent of defense dollars in 1992. Defense production is also concentrated within those states. In California, for example, three of the state's 51 counties--Los Angeles, Santa Clara, and Orange--accounted for more than two-thirds of total state defense contracts.⁴ (Residents of the three counties represent 43 percent of California's population.)

In the past, geographic concentration helped defense workers: if one employer's work load slackened, employees could switch to another local firm where new work was starting without having to move their homes and disrupt their families' lives. But now that all defense employers are cutting back employment, concentration really hurts. The large numbers of displaced defense workers may sometimes far exceed the local area's potential for creating new jobs.

The geographic concentration of displaced defense workers argues most strongly for assistance targeted toward communities and individuals. Community needs are obvious. Not only must they plan ways to attract new employers to replace the lost defense jobs, communities hard hit by the defense decline must also maintain their physical infrastructure and social programs in the face of less local tax revenue. Individual assistance programs have the advantage of accruing naturally to those areas with the largest number of eligible individuals. JTPA programs aimed at defense workers, for

2. Edward Moscovitch, "The Downturn in the New England Economy: What Lies Behind It?" *New England Economic Review* (July/August 1990), pp. 53-65.

3. This and subsequent characterizations of the experience of displaced workers are drawn from Congressional Budget Office, *Displaced Workers: Trends in the 1980s and Implications for the Future* (February 1993). For findings on the effect of industry on duration of unemployment, see p. 21.

4. State of California, Commission on State Finance, *Impact of Defense Cuts on California* (Fall 1992), p. 41.

example, would focus their resources on local areas that had large numbers of potential participants.

ARGUMENTS AGAINST TARGETED PROGRAMS

Policymakers offer pros and cons for targeting assistance toward displaced defense workers.

Existing Programs May Be Adequate

Income to meet basic needs while they find another job is one of the most important forms of assistance needed by unemployed workers. The unemployment insurance program provides weekly cash benefits to all experienced workers who lose their jobs and meet the eligibility criteria. This assistance is available for up to 26 weeks. Reacting to the increased length of joblessness linked to the recent recession and hesitant recovery, the Congress has provided extended unemployment benefits (for up to 26 additional weeks) to workers who exhaust their eligibility for regular benefits.

Rather than investing substantial funds in programs targeted toward former defense workers, the Congress could use those funds to help pay for increases in funding for existing programs if such increases are needed to meet the needs of the unemployed. In this way, states would be free to allocate funding to the people and local areas with the greatest need, whether their unemployment problems stemmed from defense cuts or other sources.

The nature of the defense drawdown may also argue for avoiding targeted programs. Large layoffs will continue for another three to four years under the Clinton Administration's plans for cutting defense spending. But after that defense spending could stabilize, ending the recent period of extraordinary job losses. If targeted programs are created to meet a temporary problem, they may continue to draw on budgetary resources even after the need for them has abated. In short, it is always easier to create a program than to terminate one.

Defense Workers Better Off by Some Measures

The case against targeting benefits toward defense workers is supported by studies of worker characteristics. Some characteristics, such as age and certain demographic variables, are related to the ease of finding new

employment. Comprehensive data about the characteristics of displaced defense workers are not available. The data that do exist, however, suggest that displaced defense workers as a group are better off than all other displaced workers in terms of characteristics that affect reemployment.

The Bureau of Labor Statistics (BLS) maintains data on workers involved in mass layoffs--that is, layoffs that occur within a three-week period and involve 50 or more personnel at one job site. According to the BLS data, minority groups and women were less frequently represented among defense workers involved in mass layoffs than is the case for all workers. For example, among workers subject to mass layoffs who filed claims for unemployment insurance between January 1990 and June 1992, African-Americans constituted 22 percent of all filers but only 11 percent of former defense workers. Hispanic-Americans and women were similarly underrepresented in the defense group relative to the overall sample (see Figure C-1 in Appendix C for more detail). These factors are important because studies of worker displacement suggest that certain of these groups tend to experience more difficulty securing new employment, as measured by duration of unemployment and probability of reemployment.⁵

According to information received by CBO from the 13 major defense contractors, defense workers also tended to have higher skills than manufacturing workers in general. Those firms reported that managers and professionals together make up 48 percent of their workers. In contrast, these same groups represent only about 23 percent of all manufacturing employees (see Table B-2 in Appendix B for more detail). These large defense firms also employed a much smaller proportion of semi-skilled workers (14 percent) compared with the figure for all manufacturing employees (40 percent).

Some Problems Shared with Nondefense Workers

Displaced workers in other fields also experience problems such as industry and geographic concentration that makes it hard to find new jobs. For example, defense jobs are concentrated in the manufacturing sector, but so are the jobs of many other displaced workers. In 1988, 48 percent of all displaced workers were formerly employed in goods-producing industries, but goods-producing industries employed only 24 percent of all workers.⁶ In other words, employees of goods-producing industries were twice as likely to

5. Congressional Budget Office, *Displaced Workers*, pp. 15, 21.

6. *Ibid.*, p. 9.

experience displacement as the average worker. Such shared problems may argue against providing special benefits for displaced defense workers.

Defense Workers Are Not Unemployed Longer Than Other Workers

Finally, available evidence indicates that displaced defense workers are undergoing about the same average duration of unemployment as other workers experiencing mass layoffs. In the latter half of 1990, the exhaustion rate--defined as the ratio of those whose benefits have been exhausted to initial claimants two quarters earlier--was the same for displaced defense workers as for all displaced workers. Both groups experienced exhaustion rates of about 17 percent to 18 percent (see Table 4).⁷ In 1991, as the recession took hold, rates rose to about 22 percent, but the differences between the groups remained too small to be significant.

Among categories of displaced defense workers, the exhaustion rates differ. BLS data show that, between January 1990 and June 1992, displaced defense workers who were African-American or female were more likely to use up their UI benefits than were all displaced defense workers (see Figure C-2 in Appendix C). This was not true, however, for Hispanics or older workers who had worked for defense firms.

Finally, both defense workers and those from other industries may face pay cuts when they do find a new job. Defense workers, who historically have commanded premium salaries relative to their peers in other industries, might have been more likely to face a cut in pay in their new employment. This was not true, however, for the workers whose experiences were reported to CBO. Sixty percent of the defense group took a cut in pay. This percentage almost mirrors the experience of all JTPA participants, 61 percent of whom accepted a lower rate of compensation in their new employment.⁸

7. Exhaustion rates reported by the U.S. Employment Service tend to be somewhat higher (around one-third). They exclude those claimants who are found to be ineligible for benefits.

8. Employment and Training Administration, personal communication to the Congressional Budget Office, February 12, 1993.

TABLE 4. INITIAL CLAIMANTS AND EXHAUSTEES OF UNEMPLOYMENT BENEFITS

Year: Quarter	All Workers			Defense Workers			Defense Workers as a Percentage of Total	
	Initial Claimants	Benefits Exhausted	Percentage of Claimants ^a	Initial Claimants	Benefits Exhausted	Percentage of Claimants ^a	Initial Claimants	Exhaustees
1990:								
I	119,872	19,281	n.a.	7,715	552	n.a.	6.4	2.9
II	108,429	18,850	n.a.	4,325	608	n.a.	4.0	3.2
III	103,592	20,668	17	9,527	1,309	17	9.2	6.3
IV	<u>145,362</u>	<u>19,069</u>	18	<u>8,705</u>	<u>794</u>	18	6.0	4.2
Yearly Total	477,255	77,868	17	30,272	3,263	17	6.3	4.2
1991:								
I	257,959	29,091	28	17,840	1,792	19	6.9	6.2
II	157,857	32,600	22	11,877	1,960	23	7.5	6.0
III	134,166	52,652	20	8,193	4,318	24	6.1	8.2
IV	<u>201,890</u>	<u>31,185</u>	20	<u>9,670</u>	<u>2,106</u>	18	4.8	6.8
Yearly Total	751,872	145,528	23	47,580	10,176	21	6.3	7.0
1992:								
I	143,084	30,004	22	13,940	1,499	18	9.7	5.0
II	153,735	34,935	17	16,232	2,424	25	10.6	6.9

SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program, special tabulations, November 1992.

NOTE: n.a. = not applicable.

a. Estimated as the number of those who have exhausted their benefits divided by the number of initial claimants two quarters earlier.

CHAPTER IV

ALTERNATIVE APPROACHES TO

PROVIDING TARGETED ASSISTANCE

After weighing the arguments for and against targeting special benefits toward defense workers, the Congress may decide to enact them. Indeed, several programs are already in place and likely to be continued (see Chapter II). If targeted programs are continued or expanded in the future, what alternative approaches are available and how would they assist defense workers?

Targeted assistance can be indirect or direct. Indirect assistance includes funding to assist firms in exploiting new technologies that are likely to employ people with the same skills as those possessed by defense workers. Indirect assistance can also involve funding to assist communities experiencing high unemployment because military bases or plants have closed. By contrast, direct assistance programs are aimed at defense workers who have lost their jobs. They provide the unemployed with services such as assistance in job search, retraining, and relocation.

ASSISTING FIRMS

The Administration places a high priority on assisting firms and other private-sector organizations. The assistance would be directed toward public/private partnerships that are developing and deploying dual-use technology and other high-technology programs. Budgets planned for this assistance total \$14 billion in the 1993-1997 period, or about 73 percent of the total planned funding for defense conversion in those years.

This assistance to firms may eventually create more jobs, some of which will employ former defense workers. In the near term, however, assistance to firms is not likely to do much to offset job losses in the defense sector. Estimating precisely the immediate effects on employment of the proposed assistance is impossible because detailed plans for spending are not available. As an approximate gauge, however, the \$881 million that the Congress appropriated in 1993 for dual-use technology programs is similar in size to the operating budget for the Los Alamos National Laboratory, a major research and development facility for the Department of Energy. In 1990, Los Alamos cost about \$930 million to operate and directly employed 7,820 people. Including an estimate for indirect workers might double this figure to some 16,000 jobs. Yet, such added employment would be tiny compared with

defense job losses. CBO estimates that in 1993 alone private-sector defense employment will be reduced by about 250,000.

Under the President's initiative for defense conversion, assistance to firms to develop and deploy high-technology programs would grow sharply, reaching about \$4 billion a year by 1997. Even at these higher levels, however, the near-term addition to employment would still not compensate for job losses in the defense sector.

Assistance to firms may be of more significance to certain categories of defense workers, particularly those involved in research and development. Such assistance may also help to preserve key skills within the defense industrial base. Since the nation's military strategy relies heavily on the superiority of its weapons, it is essential to maintain the necessary design and manufacturing skills among the defense work force.

The Defense Conversion Commission--a group appointed by the Congress in 1992 to assess problems and solutions associated with defense conversion--has called on DoD to determine which skills and capabilities in the research and development sector should be maintained to protect the capabilities of the defense industrial base.¹ Once these sectors are identified, the Administration and the Congress could seek ways to ensure that funding under this initiative will meet DoD's requirements for critical skills in the defense work force.

Notwithstanding these advantages, assistance to firms of the sort proposed by the Administration will probably not do much to ease the near-term problems of defense conversion. Thus, even though that assistance is contained within the President's Defense Conversion Initiative and constitutes the largest share of the initiative, its desirability must be assessed on broader grounds.

Assistance to firms and other organizations to develop high-technology programs is part of the Clinton Administration's new technology policy--to increase and improve the contribution of federal research and development to the U.S. economy. An extensive discussion of the merits and problems of that policy is beyond the scope of this paper, but a brief review of the key points can be provided. Some analysts argue that the private sector, if left to its own devices, may tend to underinvest in research on new technology. The new technology policy could help offset this tendency. But the policy involves significant risks, including the problem of whether the government can pick

1. Department of Defense, Defense Conversion Commission, *Adjusting to the Drawdown* (December 1992), p. 20.

"winners" among research projects and the related difficulty of evaluating projects that are chosen to determine their efficacy.²

ASSISTING COMMUNITIES AFFECTED BY CUTBACKS

A second type of assistance for displaced defense workers involves assistance to communities where many such workers have lost their jobs. Funds provided for community assistance, redevelopment, and conversion planning represent only a minor fraction of the Administration's defense conversion program. Funding for the Community Diversification Assistance program will total \$278 million in the 1993-1997 period, including \$80 million to be transferred from the DoD budget in 1993. Funding for the direct activities of DoD's Office of Economic Adjustment is about \$30 million in 1993 and 1994; as mentioned earlier, DoD's economic conversion program after 1994 has not been set. If one assumes five-year funding of \$150 million for OEA, total community development funds would equal \$428 million, or only 2 percent of the total funding in the President's Defense Conversion Initiative.

Demands for community assistance are likely to remain strong during the next several years as defense cutbacks and base closures affect more communities. Since 1988, the Defense Base Closure and Realignment Commission has proposed, and the Congress has approved, closing 120 major defense facilities. In June 1993, the commission recommended that another 32 major defense installations be closed, and the President has forwarded this recommendation to the Congress. Yet another round of base closures is scheduled to occur in 1995.

It should be possible to provide assistance geographically in ways that focus the benefits on displaced defense workers. Funds can, of course, be targeted toward areas where military bases are closing. But communities experiencing problems related to loss of defense contracts can also be targeted. The Office of Technology Assessment has identified 271 of the nation's 3,137 counties as ones where defense prime-contract awards exceed the national average on a per capita basis.³ The Congress could require that funds for community assistance be spent only in those counties.

2. For further discussion, see Congressional Budget Office, "The Technology Reinvestment Project: Integrating Military and Civilian Industries," CBO Paper (July 1993).

3. Office of Technology Assessment, *After the Cold War: Living with Lower Defense Spending* (February 1992), p. 158.

Funding provided by OEA, however, is not likely to have a near-term impact on creating new local employment. OEA provides funds to communities to plan for the reuse of former defense facilities and installations, not to create new business. Economic Development Act assistance, however, has the potential to create new jobs, but the number is likely to be quite small compared with job losses in the defense sector. Moreover, the process of awarding EDA's assistance funds has been characterized by significant delays in the past; this problem could reduce its ability to offset local economic dislocation in the short run. The Office of Technology Assessment recently conducted a survey of communities that had applied for EDA assistance and found that five of the seven communities surveyed experienced delays of more than 18 months between the time of application to EDA and the receipt of funding.⁴ The President's program calls for EDA to speed up the awarding of grants to minimize the period of local economic dislocation.

DIRECT ASSISTANCE TO FORMER DEFENSE WORKERS

Providing assistance directly to former defense workers is the third component of the Administration's approach. The President's program seeks \$5.3 billion for personnel assistance during the 1993-1997 period, about 27 percent of the overall assistance package. These funds provide assistance for military personnel and civilians formerly released from federal government service as well as those workers laid off in the private sector.

In the short term, direct assistance may be the most effective means to meet the needs of those defense workers who have already lost their jobs. Direct assistance bolsters the efforts of unemployed workers to seek new jobs and qualify themselves for alternative types of work. The other approach--assistance to firms in reorienting their activities--is geared more toward helping defense workers keep the jobs they have.

Former defense workers in the private sector, however, are eligible for a relatively small portion of the package of direct assistance provided in 1993. Only \$150 million, or 27 percent of all direct assistance appropriated for 1993 in the national defense budget, was allocated to private-sector workers. The largest element of the package, \$236 million, financed early retirement benefits for active-duty military personnel who leave before completing the 20 years of service required for normal retirement, provided similar retirement programs for National Guard and Reserve personnel, extended

4. Ibid., pp. 174ff.

temporary health coverage to former DoD personnel, and funded separation pay and health coverage for DoD civilian employees who lose their positions. In 1994, the President has proposed to spend \$331 million for active-duty military personnel, \$50 million for Reserve personnel, \$100 million for DoD civilians, and \$300 million in Department of Labor funds for private-sector defense workers.

THE BEST SOLUTION TO DEFENSE CONVERSION

Even a defense conversion program as large as the one the President proposes, with spending of \$19.3 billion in the 1993-1997 period, cannot begin to compensate for the planned reductions in the defense budget. During those five years, national defense spending will be reduced below the 1993 level by a total of \$128 billion.⁵ The private economy will obviously have to create the jobs needed to absorb displaced defense workers.

In recent years, the recession and sluggish recovery have not produced the job growth required to absorb the losses in the defense sector without substantial periods of unemployment. But job growth would be adequate to absorb defense losses if the economy gradually returns to employment levels associated with full use of its economic capacity. CBO's long-term economic projections, which assume a gradual return to full capacity, estimate that the U.S. economy would experience a net gain of about 2 million jobs a year in 1993 through 1997. Under the Clinton Administration's budgetary proposals, the average annual loss in defense-related jobs would absorb only about 12 percent of this gain. If it occurs, therefore, such job growth would represent the best solution to defense conversion.

5. This compares the Clinton plan with a projection that maintains the 1993 level of funding, adjusted for anticipated inflation.

APPENDIXES

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APPENDIX A
THE EXPERIENCE OF
DISPLACED DEFENSE WORKERS
WITH TRAINING PROGRAMS

Funding to support training and readjustment programs to assist defense workers in finding new jobs is an important element of the Administration's economic conversion program. How have those programs helped defense workers who lost their jobs in recent years? A review of published findings revealed little information on defense workers' experiences. So the Congressional Budget Office (CBO) sought such information directly from the source.

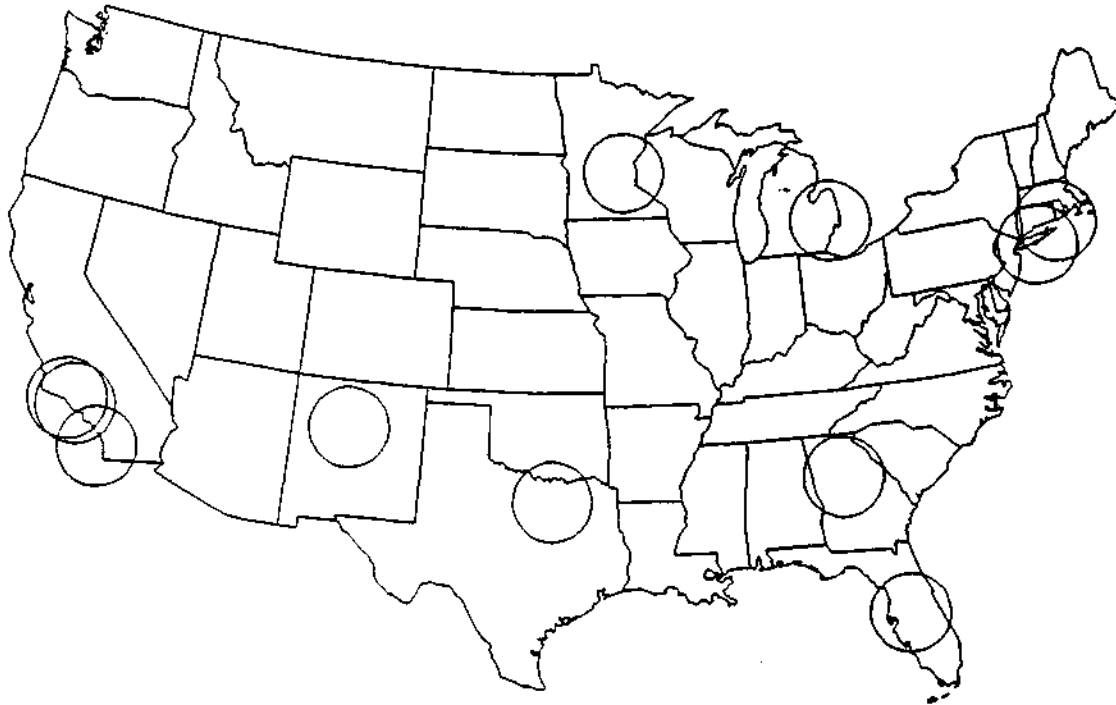
CBO identified Job Training Partnership Act (JTPA) centers that were primarily serving workers laid off from defense contractors through information received from the Department of Labor's Employment and Training Administration and from the contractors themselves. Center administrators and state JTPA coordinators were contacted and asked to answer a structured set of questions prepared by CBO. The questions included such basic information as the number of participants served, their ages, their former occupations, their wage on separation from work, whether they found new employment, and the services provided to them by the center.

Replies were received from local training centers in nine states reflecting the experiences of 13,110 former defense workers who made use of the centers' services (Figure A-1 identifies the states within which these centers were located). The oldest of these centers was established in 1988; the newest in 1992.

SERVICES PROVIDED TO WORKERS

The centers reported that they provided a variety of services to program participants (see Table A-1). Most provided basic readjustment services, including announcements of jobs opportunities, resume preparation, career counseling, and use of word processors, copiers, and other office equipment. A variety of formal training courses were provided either on-site or in association with local colleges and trade schools. Some centers offered services designed to mitigate the difficulties of unemployment, including stress management counseling, help in managing household budgets, and child care.

Figure A-1. Locations of Reporting Centers Serving Defense Workers



SOURCE: Congressional Budget Office.

TABLE A-1. EMPLOYMENT AND RELATED SERVICES PROVIDED TO DISPLACED DEFENSE WORKERS

<p>Basic Readjustment Career counseling Interview and networking skills Resume preparation and writing Job posting and vacancy announcements Financial planning Stress management counseling</p>	<p>Supportive Services Transportation Child care</p>
<p>Training Computerized skills assessment program Remedial/GED preparation Classroom training On-the-job training Courses in job search Techniques/career alternatives Seminars and workshops on entrepreneurship</p>	<p>Other Resources Use of library Private work areas Use of fax machine, telephones, copier, and word processor Free postage, paper, and envelopes</p>

SOURCE: Congressional Budget Office.

WHO PARTICIPATES IN THESE PROGRAMS?

The typical participant was a 40-year old male production worker (see Table A-2). Blue-collar and clerical workers were predominant among the centers' clientele. Managers and professionals made up only 19 percent of participants; other information suggests that they represented fully 35 percent of those laid off from major defense contractors (see Appendix B).

Among production workers, those in the lower wage grades also seem more likely to use the centers. Participants averaged \$13.37 an hour in their previous employment, significantly less than the \$15.83 earned by production workers employed by the major contractors but somewhat more than the average of \$12.87 for employees who were laid off (see Table A-2). Among salaried employees who came to the centers, their reported salary, which averaged \$32,052, was less than the \$37,037 average for those laid off from defense firms.

High school graduates predominated among center participants--93 percent had their high school diploma; of these, 50 percent had not attended college. Participants averaged 13.4 years of education (see Table A-2). This average is about one year greater than is true for the typical displaced worker. The 21 percent of the participants who were college graduates would be expected to have an easier time securing new jobs.

TABLE A-2. COMPARISON OF SELECTED CHARACTERISTICS OF PROGRAM PARTICIPANTS AND DISPLACED DEFENSE WORKERS

Characteristic	Program Participants	Workers Displaced from Major Defense Contractors
Demographic Characteristics		
Male (Percent)	74	n.a.
Average Age	40	40
Average Years of Education	13.4	13.5
Employment-Related Characteristics		
Percentage in Managerial/Professional Jobs	19	35
Percentage in Skilled Jobs	39	25
Percentage in Semi-Skilled Jobs	34	23
Average Hourly Wage	\$13.37	\$12.87
Average Salary	\$32,052	\$37,037

SOURCE: Congressional Budget Office.

NOTE: n.a. = not available.

APPENDIX B

EMPLOYMENT DECLINES AND JOB DISPLACEMENT

AMONG MAJOR DEFENSE CONTRACTORS

The Congressional Budget Office polled 19 of the largest prime contractors to the Department of Defense on their employment experience during the current defense drawdown. Firms that maintain separate divisions for defense and civilian work were asked to respond only for their defense divisions, if data permitted. Thirteen firms responded to CBO's request for information. Most responses were received in September 1992 and contained data through midyear. For this exercise, data for the 13 firms were combined to preserve the anonymity of the individual responses.

Respondents were asked to report their total employment levels for the years 1986 through mid-1992 and the number of persons permanently separated from employment over that period. In addition to the aggregate information on employment and layoffs, the firms were asked to supply data on the characteristics of both their current labor force and of those persons that they laid off in 1991. For their current labor force, firms were asked to supply information on the distribution among occupations and between hourly and salaried workers, the age distribution, the educational attainment of their work force, and the distribution of salaries (for salaried workers) and wages (for hourly workers). Those data allowed CBO to compare the characteristics of these defense employees with the work force at large. Identical information was collected for the employees who were laid off in 1991. As a result, CBO was able to assess whether certain groups of employees were more likely to be laid off than others.

BEGINNING IN 1990, DECLINES IN EMPLOYMENT ACCELERATED

Even though defense budgets began to decline in 1985, this factor had little effect on firms' employment until 1990. Overall employment for the 13 firms declined slightly in 1988 and 1989, being reduced by about 6,000 workers, or less than 1 percent of total employment, in each year (see Table B-1). The decline in employment accelerated to a 4 percent annual rate in 1990, 8 percent in 1991, and 9 percent in the first half of 1992 (an 18 percent annual rate).

TABLE B-1. JOB LOSSES AT THIRTEEN MAJOR DEFENSE CONTRACTORS

Year	Total Employment	Annual Reduction	Percent Reduction
1988	674,985	5,923	1
1989	668,670	6,315	1
1990	644,304	24,366	4
1991	590,345	53,959	8
1992 (six months)	537,173	53,172	9
Total ^a	n.a.	143,735	21

SOURCE: Congressional Budget Office.

NOTES: Survey was directed to 19 major prime contractors responsible for 35 percent of total DoD contract awards in 1991. Thirteen of the firms responded.

n.a. = not applicable.

a. Cumulative reduction from the 1987 level.

COMPOSITION OF THE WORK FORCE AND OF LAID-OFF WORKERS

The work force of these major corporations is weighted heavily toward the high end of the labor market. Professionals--mainly engineers and scientists--made up fully 35 percent of all employees, a much higher representation than their 12 percent share for U.S. manufacturing as a whole (see Table B-2). Of the 35 percent of the work force who were production workers, two-thirds were classed as skilled workers and only one-third as semi-skilled, reversing the proportions found in most manufacturing establishments.

Layoffs fell disproportionately on two groups of lower-level employees--semi-skilled workers and clerical workers (see Table B-2). Semi-skilled workers represented 22 percent of all employees laid off in 1991, although they were only 14 percent of the work force. Similarly, 13 percent of those laid off were clerical workers, though they accounted for only 9 percent of the work force. Managers, on the other hand, escaped relatively unscathed: though they make up 13 percent of the employee pool, they represented only 5 percent of those put out the door.

This same pattern is evident if one examines the frequency of layoffs for different pay levels. Among salaried defense employees, those making less than \$40,000 a year experienced layoffs with greater frequency than their share of the work force, while those above the \$40,000 threshold were less frequently among the casualties (see Table B-3). For hourly workers as well, those making less than \$12.50 an hour made up 51 percent of all those laid off, while representing only 15 percent of the overall work force. This result may well be attributable to union contract requirements that the least senior employees within skill or task groups, who would tend to be the lowest paid, be laid off first.

TABLE B-2. OCCUPATIONAL DISTRIBUTIONS OF DEFENSE WORKERS

Occupation	Current Defense Workers		All Manu- facturing Workers		Laid-Off Defense Workers	
	Number (Thousands)	Percent	Number (Thousands)	Percent	Number (Thousands)	Percent
Managers	67.8	13	2,263	11	6.7	5
Professionals	176.6	35	2,404	12	39.7	30
Skilled Workers	105.6	21	3,767	19	30.0	23
Semi-Skilled Workers	70.0	14	8,057	40	29.3	22
Clerical Workers	45.2	9	2,209	11	16.6	13
Others	43.3	8	1,228	6	10.1	8
Total	508.5	100	19,928	100	132.5	100

SOURCES: Congressional Budget Office (for defense workers); Bureau of Labor Statistics, *Employment and Earnings* (March 1993) (for all manufacturing workers).

NOTE: Figures for defense workers are based on responses from 13 major defense contractors.

TABLE B-3. DEFENSE LAYOFFS BY SALARY LEVEL FOR SELECTED MAJOR CONTRACTORS

Salary Level	Percentage	
	Portion of Total Employment	Portion of Total Layoffs
Salaried Employees		
Less Than \$15,000	0.5	1.7
\$15,000 to \$19,999	3.1	6.3
\$20,000 to \$24,999	6.7	11.3
\$25,000 to \$29,999	8.7	14.9
\$30,000 to \$39,999	24.7	34.1
\$40,000 to \$59,999	38.2	25.2
More Than \$60,000	18.1	6.4
Hourly Workers		
\$4.25 to \$7.49	1.1	4.0
\$7.50 to \$9.99	4.5	19.7
\$10.00 to \$12.49	9.0	27.2
\$12.50 to \$14.99	31.1	22.8
\$15.00 to \$19.99	47.2	25.8
\$20.00 or More	7.1	0.6

SOURCE: Congressional Budget Office.

APPENDIX C
THE MASS LAYOFF STATISTICS
PROGRAM OF THE BUREAU
OF LABOR STATISTICS

The Mass Layoff Statistics (MLS) program was developed in response to section 462(e) of the Job Training Partnership Act of 1982 (P.L. 97-300), which provides that the Secretary of Labor develop and maintain statistical data relating to permanent mass layoffs and plant closings and issue an annual report on the topic.¹ The report was to include, at a minimum, the number of plant closings and mass layoffs, the number of workers affected, and a breakdown by geographic area and industry.

The program was begun in 1984, with eight states funded for developmental work. In 1992, 49 states, plus the District of Columbia, participated in the program. California was the only state that did not participate. The then Secretary of Labor terminated the program in the winter of 1992.

METHODS

The MLS program was a cooperative endeavor of the Bureau of Labor Statistics (BLS) and the state employment security agencies, using a standardized, automated approach to identify, describe, and track the impact of major job cutbacks. Through their unemployment insurance (UI) system data bases, state agencies identified establishments that had at least 50 initial UI claims filed against them during a consecutive three-week period. The three weeks allowed for one week of early filing (people visiting the UI office in the week in which the layoff occurs), the initial week of the layoff, and one additional week for those who delayed filing.

The establishments identified were contacted by telephone to determine the total number of people separated, the reasons for these separations, whether these separations were permanent or temporary, and whether or not the establishment remained open. The data from both sources--UI files and employers--were submitted quarterly to BLS, where validation, summarization, analysis, and publication take place.

1. This appendix was originally prepared by the staff of the Mass Layoff Statistics program. It has been adapted and updated by the Congressional Budget Office to reflect the program's current status.

Data on individual claimants and establishments are considered confidential; state UI data are covered by the confidentiality laws of individual states, while the data collected through telephone contacts are protected by the BLS confidentiality provisions.

DATA AVAILABLE

The MLS program provides detailed information on employment cutbacks and the resulting unemployment at the state and area level, including the location and industry of the firm experiencing the layoff, the reason for the layoff, the number of initial claimants for UI benefits, and the total number of people separated (see Tables C-1 and C-2).

In addition, socioeconomic characteristics on UI claimants--such as sex, age, race, ethnicity, and residency--are available. These characteristics are collected at two points in time--when an initial claim is filed and when the claimant exhausts regular UI benefits (see Figures C-1 and C-2). In between these points, the unemployment status of claimants is tracked through the monitoring of certifications for unemployment (continued claims) filed under regular state UI programs.

TABLE C-1. MASS LAYOFFS AMONG DEFENSE PRODUCERS

Year: Quarter	Number of States Represented ^a	Number of Events	Number of Workers Separated	Number of Initial Claimants
1990:				
I	46	38	10,595	7,715
II	46	32	4,076	4,325
III	45	47	9,982	9,527
IV	45	46	7,625	8,705
1991:				
I	49	62	20,896	17,840
II	49	60	10,411	11,877
III	49	41	7,591	8,193
IV	49	57	10,661	9,670
1992:				
I	49	78	13,983	13,940
II	47	72	15,130	16,232

SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program, special tabulations for the Congressional Budget Office.

NOTE: Defense producers are defined as either firms that identified themselves as defense producers or firms in six defense-intensive industries.

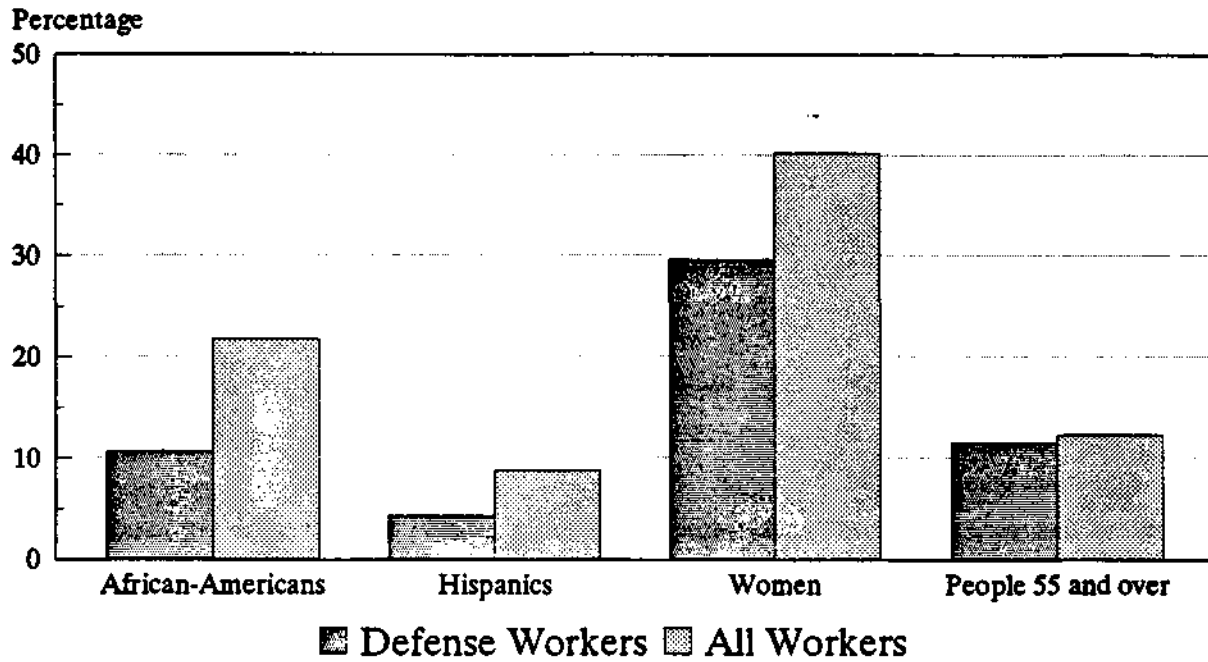
a. Data for California are unavailable throughout the period. Indiana, Maryland, Michigan, and Ohio joined the program in 1991. Oregon joined in 1992. Recent data were not available for Ohio, Alaska, and Michigan.

TABLE C-2. REASONS FOR SEPARATION FROM EMPLOYMENT

Reason	All Separations		Defense-Related Separations		
	Number	Percentage of Total	Number	Percentage of Total	Percentage of Category
Contract Cancellation	40,770	2.2	19,882	17.8	48.8
Contract Completion	122,453	6.7	10,000	8.9	8.2
Seasonal Work	566,879	30.8	869	0.8	0.2
Slack Work	453,196	24.6	42,792	38.2	9.4
Relocation or Reorganization	210,203	11.4	4,231	3.8	2.0
Other Specified Reasons	343,961	18.7	20,273	18.1	5.9
Reason Not Specified	103,355	5.6	13,947	12.5	13.5
Total	1,840,817	100.0	111,994	100.0	6.1

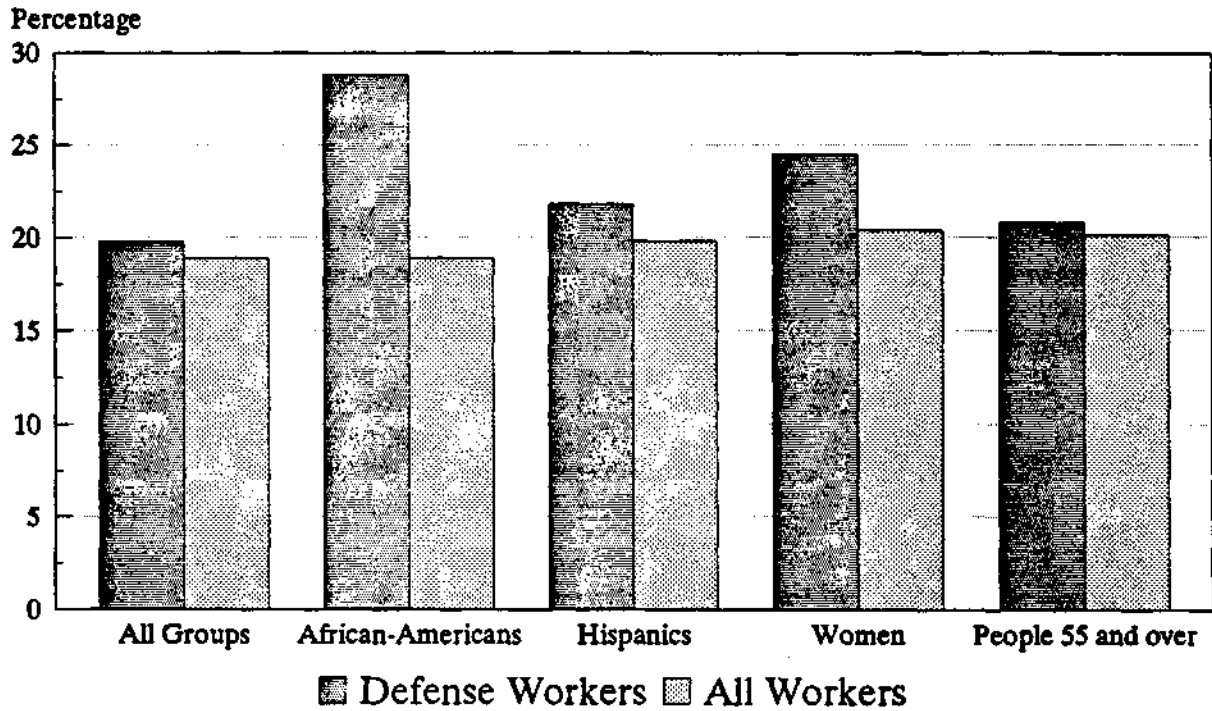
SOURCE: Congressional Budget Office based on data from the Bureau of Labor Statistics, Mass Layoff Statistics program, special tabulations, November 1992.

Figure C-1. Representation of Various Groups Among Workers Subject to Mass Layoff



SOURCE: Congressional Budget Office based on data from the Bureau of Labor Statistics, Mass Layoff Statistics program.

Figure C-2. Likelihood of Exhausting Benefits



SOURCE: Congressional Budget Office based on data from the Bureau of Labor Statistics, Mass Layoff Statistics program.