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The Worker Profiling and Reemployment Services System: Legislation, Implementation Process and Research Findings

Unemployment Insurance
Occasional Paper 94-4

U.S. Department of Labor
Robert B. Reich, Secretary
Employment and Training Administration
Doug Ross, Assistant Secretary
Unemployment Insurance Service
Mary Ann Wyrsch, Director

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This report was prepared by the Office of Legislation and Actuarial Services, Unemployment Insurance Service, under the direction of Stephen A. Wandner. Rosalind Y. Thomas assembled and coordinated the publication for manuscript. This paper contains: Federal legislative language on profiling; a variety of public releases by the U.S. Department of Labor to interpret the legislation, support and provide technical assistance to the States in their implementation of the legislative provisions; and research relating to worker profiling and the provision of reemployment services.

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TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Introduction</td>
<td>3</td>
</tr>
<tr>
<td>II. Profiling Legislation</td>
<td></td>
</tr>
<tr>
<td>A) Public Law 103-6, Section 4, Profiling of New Claimants</td>
<td>15</td>
</tr>
<tr>
<td>B) Public Law 103-152, Section 4, Worker Profiling</td>
<td>16</td>
</tr>
<tr>
<td>III. Legislative Interpretation</td>
<td></td>
</tr>
<tr>
<td>A) The Unemployment Compensation Amendments of 1993</td>
<td>22</td>
</tr>
<tr>
<td>(Public Law 103-152) - Provisions Affecting the Federal-State</td>
<td></td>
</tr>
<tr>
<td>Unemployment Compensation Program. Unemployment Insurance Program</td>
<td></td>
</tr>
<tr>
<td>B) Draft Language - Failure to Participate in Reemployment Services.</td>
<td>32</td>
</tr>
<tr>
<td>Unemployment Insurance Program Letter 13-94 Change 1, April 15,</td>
<td></td>
</tr>
<tr>
<td>1994.</td>
<td></td>
</tr>
<tr>
<td>C) Unemployment Insurance Program Requirements for the Worker</td>
<td>35</td>
</tr>
<tr>
<td>Profiling and Reemployment Services System. Unemployment</td>
<td></td>
</tr>
<tr>
<td>IV. Implementation of a Worker Profiling and Reemployment Service</td>
<td></td>
</tr>
<tr>
<td>System</td>
<td></td>
</tr>
<tr>
<td>A) Profiling of Unemployment Insurance (UI) Claimants,</td>
<td>51</td>
</tr>
<tr>
<td>B) Implementation of a System of Profiling Unemployment Insurance</td>
<td></td>
</tr>
<tr>
<td>(UI) Claimants and Providing Them with Reemployment Services.</td>
<td>57</td>
</tr>
<tr>
<td>C) Supplement No. 1 -- Questions and Answers</td>
<td>104</td>
</tr>
<tr>
<td>Supplementing Field Memorandum No. 35-94, Implementation of a</td>
<td></td>
</tr>
<tr>
<td>System of Profiling Unemployment Insurance (UI) Claimants and</td>
<td></td>
</tr>
<tr>
<td>Providing Reemployment Services. Field Memorandum No. 35-94,</td>
<td></td>
</tr>
<tr>
<td>Change 1, May 2, 1994.</td>
<td></td>
</tr>
<tr>
<td>D) Supplement No. 2 -- Questions and Answers</td>
<td>110</td>
</tr>
<tr>
<td>Supplementing Field Memorandum No. 35-94, Implementation of a</td>
<td></td>
</tr>
<tr>
<td>System of Profiling Unemployment Insurance (UI) Claimants and</td>
<td></td>
</tr>
<tr>
<td>Providing Reemployment Services. Field Memorandum No. 35-94</td>
<td></td>
</tr>
<tr>
<td>Change 2.</td>
<td></td>
</tr>
</tbody>
</table>
V Profiling Mechanisms


VI Research on Profiling and Reemployment Services

WORKER PROFILING AND RE-EMPLOYMENT SERVICES SYSTEM

I. Overview

A Worker Profiling and Reemployment Services System (WP/RS) is an early intervention approach for providing dislocated workers with reemployment services to help speed their return to productive employment. It consists of two components: a profiling mechanism and a set of reemployment services.

"Profiling" is based on a set of criteria—a profile—that can be used to identify unemployment insurance (UI) claimants who are likely to exhaust their UI benefits and will need re-employment services to make the transition to new employment. Profiling will select those UI claimants who are likely to be dislocated workers out of the broad population of UI claimants, and refer them to re-employment services early in their unemployment spell. Over the next several years, the result will be to select about two million dislocated workers from eight to nine million UI initial claimants.

Referred claimants will be provided with a set of reemployment services that is customized to their individual needs. Follow-up information on referred claimants will be collected from service providers through a feedback mechanism from the service provider to the UI program.

Throughout its history, the UI program has reflected the economic reality of unemployment, which is primarily caused by variations in the business cycle. Experienced unemployed workers receive UI benefits and are required to search for work until they can return to jobs similar to those they previously had.

Economic conditions, however, have changed substantially. Global competition and rapidly-evolving technologies have resulted in the dislocation of millions of workers from their jobs. The new reality is that the large portion of those who lose their jobs never get them back.

The vast majority of dislocated workers are already served by the UI program. While most of these workers need the temporary income provided by UI benefits, they also need reemployment services to assist them in making the transition to new jobs. Unfortunately, many dislocated workers understandably want to believe that the factory will reopen or that the company will soon start hiring again—regardless of reality—and thus delay their search for new employment. The work profiling mechanism assures that dislocated workers are identified and referred to reemployment services when they first become unemployed. It is the service providers who teach the job search skills that these workers need to speed their return to productive employment.
II. Research Results

Results from the New Jersey UI Reemployment Demonstration Project States showed that the combination of early identification of dislocated workers plus intensive job search assistance can be effective in speeding the reemployment of dislocated workers if participation is required. This combination also resulted in substantial cost savings to the Federal Government, as compared to a control group. Several pilot projects conducted in other States have shown similar positive results.

The results of this research have been recently summarized in a paper written by staff of the U.S. Department of Labor's Office of the Chief Economist, released as UIS Information Bulletin 12-94. This paper is reproduced in its entirety in this publication.

An evaluation of the results of the UI demonstration projects has been conducted by Bruce Meyer of Northwestern University in his article, "Lessons Learned from the U.S. Unemployment Insurance Experiments," forthcoming in the Journal of Economic Literature. Professor Meyer's major conclusions regarding job search assistance derive from his analysis of six experiments: the Nevada Claimant Placement Program, the Charleston Claimant Placement and Work Test Demonstration, the New Jersey UI Reemployment Demonstration, the Nevada Claimant Employment Program, Washington Alternative Work Search Experiment and the Wisconsin Eligibility Review Pilot Project:

...the jobs search experiments show that various combinations of... additional job finding services can reduce UI receipt and unemployment in a cost effective way. Nearly all of the combinations tried by the five experiments reduce UI receipt, and reductions in UI receipt are often statistically significant. The more intensive treatments tend to have bigger effects... Nearly all of the treatments have benefits that exceed cost for the UI system...

On the services side we should consider making job search assistance universal. The exact combination of services we should include is not completely clear, but job search workshops and individual attention by... [employment service] personnel seem promising.

Ralph E. Smith and Murray N. Ross have analyzed the issue of dislocated workers in their study, Displaced Workers: Trends in the 1980's and the Implications for the Future, (Washington, D.C.: Congressional Budget Office, February 1993). They summarize their findings about the effectiveness of job search assistance for dislocated workers as follows:

Among the options that have been discussed for helping displaced workers... would be to tie eligibility for additional UI benefits to participation in some activity
such as a job club or other program that helps participants find jobs faster. There is strong evidence that such assistance is effective in shortening the length of time that participants receive UI benefits...

...Evaluations of earlier demonstration projects for displaced workers in specific sites provide considerable basis for optimism about the effectiveness of job search assistance...

For example, an experiment conducted in 1984 and 1985 evaluated the cost and results of a combination of job search assistance and retraining in Texas. The principal investigator concluded that the experiment "demonstrated that a relatively inexpensive mix of job-search assistance and limited occupation skills training can be a cost-effective means of assisting some displaced workers..." [Harold S. Bloom, Back to Work: Testing Reemployment Services for Displaced Workers (Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, 1990), p.vii.]

These findings are supported by a recent survey of a large number of previous evaluations in the United States and elsewhere. The author concluded that the evidence to date strongly supports programs that provide job search assistance to displaced workers, but the findings regarding retraining programs were "not conclusive." [Duane E. Leigh, Does Training Work for Dislocated Workers? (Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, 1990), p. 108] For example, four separate demonstration projects (including the Texas study) found that job search assistance increased the short-term earnings of participants and reduced their UI benefits...

II. Legislation

The Clinton Administration sponsored two pieces of legislation to implement worker profiling last year. The first, Public Law (P.L.) 103-6, Section 4, "Profiling of New Claimants," enacted on March 4, 1993, called for the Secretary of Labor to establish a worker profiling program. State participation was voluntary, but States were encouraged to participate in the program, and funding for the development of the program in each State was authorized. The Fiscal Year (FY) 1994 Federal budget includes $9 million to establish this program. Another $9 million has been requested by the Administration in its FY 1995 budget request.

P.L. 103-6 has been superseded by Section 4, "Worker Profiling," of P.L. 103-152, enacted on November 24, 1993. The most recent law amended the Social Security Act by adding a new subsection 303(j), which requires the State Agency charged with administration of State unemployment compensation law to establish and utilize a system of profiling all new claimants for regular compensation.
The worker profiling system is defined in new Section 303(j)(1) of the Social Security Act (SSA) -- enacted by P.L. 103-152 -- as a system that:

(A) identifies which claimants are likely to exhaust regular compensation and will need job search assistance services to make a successful transition to new employment;

(B) refers such claimants to re-employment services, such as job search assistance services available under any State or Federal law;

(C) collects follow-up information relating to the services received by such claimants and the employment outcomes of such claimants subsequent to receiving such services and utilizes this information in making identifications pursuant to (A) above; and

(D) meets such other requirements as the Secretary of Labor determines are appropriate.

P.L. 103-152 also added Section 303(a)(10) to the SSA. It requires that claimants referred to re-employment services participate in those services or similar services as a condition of eligibility for UI unless the claimant has already completed services or has "justifiable cause" for failure to participate. The Department explained in Unemployment Insurance Program Letter (UIPL) 13-94, Change 1, that each:

...State law is required to provide not only that eligibility for regular UC is conditioned on a claimant's participation in reemployment services, but also that such condition is treated as met if the claimant has completed such services, or there is justifiable cause for the claimant's nonparticipation.

Regarding "justifiable cause," the UIPL continues that it "does not supersede State able and available requirements, but rather is an additional eligibility requirement related to participation in reemployment services."

The first Conference Report for P.L. 103-152 defined reemployment services:

Reemployment services will include job search assistance and job placement services, such as counseling, testing, and providing occupational and labor market information, assessment, job search workshops, job clubs and referrals to employers, and other similar services.

A new Unemployment Insurance Program Letter, "Unemployment Insurance Program Requirements for the Worker Profiling Services
System," UIPL 41-94, presents the UI program requirements under the profiling amendments to Section 303 of the Social Security Act.

The UIPL presents a wide variety of program requirements which are outlined and, in a few cases, quoted below:

- Agreements with service providers: about the number of claimants referred and information that must be provided to the UI agency

- Definition of "Reemployment Services"

  "...definition of reemployment services does not include skills and education training."

- Benefits rights interview

- Identifying claimants likely to exhaust and in need of reemployment services
  - Who is to be profiled
  - Who is to be identified

  ...minimum requirement: A State profiling system must identify all new claimants for regular UI who are permanently laid off... From the claimants so identified, the State must further identify at least one of the following: ...those claimants who are either unlikely to return to their previous industry or... previous occupation.

  Claimants identified under the minimum required profiling system... will also be "eligible dislocated workers" under Section 303(a)(1)(A) of Title III, JTPA. [EDWAA]

  - How claimants are to be identified

  ...under the minimum required profiling system, States must use first payment, recall status, hiring halls (if they are used in the State), and either industry or occupation to identify claimants for purposes of referral to reemployment services.

- The selection pool

- Notification of referrals to reemployment services

- Adjudication of issues associated with profiling and reemployment services
- Participation requirement
- Similar services
- Exceptions to the participation requirement

"...States must apply the 'reasonable person' test in determining if justifiable cause exists for the failure to participate."

- Relation of the participation requirement to other State eligibility requirements
- Appeals rights

IV. Worker Profiling and Reemployment Services System

Based on P.L. 103-152, the Department describes its recommended approach for designing and implementing a Worker Profiling and Reemployment System (WP/RS) in Field Memorandum (FM) 35-94. Among other issues, it discusses the purpose of a WP/RS; how the profiling mechanism works; and recommendations by the U.S. Department of Labor for the provision of reemployment services, particularly job search assistance.

A. Purpose

The Department recognizes that there cannot be a "Worker Profiling System" by itself. Profiling alone does not help the customer--the dislocated UI claimant. Rather, there can only be a "Worker Profiling and Reemployment Services System."

The goal of a Worker Profiling and Reemployment Services System is to assist the customer by:

* Identifying claimants who are likely to exhaust their benefits and need reemployment services early in their unemployment spell;

* Linking them with reemployment services appropriate to their individual needs; and

* Ultimately, getting results for the customer--getting dislocated claimants reemployed faster and into better jobs than they would have without assistance.

B. How Profiling Works

FM 35-94 describes the profiling mechanism in great detail. It recommends that States use seven factors in developing their own worker profiling mechanisms. These factors were tested in the development of a worker profiling "National Model" -- a model developed using national data. They were also tested in the
development and implementation of a Test State WP/RS in the State of Maryland. The recommended variables are:

(1) Recall Status  
(2) Union Hiring Hall Agreement  
(3) Education  
(4) Job Tenure  
(5) Change in Employment in Previous Industry  
(6) Change in Employment in Previous Occupation  
(7) Local Unemployment Rate

These variables and their three potential sources are discussed. The three sources are: 1) the UI system during initial claims filing; 2) the Employment Service during work registration process; and 3) the labor market information system. Of these variables, the UI program requirements UIPL mandates the use of recall status and union hiring hall -- if there is an agreement that a union hiring hall will be the exclusive source of job search -- along with receipt of a first payment; and either the industry or occupational variable is also mandated.

The FM reviews two approaches to developing State worker profiling mechanism: statistical models and characteristic screening. It recommends that States use the statistic model approach.

The FM discusses the relation of the WP/RS initiative to the EDWAA program, particularly EDWAA eligibility criteria. One criterion for EDWAA eligibility is that workers be permanently separated from their former employer and are not likely to return to their previous occupation or industry. EDWAA has determined that the worker profiling mechanism is a good indicator that this criterion is met. As a result, the EDWAA program has determined that workers who are identified, selected and referred to reemployment services will be eligible for EDWAA services.

C. Reemployment Services

The organizational components of the Employment and Training Administration (ETA) worked together for several months this year to develop a systematic and structured set of reemployment services that would provide customized assistance to dislocated workers. The concern of ETA staff was to serve the individual customer and to avoid an approach that would be "one size fits all." The recommended reemployment service delivery system that was produced by this group is summarized in Appendix E of FM 35-94.

Reemployment services can be provided by a number of different types of service providers under the WP/RS initiative, but the most likely providers are the Employment Service and the EDWAA
system. Designation of the service provider in each State is determined by the Governor.

IV. Providing Technical Assistance

A. Development of a Model Based on National Data

In fulfilling its role of providing technical assistance to the States under the authorizing legislation for worker profiling, the Department first developed a model that successfully identifies UI claimants who are likely to exhaust their UI benefits and need reemployment services on a national basis. This model was developed for the Department by an outside researcher. It is presented in UIS Information Bulletin 4-94.

This model is relatively simple, yet provides a more comprehensive look at the individual's needs compared to earlier profiling attempts. This results in a measurable improvement in the accuracy of targeting services to those individuals most in need of assistance. This profiling model uses the seven criteria listed above that have been tested and selected for their ability to identify individuals who are likely to exhaust their UI benefits. This model also allows States to easily adjust the size of the population that is selected for referral to reemployment services. Finally, this model can be customized by each State based on data from that particular state.

This profiling model uses a two-step approach. The first step in this model is characteristic screens that exclude those claimants who are not permanently separated. The second step in the two-step profiling model is to assess the likelihood of benefit exhaustion of the remaining workers, based on a statistical model that combines several characteristics.

The end result of the second part of this profiling model is a predicted probability of benefit exhaustion for each claimant. This predicted probability of exhaustion is a number between "0" and "1", which indicates how likely a particular worker is to have an unemployment spell of six months or more, that is, their probability of exhausting UI benefits. For example, a probability score of ".50" means that the worker has a 50-percent probability of having a jobless spell that lasts six months or more.

This profiling model produces a list of individuals ranked, from highest to lowest, based on their probability of exhausting UI benefits. Claimants on this list can be referred to reemployment services, beginning with those individuals who have the highest probability of benefit exhaustion and working down the list until resources available for services have been exhausted. Thus, this model provides flexibility in setting the size of the targeted
population based on the resources that are available for delivering reemployment services.

This profiling model is not meant to be standardized for all States or to be constant over time. Rather, it is subject to modification by individual States to meet their particular needs. The coefficients used in this profiling model should optimally be re-estimated, based on State (and possibly sub-state) historic data for each variable, in order to derive State-specific coefficients for the model. Additional variables can be added to the model, in order to pick up factors specific to the State. The definitions of the variables can be altered, if necessary, to reflect particular circumstances that are unique to the State.

B. State Specific Profiling and Reemployment Service Systems

The Department is committed to providing technical assistance to the States as they develop their own customized WP/RS. The Department has been proceeding by providing this technical assistance in three phases. In the first phase the Department has worked with Maryland as a Test State to develop a state-specific profiling mechanism and to implement and test that mechanism. The results of this work is summarized in UIS Information Bulletins 11-94 and 15-94. The first paper provides the details of the state-specific statistical profiling model developed with Maryland staff. This model confirms the approach taken in the "National Model", using similar specifications and the same seven variables.

The second paper provides the detailed specifications for the Maryland profiling mechanism. These specifications were provided to Maryland data processing staff in early May. They were implemented and tested successfully by the end of May. This paper describes in detail how the profiling model and the operational specification for the profiling program were installed on the Maryland mainframe computer and tested. Maryland implemented this system statewide during the week of July 5th.

The second phase in the technical assistance process is to implement a WP/RS in five Prototype States -- Delaware, Florida, Kentucky, New Jersey and Oregon. The purpose of this process is to implement WP/RS in several States such that the Department and the States can share information about implementation issues. These prototype states will also produce alternative approaches that can be used by the remaining States when they implement their WP/RS in the third phase of implementation.

The Department is also providing tools to the States to make the entire Worker Profiling and Reemployment Services program more efficient and productive. One form of assistance will be the provision of the labor market information needed for worker
profiling centrally from the Bureau of Labor Statistics (BLS). Beginning this fall on a quarterly basis, BLS will supply the Employment and Training Administration (ETA) with three data elements for each State on a diskette. In turn, ETA will, transmit these disks to the individual States. The data will consist of: 1) industry change data at a one-digit Standard Industrial Classification level, by quarter, at a sub-State level of aggregation; 2) occupational change data, by year, at a State level; and 3) total unemployment rates, as a four-quarter moving average, at the sub-State level.

VI. The Profiling and Re-employment Services Process: A Summary

The Department envisions that Worker Profiling and Re-employment Services Systems will operate in the following manner (refer to the flow chart at the end of FM 35-94):

- An individual files a new claim for unemployment benefits at a UI local office or through rapid response. Data elements needed for profiling (e.g., level of education) are collected from claimants through the initial claim and/or work registration process, and entered into a computer database that will be used to profile claimants. Labor Market Information (LMI) data (e.g., employment change by industry) necessary for profiling are also entered in the computer database.

- The first UI payment triggers the profile. First, claimants who are on recall or are covered by a union hiring hall agreement are excluded. Then, the remaining claimants are assigned a probability of long-term unemployment through a statistical model.

- A list of claimants who are potentially eligible for referral to service providers, is then created by the State’s computer system at a local office level. Claimants are ranked, highest to lowest, in order of their probability of exhausting benefits.

- The UI agency and service provider jointly determine the number of profiled UI claimants to be selected and referred. This referral agreement involves a coordinated and ongoing interaction between UI and the service provider to match the local supply of reemployment services with the local demand for services by referred UI claimants. This referral
agreement establishes the number of claimants that should be referred and who can actually be provided reemployment services.

- The UI agency notifies selected claimants that they have been identified as likely dislocated workers and will be referred to reemployment services, why the reemployment services are being offered, and when and where to report. Referred claimants will also be informed that continuing eligibility for unemployment benefits is contingent upon their participation in reemployment services.

- Based on notification by the UI agency, selected claimants report to the designated service provider. Also, the service provider receives notification by the UI agency that the claimant has been referred.

- The service provider conducts an orientation for referred claimants and notifies the UI agency that the claimant was or was not present, and whether the claimant was appropriately referred.

- The service provider conducts an assessment and, in consultation with the claimant, develops an individual Service Plan. The Service Plan is a compact between the claimant and the service provider that specifies a customized set of reemployment services for which participation is required.

- The claimant participates in reemployment services based upon the Service Plan and continues to submit weekly certifications to UI attesting to her/his continued participation for receipt of benefits.

- The service provider notifies the UI agency upon claimant completion or termination of participation in reemployment services based upon the Service Plan.

- Upon completion or termination of a Service Plan for any circumstances, the service provider furnishes the UI agency with the Service Plan record, which contains follow-up information relating to the services received
PUBLIC LAW 103 - 6-MAR. 4, 1993

Section 4, Worker Profiling
SEC. 4. PROFILING OF NEW CLAIMANTS.

(a) General Rule.—The Secretary of Labor shall establish a program for encouraging the adoption and implementation by all States of a system of profiling all new claimants for regular unemployment compensation (including new claimants under each State unemployment compensation law which is approved under the Federal Unemployment Tax Act (26 U.S.C. 3301-3311) and new claimants under Federal unemployment benefit and allowance programs administered by the State under agreements with the Secretary of Labor), to determine which claimants may be likely to exhaust regular unemployment compensation and may need reemployment assistance services to make a successful transition to new employment.

(b) Technical Assistance to States.—The Secretary of Labor shall provide technical assistance and advice to the States in the development of model profiling systems and the procedures for such systems. Such technical assistance and advice shall be provided by the utilization of such resources as the Secretary deems appropriate, and the procedures for such profiling systems shall include the effective utilization of automated data processing.

(c) Funding of Activities.—For purposes of encouraging the development and establishment of model profiling systems in the States, the Secretary of Labor shall provide to each State, from funds available for this purpose, such funds as may be determined by the Secretary to be necessary.

(d) Report to Congress.—Within 30 months after the date of the enactment of this Act, the Secretary of Labor shall report to the Congress on the operation and effectiveness of the profiling systems adopted by the States, and the Secretary’s recommendation for continuation of the systems and any appropriate legislation.

(e) State.—For purposes of this section, the term “State” has the meaning given such term by section 3308(j)(1) of the Internal Revenue Code of 1986.

(f) Effective Date.—The provisions of this section shall take effect on the date of the enactment of this Act.

SEC. 5. FINANCING PROVISIONS.

(a) Authorization.—There are authorized to be appropriated for nonrepayable advances to the account for “Advances to the Unemployment Trust Fund and Other Funds” in Department of Labor Appropriations Acts (for transfer to the “extended unemployment compensation account” established by section 905 of the Social Security Act) such sums as may be necessary to make payments to the States to carry out the purposes of the amendments made by section 2 of this Act.

(b) Use of Advance Account Funds.—The funds appropriated to the account for “Advances to the Unemployment Trust Fund and Other Funds” in the Department of Labor Appropriation Act for Fiscal Year 1993 (Public Law 102–394) are authorized to be used to make payments to the States to carry out the purposes of the amendments made by section 2 of this Act.

SEC. 6. EMERGENCY DESIGNATION.

Pursuant to sections 251(b)(2)(D)(i) and 252(e) of the Balanced Budget and Emergency Deficit Control Act of 1985, the Congress hereby designates all direct spending amounts provided by this Act (for all fiscal years) and all appropriations authorized by this
To extend the emergency unemployment compensation program, to establish a
system of worker profiling, and for other purposes.

Be it enacted by the Senate and House of Representatives of
the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.
This Act may be cited as the “Unemployment Compensation
Amendments of 1993”.

SEC. 2. EXTENSION OF EMERGENCY UNEMPLOYMENT COMPENSA-
TION PROGRAM.

(a) GENERAL RULE.—Sections 102(f)(1) and 106(a)(2) of the
Emergency Unemployment Compensation Act of 1991 (Public Law
102-164, as amended) are each amended by striking “October 2,
1993” and inserting “February 5, 1994”.

(b) WEEKS OF BENEFITS AVAILABLE DURING EXTENSION.—
(1) Subparagraph (A) of section 102(b)(2) of such Act is
amended—
(A) by redesignating clause (vi) as clause (vii),
(B) by inserting after clause (v) the following new
clause:
“(vi) REDUCTION OF WEEKS AFTER OCTOBER 2,
1993.—In the case of weeks beginning after October
2, 1993—
“(I) clause (i) of this subparagraph shall be
applied by substituting ‘33’ for ‘33’ and by
substituting ‘7’ for ‘26’,
“(II) clauses (ii), (iii), (iv), and (v) of this
subparagraph shall not apply, and
“(III) subparagraph A of paragraph (1) shall
be applied by substituting ‘50 percent’ for ‘130
percent’.”;
(C) by striking “or (iv)” in clause (vii) (as redesignated
by subparagraph (A)) and inserting “(iv), or (vi)”.;
(2) Subparagraph (B) of section 102(b)(2) of such Act is
amended by striking “and (iv)” and inserting “(iv) and (vi)”.;
(c) MODIFICATION OF FINAL PHASE-OUT.—Paragraph (2) of sec-
tion 102(f) of such Act is amended—
(1) by striking “October 2, 1993” and inserting “February
5, 1994”, and
(2) by striking “January 15, 1994” and inserting “April
30, 1994”;
(d) CONFORMING AMENDMENTS.—Section 101(e) of such Act is
amended—
(1) by striking “October 2, 1993” each place it appears in paragraph (1) and inserting “February 5, 1994”, and
(2) by striking “(and is not triggered off under paragraph (1))” in paragraph (2) and inserting “after February 5, 1994.”.

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to weeks of unemployment beginning after October 2, 1993.

SEC. 3. MODIFICATION TO ELIGIBILITY REQUIREMENTS FOR EMERGENCY UNEMPLOYMENT COMPENSATION.

(a) REPEAL OF DISREGARD OF RIGHTS TO REGULAR COMPENSATION.—Subsection (f) of section 101 of the Emergency Unemployment Compensation Act of 1991 (Public Law 102–164, as amended) is hereby repealed.

(b) EFFECTIVE DATE.—The repeal made by subsection (a) shall apply to weeks of unemployment beginning after the date of the enactment of this Act; except that such repeal shall not apply in determining eligibility for emergency unemployment compensation from an account established before October 2, 1993.

SEC. 4. WORKER PROFILING.

(a) IN GENERAL.—

(1) ESTABLISHMENT OF PROFILING SYSTEM.—Section 303 of the Social Security Act is amended by adding at the end thereof the following new subsection:

“(j)(1) The State agency charged with the administration of the State law shall establish and utilize a system of profiling all new claimants for regular compensation that—

“(A) identifies which claimants will be likely to exhaust regular compensation and will need job search assistance services to make a successful transition to new employment;

“(B) refers claimants identified pursuant to subparagraph (A) to reemployment services, such as job search assistance services, available under any State or Federal law;

“(C) collects follow-up information relating to the services received by such claimants and the employment outcomes for such claimants subsequent to receiving such services and utilizes such information in making identifications pursuant to subparagraph (A); and

“(D) meets such other requirements as the Secretary of Labor determines are appropriate.

“(2) Whenever the Secretary of Labor, after reasonable notice and opportunity for hearing to the State agency charged with the administration of the State law, finds that there is a failure to comply substantially with the requirements of paragraph (1), the Secretary of Labor shall notify such State agency that further payments will not be made to the State until he is satisfied that there is no longer any such failure. Until the Secretary of Labor is so satisfied, he shall make no further certification to the Secretary of the Treasury with respect to such State.”

(b) CONFORMING AMENDMENT.—Section 304(a)(2) of the Social Security Act is amended by striking “or (i)” and inserting “(i), or (j)”.

(b) PARTICIPATION REQUIREMENT.—Section 303(a) of the Social Security Act is amended—

(1) by striking the period at the end of paragraph (9) and inserting “; and”, and

18.
(2) by adding at the end thereof the following new paragraph:

"(10) A requirement that, as a condition of eligibility for regular compensation for any week, any claimant who has been referred to reemployment services pursuant to the profiling system under subsection (j)(1)(B) participate in such services or in similar services unless the State agency charged with the administration of the State law determines—

(A) such claimant has completed such services; or

(B) there is justifiable cause for such claimant's failure to participate in such services."

(c) TECHNICAL ASSISTANCE.—The Secretary of Labor shall provide technical assistance and advice to assist the States in implementing the profiling system required under the amendments made by subsection (a). Such assistance shall include the development and identification of model profiling systems.

(d) REPORT TO CONGRESS.—Not later than the date 3 years after the date of enactment of this Act, the Secretary of Labor shall report to the Congress on the operation and effectiveness of the profiling system required under the amendments made by subsection (a) and the participation requirement provided by the amendments made under subsection (b). Such report shall include such recommendations as the Secretary of Labor determines are appropriate.

(e) CONFORMING AMENDMENT.—Section 4 of the Emergency Unemployment Compensation Amendments of 1993 (Public Law 103–6) is hereby repealed.

(f) EFFECTIVE DATES.—

(1) The amendments made by subsections (a) and (b) shall take effect on the date one year after the date of the enactment of this Act.

(2) The provisions of subsections (c), (d), and (e) shall take effect on the date of enactment of this Act.

SEC. 5. TECHNICAL AMENDMENT TO UNEMPLOYMENT TRUST FUND.

Paragraph (1) of section 905(b) of the Social Security Act is amended to read as follows:

"(b)(1) Except as provided in paragraph (3), the Secretary of the Treasury shall transfer (as of the close of each month) from the employment security administration account to the extended unemployment compensation account established by subsection (a), an amount (determined by such Secretary) equal to 20 percent of the amount by which—

(A) the transfers to the employment security administration account pursuant to section 901(b)(2) during such month, exceed;

(B) the payments during such month from the employment security administration account pursuant to section 901 (b)(3) and (d).

If for any such month the payments referred to in subparagraph (B) exceed the transfers referred to in subparagraph (A), proper adjustments shall be made in the amounts subsequently transferred."

SEC. 6. EXTENSION OF REPORTING DATE FOR ADVISORY COUNCIL.

Section 908(f) of the Social Security Act is amended—

(1) in paragraph (1), by striking "2d year" and inserting "third year"; and
PUBLIC LAW 103-152—NOV. 24, 1993

107 STAT. 1519

(2) in paragraph (2), by striking “February 1, 1994” and inserting “February 1, 1995”.

SEC. 7. TEMPORARY INCREASE IN SPONSORSHIP PERIOD FOR ALIENS UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM.

(a) INCREASE IN SPONSORSHIP PERIOD.—
(1) In general.—Section 1621 of the Social Security Act (42 U.S.C. 1382j) is amended by striking “three years” each place such term appears and inserting “5 years”.
(2) EFFECTIVE DATE.—The amendments made by paragraph (1) shall take effect on January 1, 1994.

(b) REINSTATEMENT OF PRIOR LAW.—
(1) In general.—Section 1621 of the Social Security Act (42 U.S.C. 1382j), as amended by subsection (a)(1) of this section, is amended by striking “5 years” each place such term appears and inserting “3 years”.
(2) EFFECTIVE DATE.—The amendments made by paragraph (1) shall take effect on October 1, 1996.

SEC. 8. TREATMENT OF RAILROAD WORKERS.

(a) EXTENSION OF PROGRAM.—
(1) In general.— Paragraphs (1) and (2) of section 501(b) of the Emergency Unemployment Compensation Act of 1991 (Public Law 102–164, as amended) are each amended by striking “October 2, 1993” and inserting “January 1, 1994”.
(2) CONFORMING AMENDMENT.—Section 501(a) of such Act is amended by striking “October 1993” and inserting “January 1994”.

(b) LENGTH OF BENEFITS DURING PERIOD OF EXTENSION.—Section 501(d)(2)(B)(ii) of such Act is amended by striking “on and after the date on which a reduction in benefits is imposed under section 102(b)(2)(A)(iv)” and inserting “after October 2, 1993”.

(c) TERMINATION OF BENEFITS.—Section 501(e) of such Act is amended—
(1) by striking “October 2, 1993” and inserting “January 1, 1994”, and
(2) by striking “January 15, 1994” and inserting “March 26, 1994”.

SEC. 9. EFFECTIVE DATES.

(a) REPEAL OF DISREGARD OF RIGHTS TO REGULAR COMPENSATION.—Notwithstanding the provisions of section 3(b) of this Act, the repeal made by section 3(a) of this Act shall apply to weeks of unemployment beginning after October 2, 1993, except that such repeal shall not apply in determining eligibility for emergency unemployment compensation from an account established before October 3, 1993.

(b) RAILROAD WORKERS.—
(1) In general.— Paragraphs (1) and (2) of section 501(b) of the Emergency Unemployment Compensation Act of 1991 (Public Law 102–164, as amended), as amended by section 8(a)(1) of this Act, are each amended by striking “January 1, 1994” and inserting “February 5, 1994”.
(2) CONFORMING AMENDMENT.—Section 501(a) of such Emergency Unemployment Compensation Act of 1991, as amended by section 8(a)(2) of this Act, is amended by striking “January 1994” and inserting “February 1994”.

20.
(3) **TERMINATION OF BENEFITS.**—Section 501(e) of such Emergency Unemployment Compensation Act of 1991, as amended by section 8(c) of this Act, is amended—

(A) by striking "January 1, 1994" and inserting "February 5, 1994"; and

(B) by striking "March 26, 1994" and inserting "April 30, 1994".

Approved November 24, 1993.
DIRECTIVE: UNEMPLOYMENT INSURANCE PROGRAM LETTER NO. 13 94

TO: ALL STATE EMPLOYMENT SECURITY AGENCIES

FROM: MARY ANN WYRSCH
Director
Unemployment Insurance Service

SUBJECT: The Unemployment Compensation Amendments of 1993 (Public Law 103-152) - Provisions Affecting the Federal-State Unemployment Compensation Program

1. Purpose. To advise State employment security agencies (SESAs) of the provisions of the Unemployment Compensation Amendments of 1993, Public Law (P.L.) 103-152, which affect the Federal-State Unemployment Compensation (UC) Program.

2. References. Section 4 of P.L. 103-152; Titles III and IX of the Social Security Act (SSA); P.L. 103-6; P.L. 102-318; UI Occasional Papers 89-3 and 91-1; and UIPL 45-93, dated September 23, 1993.

3. Background. On November 24, 1993, the President signed into law the Unemployment Compensation Amendments of 1993, P.L. 103-152. P.L. 103-152 extended the Emergency Unemployment Compensation (EUC) program, and amended the SSA to require States, as a condition of receiving administrative grants, to establish and utilize a system of profiling all new claimants for regular UC for purposes of identifying claimants who are likely to exhaust UC and will need job search assistance to make a successful transition to new employment. The SSA was further amended to require States to disqualify an individual identified pursuant this profiling system if the individual fails to participate in reemployment services. In addition, P.L. 103-152 made a technical change to Title IX of the SSA. States have already been advised of those provisions affecting the EUC program in GAL 12-92, Change 6. This issuance is limited to those amendments to the SSA affecting the Federal-State UC program. These amendments are as follows:

(a) a new requirement that States establish and utilize a system of profiling all new claimants for regular UC;

RESCISIONS
None

EXPIRATION DATE
January 31, 1995

22.
(b) a new requirement that State law require claimants identified as most likely to exhaust regular UC to participate in reemployment services as condition of UC eligibility; and

(c) a technical amendment to Title IX of the SSA pertaining to the Unemployment Trust Fund.

4. **Action Required.** SESAs are requested to take the action necessary to assure consistency with Federal requirements as amended by P.L. 103-152. The effective dates for implementation of these amendments are found in Attachment III.

5. **Inquiries.** Inquiries should be directed to your Regional Office.

6. **Attachments.**

   I. **UNEMPLOYED WORKER PROFILING**

   II. **PARTICIPATION IN REEMPLOYMENT SERVICES**

   III. **DRAFT LANGUAGE TO IMPLEMENT SECTION 4(b) OF P.L. 103-152**

   IV. **TECHNICAL AMENDMENT CONCERNING THE UNEMPLOYMENT TRUST FUND**
b. **Discussion.**

**Profiling — Situation Prior to Enactment of P.L. 103-152.** Profiling is based on the premise that a set of characteristics — a "profile" — can be developed to identify, at an early stage of unemployment, which workers are likely to exhaust UC and will need assistance to find new jobs. Research on this point sponsored by the Department of Labor and conducted in the State of New Jersey found that profiled claimants who received reemployment services returned to work earlier than those who did not receive such services. (See UI Occasional Papers 89-3 and 91-1 which contain reports on the New Jersey project.) In addition, studies on the long-term unemployed have found that individual characteristics such as schooling and job tenure relate to when the individuals return to work. Thus, providing early reemployment assistance to individuals most likely to remain out of work should result in an earlier return to work.

Section 4 of P.L. 103-6 addressed the establishment of a system of profiling all new claimants for regular UC (including new claimants under Federal unemployment benefit allowance programs) to determine which claimants may be most likely to exhaust regular UC and may need reemployment services to make a successful transition to new employment. Although States were not required to establish a system of profiling, the Secretary was directed to "encourag[e] [its] adoption and implementation by all States," as well as provide "technical assistance and advice to the States in the development of model profiling systems."

In response to this legislation, the Department took action to develop a model profiling system. UIPL 45-93 was issued and States were encouraged to provide comments on the profiling system and the procedures needed to implement it. The Department was in the process of developing this system and a strategy for its implementation when P.L. 103-152 was enacted.

**Profiling — Effect of P.L. 103-152.** The amendments made by P.L. 103-152 repealed Section 4 of P.L. 103-6 and added subsection (j) to Section 303, SSA, to require States, as a condition for receiving Title III grants, to implement and utilize a system of profiling all new claimants for regular UC. Under Section 303(j)(1), SSA, the system must include components which:

1. Identify which claimants will be likely to exhaust regular UC and will need job search assistance services to make a successful transition to new employment.
UNEMPLOYED WORKER PROFILING

a. Text of Amendment - Section 4(a) of P.L. 103-152.

SEC. 4. WORKER PROFILING.

(a) IN GENERAL.--

(1) ESTABLISHMENT OF PROFILING SYSTEM.--Section 303 of the Social Security Act is amended by adding at the end thereof the following new subsection:

"(j)(1) The State agency charged with the administration of the State law shall establish and utilize a system of profiling all new claimants for regular compensation that--

"(A) identifies which claimants will be likely to exhaust regular compensation and will need job search assistance services to make a successful transition to new employment;

"(B) refers claimants identified pursuant to subparagraph (A) to reemployment services, such as job search assistance services, available under any State or Federal law;

"(C) collects follow-up information relating to the services received by such claimants and the employment outcomes for such claimants subsequent to receiving such services and utilizes such information in making identifications pursuant to subparagraph (A); and

"(D) meets such other requirements as the Secretary of Labor determines are appropriate.

"(2) Whenever the Secretary of Labor, after reasonable notice and opportunity for hearing to the State agency charged with the administration of the State law, finds that there is a failure to comply substantially with the requirements of paragraph (1), the Secretary of Labor shall notify such State agency that further payments will not be made to the State until he is satisfied that there is no longer any such failure. Until the Secretary of Labor is so satisfied, he shall make no further certification to the Secretary of the Treasury with respect to such State."
2. Refer the claimants described in item 1 above to reemployment services, such as job search assistance services, available under any State or Federal law. The Conference Committee Report defines "reemployment services" as:

... job search assistance and job placement services, such as counseling, testing, and providing occupational and labor market information, assessment, job search workshops, job clubs and referrals to employers, and other similar services. [H. Rep. No. 333, 103rd Cong. 1st Sess., 5 (1993)]

3. Collect follow-up information relating to the services received by such claimants and their employment outcomes and use the information for future profiling.

4. Meet "such other requirements as the Secretary of Labor determines are appropriate."

The Department of Labor will provide further guidance concerning "reemployment services," "job search assistance," "follow-up information," "employment outcomes" and any other requirements the Secretary of Labor determines to be necessary for the proper implementation of a profiling system.

c. Technical Assistance and Report. Section 4(c) of P.L. 103-152 requires that the "Secretary of Labor shall provide technical assistance and advice to assist the States in implementing the profiling system" and that "such assistance shall include the development and identification of model profiling systems." The Department of Labor plans to provide technical assistance to States. Information concerning this assistance and the model profiling systems will be provided in future issuances.

Section 4(d) of P.L. 103-152 requires that, not later than the date three years after the date of enactment of P.L. 103-152, the Secretary of Labor will report to the Congress on the operation and effectiveness of the profiling system and of the participation requirement described in Attachment II below. Since P.L. 103-152 was enacted on November 24, 1993, the report is due November 24, 1996.

d. Effective Date. Section 303(j)(2), SSA, requires that States must comply substantially with the requirements of 303(j)(1), SSA as a condition of receiving administrative grants under Section 303(a), SSA.

Under Section 4(f)(1) of P.L. 103-152, new Section 303(j), SSA, "shall take effect on the date one year after the date
of the enactment of this Act," or November 24, 1994. In determining whether to take action against a State which has not appropriately amended its law and/or not established a profiling system by this effective date, the Department of Labor will take into consideration the feasibility of such State taking that action to meet the requirements of the statute, as interpreted by the Department in its operating instructions. These operating instructions will be provided in future issuances.
PARTICIPATION IN REEMPLOYMENT SERVICES

a. Text of the Amendment – Section 4(b) of P.L. 103-152.

(b) PARTICIPATION REQUIREMENT.—Section 303(a) of the Social Security Act is amended—
(1) by striking the period at the end of paragraph (9) and inserting "; and ", and
(2) by adding at the end thereof the following new paragraph:
"(10) A requirement that, as a condition of eligibility for regular compensation for any week, any claimant who has been referred to reemployment services pursuant to the profiling system under subsection (j)(1)(B) participate in such services or in similar services unless the State agency charged with the administration of the State law determines—
"(A) such claimant has completed such services; or
"(B) there is justifiable cause for such claimant's failure to participate in such services."

b. Discussion. P.L. 103-152 added Section 303(a)(10) to the SSA to require States, as a condition of receiving Title III grants, to place an additional condition of eligibility on claimants who have been referred to reemployment services pursuant to the profiling system under subsection 303(j)(1)(B), SSA. A profiled claimant, in order to be eligible for regular UC for any given week, must participate in reemployment services or similar services unless the State agency determines that (1) the profiled claimant has already completed such services; or (2) there is a justifiable cause for the claimant's failure to participate in such services. The Department of Labor will provide further guidance to States concerning participation in "reemployment services" or "similar services" and "justifiable cause."

The Department believes States will need to amend their laws to provide for a disqualification based on a profiled claimant's failure to participate in reemployment services. If a State does not need to make such a law change, it will be necessary to notify the Department that such a disqualification can be accomplished without amendment.

c. Effective Date. Section 4(f) of P.L. 103-152, requires that new Section 303(a)(10), SSA, "shall take effect on the date one year after the date of the enactment of this Act," or November 24, 1994. In determining whether

28.
to take action against a State which has not met this requirement by this effective date, the Department of Labor will take into consideration the feasibility of such State timely amending its law and establishing a profiling system (which is a necessary requisite to this denial provision) which meets the requirements established by the Department in its operating instructions.
DRAFT LANGUAGE TO IMPLEMENT SECTION 4(b) of P.L. 103-152

States needing to amend their laws to incorporate the new eligibility criteria established by P.L. 103-152, may wish to use the following draft language.

(a) Eligibility for benefits.--An unemployed individual shall be eligible to receive benefits with respect to any week only if the individual:

* * *

(___) participates in reemployment services, such as job search assistance services, if the individual has been determined to be likely to exhaust regular benefits and need reemployment services pursuant to a profiling system established by the Commissioner.
TECHNICAL AMENDMENT CONCERNING THE UNEMPLOYMENT TRUST FUND

a) Text of the Amendment- Section 5 of P.L. 103-152.

Sec. 5. Technical Amendment to Unemployment Trust Fund.

Paragraph (1) of Section 905(b) of the Social Security Act is amended to read as follows:

"(b)(1) Except as provided in paragraph (3), the Secretary of the Treasury shall transfer (as of the close of each month) from the employment security administration account to the extended unemployment compensation account established by subsection (a), an amount (determined by such Secretary) equal to 20 percent of the amount by which--

"(A) the transfers to the employment security administration account pursuant to section 901(b)(2) during such month, exceed

"(B) the payments during such month from the employment security administration account pursuant to section 901(b)(3) and (d).

If for any such month the payments referred to in subparagraph (B) exceed the transfers referred to in subparagraph (A), proper adjustments shall be made in the amounts subsequently transferred."

b) Discussion. The legislation proposed which eventually became P.L. 102-318 contained a provision which would have amended Section 901(b)(1), SSA, to create new subparagraphs (A) and (B). This provision was not enacted. However, corresponding amendments to Section 905(b) were included in the enacted version of P.L. 102-319. As these amendments referred to non-existent sections, the amendments had no effect. Section 5 of P.L. 103-152 amended Section 905(b), SSA, to delete the erroneously enacted language pertaining to the non-existing section.
DIRECTIVE: UNEMPLOYMENT INSURANCE PROGRAM LETTER NO. 13-94
CHANGE 1

TO: ALL STATE EMPLOYMENT SECURITY AGENCIES

FROM: MARY ANN WYRSCH
Director
Unemployment Insurance Service

SUBJECT: Draft Language - Failure to Participate in Reemployment Services

1. Purpose. To provide State Employment Security Agencies (SESAs) with revised draft language to implement Section 4(b) of Public Law (P.L.) 103-152 and clarify certain elements of UIPL 13-94.

2. References. UIPL 13-94; Section 4 of P.L. 103-152; Section 303(a)(10) of the Social Security Act (SSA).

3. Background. UIPL 13-94 provided information on the provisions of the Unemployment Compensation Amendments of 1993, P.L. 103-152, which affect the Federal-State unemployment compensation (UC) program. Attachment III to UIPL 13-94 provided draft language to implement new Section 303(a)(10), SSA, as added by Section 4(b) of P.L. 103-152, which requires that certain individuals be held ineligible for UC for failure to participate in reemployment services. However, the draft language erroneously omitted language pertaining to exceptions to this requirement. This UIPL provides amended draft language and further clarification of UIPL 13-94.

4. Revised Draft Language. States needing to amend their laws to incorporate the new eligibility criteria established by P.L. 103-152 may wish to use the following draft language:
(a) Eligibility for benefits.--An unemployed individual shall be eligible to receive benefits with respect to any week only if the individual:

**

(_,_) participates in reemployment services, such as job search assistance services, if the individual has been determined to be likely to exhaust regular benefits and to need reemployment services pursuant to a profiling system established by the Commissioner, unless the Commissioner determines that:

(a) the individual has completed such services; or

(b) there is justifiable cause for the claimant's failure to participate in such services.

Section 303(a)(10), SSA, requires State laws to contain "a requirement that, as a condition of eligibility for regular compensation for any week, any claimant who has been referred to reemployment services pursuant to the profiling system . . . participate in such services or in similar services unless the State agency . . . determines (A) such claimant has completed such services; or (B) there is justifiable cause for such claimant's failure to participate in such services."

(Emphasis added.) Therefore, the State law is required to provide not only that eligibility for regular UC is conditioned on a claimant's participation in reemployment services, but also that such condition is treated as met if the claimant has completed such services, or there is justifiable cause for the claimant's nonparticipation.

It should be further noted that the above language is intended to be added to the section of State law containing eligibility requirements (e.g., Employment Service registration and able and available requirements). Justifiable cause does not supersede State able and available requirements, but rather is an additional eligibility requirement related to participation in reemployment services. Specifically, if an individual is determined to have justifiable cause for failure to participate in reemployment services, the individual still must meet a State's able and available requirements to be eligible for UC.
5. **Clarification.** At one point, UIPL 13-94 uses the term "disqualification" when referring to the eligibility requirement that individuals participate in reemployment services. It would be more accurate to refer to those individuals who fail to participate in reemployment services as being "ineligible" for UC.

6. **Action Required.** SESAs are requested to take the action necessary to assure consistency with Federal requirements. The Department of Labor assumes States will need to amend their laws in accordance with the revised draft language. If a State does not need such a law change, it will be necessary to so notify the Department.

6. **Inquiries.** Inquiries should be directed to your Regional Office.
DIRECTIVE: UNEMPLOYMENT INSURANCE PROGRAM LETTER NO. 41-94

TO: ALL STATE EMPLOYMENT SECURITY AGENCIES

FROM: MARY ANN WYRSCH
Director
Unemployment Insurance Service

SUBJECT: Unemployment Insurance Program Requirements for the Worker Profiling and Reemployment Services System

1. Purpose. To provide guidance on Unemployment Insurance (UI) program requirements for the Worker Profiling and Reemployment Services system.

2. References

   a. Laws. Title III of the Social Security Act (SSA); Section 4 of Public Law (P.L.) 103-152; the Federal-State Extended Unemployment Compensation Act of 1970 (EUCA); 5 U.S.C. 8501 et seg.; and Title III of the Job Training Partnership Act (JTPA), "Employment and Training Assistance for Dislocated Workers."


3. Background. On November 24, 1993, the President signed into law the Unemployment Compensation Amendments of 1993 (P.L. 103-152) which added Sections 303(a)(10) and 303(j) to the SSA. Both of these new sections contain requirements States must meet as a condition of States receiving UI grants. (The text of both sections is contained in the Attachment.) Under Section 303(j)(1), SSA, the State must:

   o Identify which claimants will be likely to exhaust regular UI and will need job search assistance services to make a successful transition to new employment. (Subparagraph (A) of Section 303(j)(1), SSA.)

35.
- Refer the claimants so identified to reemployment services, such as job search assistance services, available under any State or Federal law. (Subparagraph (B) of Section 303(j)(1), SSA.)

- Collect follow-up information relating to the services received by such claimants and their employment outcomes and use the information for future profiling. (Subparagraph (C) of Section 303(j)(1), SSA.)

- Meet "such other requirements as the Secretary of Labor determines are appropriate." (Subparagraph (D) of Section 303(j)(1), SSA.)

In addition, Section 303(a)(10), SSA, requires claimants to participate in reemployment services to which they have been referred as a condition of UI eligibility. P.L. 103-152 requires the Secretary of Labor to provide technical assistance and advice to the States in implementing the worker profiling systems.

One of the principal aims of the profiling system is to provide reemployment services to certain claimants through an "early intervention" process. That is, claimants who are unlikely to return to their previous jobs or occupations will be identified and given assistance early in their claims series. This approach is expected to facilitate an early return to employment and savings to each State's unemployment fund.

In response to this legislation, the U.S. Department of Labor (Department) has launched a major initiative to establish an integrated, comprehensive worker profiling and reemployment services system involving various programs, including the UI, Employment Service, and Title III, JTPA programs. To this end, information describing how a recommended integrated system might operate was issued to the States through the Department's Regional Offices. (This recommended system followed the overall approach embodied in the proposed Reemployment Act of 1994.) However, since the SSA amendments create specific requirements as a condition of receiving UI administrative grants, it is necessary to provide guidance to States concerning what actions must be taken concerning the UI program. This issuance provides definitive guidance concerning these actions.

Among other things, this UIPL describes the minimum required profiling system for identifying and referring claimants. That the States must use this required profiling system does not, however, abridge the States' authority to use other
methods, not related to the minimum system, for identifying claimants for referral. For example, assuming a service provider has twenty-five slots, a State may refer only fifteen claimants identified under the minimum required profiling system to the provider if the State also refers ten claimants using whatever methods it deems appropriate.

4. Overview of Profiling and Reemployment Services System. Federal law does not specify a detailed structure for the profiling and reemployment services system. That is left to the States. However, in order to meet the statutory requirements and coordinate between the various employment and training programs, the Department anticipates that the following general structure will be used by all States:

- The UI agency will profile all claimants to identify those likely to exhaust regular UI and in need of reemployment services.

- To the extent that reemployment services are available, the "identified" claimants will either be immediately referred to these services or placed in a selection pool from which a referral may later be made.

- Services will begin with an orientation session advising claimants of the availability and benefit of reemployment services, and, if appropriate, an individual assessment of each claimant's needs. Based on an individual service plan, the claimant may be referred to reemployment services tailored to the individual's needs.

- The entity providing the reemployment services will promptly provide the UI agency with any necessary information relating to the claimants' continuing eligibility for UI.

5. Arrangements with Service Provider(s). Under the authority granted by Section 303(j)(1)(D), SSA, which allows the Secretary to establish other requirements as are determined appropriate, the Department has determined that State UI agencies are to establish certain arrangements with the entities providing reemployment services. When the UI agency is not part of the same overall State agency as the service provider (for example, an employment security agency or executive department), the Department recommends that these arrangements be in a written agreement. Arrangements must be made in two areas: the number of claimants to be referred to the provider and the information the provider must forward to the UI agency.
a. **Number of Claimants Referred.** The burden of reporting to service providers should not be placed upon claimants when services are not available. Similarly, service providers should not be required to expend time and resources working with referred claimants when services are not available for them. Therefore, there must be a balance between the available supply of services and referrals to these services. To avoid excessive referrals, the agreement must provide a method for assuring that the number of claimants referred to the provider is based on the number the provider is able to serve.

Section 303(j)(1)(B), SSA, only requires the referral to "available" reemployment services of claimants identified as likely to exhaust regular UI and who need job search assistance. Therefore, the State will meet the requirements of Section 303(j)(1)(B), SSA, when the supply of services and referrals to these services is balanced.

b. **Receipt of Information.** New Section 303(a)(10), SSA, requires that claimants, identified and referred to reemployment services through profiling, participate in such services, or in similar services, as a condition of UI eligibility. Also, Section 303(a)(1), SSA, requires "methods of administration . . . as are found by the Secretary to be reasonably calculated to insure full payment of unemployment compensation when due." This means the UI agency must have methods of administration for obtaining eligibility information from service providers and for promptly determining eligibility based on this information. To ensure service providers meet the UI agency's needs, arrangements must exist for the prompt provision of any necessary eligibility information concerning participation or availability. States also will need to establish methods of administration for obtaining this information when claimants are attending "similar services" as discussed in item 11.b.

Further, as discussed in item 12 below, States must provide information to this Department related to reemployment services received by claimants and employment outcomes. Arrangements must be made for the provision of this information.

6. **Definition of "Reemployment Services."** The second conference report for P.L. 103-152, which added Sections 303(a)(10) and 303(j) to the SSA, describes "reemployment services" as including--

job search assistance and job placement services, such as counseling, testing, and providing occupational and labor market information, assessment, job
search workshops, job clubs and referrals to employers, and other similar services. [H.R. Conf. Rep. No. 404, 103rd Cong., 1st Sess. 5 (1993)]

Reemployment services need not include skills and education training. Therefore, States are not required to apply the participation requirement discussed in item 11.a. to such training even if claimants are referred to such training through the worker profiling and reemployment services system.

Orientation and assessment activities are both reemployment services for purposes of Sections 303(a)(10) and 303(j), SSA. Orientation is a service since claimants are made aware of why services are available and what the services are and, as a result, are able to participate in the identification of appropriate services to assist them in returning to employment. Assessment is a service since it identifies the specific needs of each claimant. Assessment is also listed as a reemployment service in the Committee Report.

7. *Benefit Rights Interview (BRI).* Under the Secretary's Standard for Claim Determinations, individuals who may be entitled to UI must be provided information as will reasonably afford them an opportunity to know, establish and protect their rights under the UI law of the State. Therefore, BRI information provided to claimants during the initial claims taking process must advise claimants of the possible consequences of failure to report or to participate in any reemployment services to which they may be referred.

8. *Identifying Claimants Likely to Exhaust and in Need of Reemployment Services*

   a. *Who is to be Profiled.* Section 303(j)(1)(A), SSA, requires that State agencies establish and utilize a system of profiling "all new claimants for regular compensation" (i.e., regular UI) that "identifies which claimants will be likely to exhaust regular compensation and will need job search assistance services to make a successful transition to new employment." Based on the plain language of Section 303(j)(1)(A), all claimants for regular UI must be profiled.

The term "regular compensation" is defined in Section 205(2), "EUCRA, as "compensation payable to an individual under any State unemployment compensation law (including compensation payable pursuant to 5 U.S.C. chapter 85), . . . other than extended compensation and additional compensation." Through the reference to 5 U.S.C. chapter 85, the phrase "all new claimants for regular compensation" includes claimants filing for UI for ex-servicemembers (UCX) and
Federal employees (UCFE). The phrase "all new claimants for regular compensation" includes all intrastate, interstate and combined-wage claimants.

The Department will work with the States in developing arrangements for profiling interstate claimants. In determining whether to take action against a State which is not profiling and referring interstate claimants, the Department will take into account the feasibility of such State taking appropriate action.

b. Who is to be Identified. The profiling system must be structured so as to identify which claimants will be likely to exhaust regular UI and will need job search assistance services to make a successful transition to new employment. If a claimant is not permanently laid off, there is no need for job search assistance to make a "transition to new employment" and the likelihood of exhaustion also decreases. Similarly, if jobs exist in the current industry or occupation, then the claimant is less likely to exhaust and to need job search assistance to make a "transition to new employment." The word "transition" as used in Section 303(j)(1), SSA, indicates that the requirement for participation in reemployment services is not aimed at claimants who are merely between jobs in the same industry or occupation, but instead at claimants who are having to make a "transition" to jobs in a different industry or occupation.

As a result of this analysis, the Department has determined the following minimum requirement: A State profiling system must identify all new claimants for regular UI who are permanently laid off (and who are, therefore, likely to exhaust). From the claimants so identified, the State must further identify at least one of the following: (1) those claimants who are unlikely to return to their previous industry or (2) those claimants who are unlikely to return to their previous occupation.

Claimants identified under the minimum required profiling system described above will also be "eligible dislocated workers" under Section 303(a)(1)(A) of Title III, JTPA. This section defines the term "eligible dislocated workers" to mean individuals who "have been terminated or laid off or who have received a notice of termination or layoff from employment, are eligible for or have exhausted their entitlement to unemployment compensation, and are unlikely to return to their previous industry or occupation." Claimants identified through the minimum profiling system described above are--as are certain "eligible dislocated workers"--permanently laid off from employment, eligible for UI, and unlikely to return to their previous industry or
occupation. Therefore, claimants identified through the minimum required profiling system will also be "eligible dislocated workers" for purposes of Title III, JTPA.

c. How Claimants are to be Identified

(1) Variables. The use of certain types of variables is required to ensure that claimants identified are permanently laid off and unlikely to return to their previous industry or occupation. The use of other variables is optional. In addition, the use of certain variables is prohibited.

Under the minimum required profiling system, the following variables must be used:

- **First Payment for Total or Part-Total Unemployment:** Since claimants cannot exhaust UI unless they are first eligible for UI, the use of this variable is required. Claimants receiving first payments for partial claims are not required to be identified for referral since there has been no separation from employment.

First payment to some claimants will occur late in their claims series due to appeals, wage investiga-
gations or other causes. Since, as noted in item 8.a, "all new claimants" for UI must be profiled, claimants receiving late payments must be profiled. However, given that the profiling system's goal of early intervention will not be achieved for these claimants, States have the option of introducing an additional variable to the profiling system which would exclude claimants who receive first payments after a certain period of time (for example, 5 weeks).

- **Recall Status:** Since claimants who are on recall will not need reemployment services and are less likely to exhaust UI, the use of this variable is required.

- **Hiring Halls:** Claimants making exclusive use of a union hiring hall will not need reemployment services since these claimants are expecting to find work in their current occupation. If union hiring halls are used in the State, then the State must use this variable.

Claimants remaining after these three variables are applied will be passed through either a statistical modeling or characteristic screening process to determine difficulty in
finding reemployment. (See item 8.c.(2) below.) Following are variables which the Department has identified for use in this process:

- **Education**: Educational level is closely associated with reemployment difficulty. Generally, claimants with less education are more likely to exhaust. Use of this variable is a State option.

- **Job Tenure**: This is a measure of a claimant's attachment to a specific employer. Studies show that the longer a worker's specific job attachment, the more difficult it is to find equivalent employment elsewhere. Use of this variable is a State option.

- **Industry**: A claimant's search for employment is affected by the former industry of employment. Claimants who worked in industries that are declining, relative to others in the State, experience greater difficulty in obtaining new employment than claimants who worked in expanding industries. States must use either this variable or "occupation."

- **Occupation**: Workers in low demand occupations experience greater reemployment difficulty than workers in occupations with higher demand. States must use either this variable or "industry."

- **Unemployment Rate**: Dislocation and reemployment difficulty are closely related to economic conditions, as measured by unemployment rates. In areas with high unemployment, unemployed workers will have greater difficulty becoming reemployed than those workers in areas with low unemployment, even if all other conditions are equal. Use of this variable is a State option.

To summarize, under the minimum required profiling system, States must use first payment, recall status, hiring halls (if they are used in the State), and either industry or occupation to identify claimants for purposes of referral to reemployment services. Using the above optional variables will decrease the number identified under the profiling system; however, the result will be a greater precision in identification. The Department will notify States if any additional optional variables are identified.

Finally, a profiling system may not produce results which discriminate in violation of any Federal or State law or which otherwise unfairly favors some claimants over those.
similarly situated with respect to their need for reemployment services. To this end, under the authority granted by Section 303(j)(1)(D), SSA, which allows the Secretary to establish other requirements as are determined appropriate, the Department has determined that the following elements may not be used in the profiling system: age, race, ethnic group, sex, color, national origin, disability, religion, political affiliation and citizenship.

(2) **Statistical Modeling versus Characteristic Screening.** Statistical modeling uses a set of variables in combination simultaneously. Each variable receives a weight (or "coefficient") that has been established by a statistical process. The weighted average produces a ranking. Characteristic screening, on the other hand, uses each variable as an exclusion variable. That is, depending on whether the answer is "yes" or "no" to a given question, claimants will be either included or excluded. Unlike statistical screening, no ranking is produced.

Referral to services based on statistical modeling will be based on a numerical score since the higher the score, the more likely the claimant will exhaust and the greater the need for services. If claimants have the same scores, and there are not sufficient opportunities to participate in reemployment services, States must randomly select among those claimants for referral to assure claimants are treated equitably and the profiling system is legally defensible. Since claimants identified through characteristic screening cannot be ranked, States using this system must also randomly select from among the identified claimants for referrals. Under the authority granted by Section 303(j)(1)(D), SSA, which allows the Secretary to establish other requirements as are determined appropriate, the Department has determined that random selection is required for use in profiling systems.

The Department encourages the use of statistical models since they are more efficient and precise in identifying claimants as well as easier to manage and adapt. However, States may use characteristic screening. Whichever system is used, each State must assure that the system implemented in fact identifies claimants who are permanently laid off and unlikely to return to work in either their previous industry or occupation.

9. **The Selection Pool.** Under the profiling system anticipated by the Department (see item 4), all claimants identified in accordance with the requirements of Section 303(j)(1), SSA, will be either immediately referred to reemployment services or, if services are not available,
placed in a selection pool. Claimants in the selection pool may be referred to services at a later date.

As noted in the background section, early intervention is one of the principal aims of the worker profiling and reemployment services initiative. Holding claimants in the pool for more than a minimum period of time will not achieve this early intervention. Therefore, the Department recommends that claimants be removed from the selection pool after 4 weeks.

In addition, the Department recognizes that large-scale permanent layoffs and plant closings do not occur at regular intervals. Therefore, there may be times when a State elects to retain claimants in the pool for longer periods. States may also elect to vary the length of time individuals are held in the pool by locality within the State.

10. Notifications of Referrals to Reemployment Services. Notification to claimants of referrals to reemployment services should occur only if a referral is actually made. (It is not necessary to notify claimants that they have been placed in the selection pool since they are not required to take any action until a referral is made.) These notification and referral notices must be in writing and must advise claimants:

- That they have been identified as likely to need reemployment services in order to make a successful transition to new employment.

- When and where to report for the services.

- To bring all relevant information concerning ongoing or recently completed reemployment services or current training in which they have participated and believe would help them return to work. Alternatively, States may choose to have certain claimants, such as those already in training, contact the UI agency first. Either way, the notice must clearly explain what information the claimant is expected to provide and to whom.

- That failure to participate in reemployment services may result in denial of UI.

Each State must maintain a record of each claimant referral notification in the same manner that it would any other formal correspondence that is pertinent to the adjudication of UI eligibility issues.
11. Adjudication of Issues Associated With Profiling and Reemployment Services

   a. Participation Requirement. Section 303(a)(10), SSA, creates a requirement that "as a condition of eligibility for regular compensation for any week, any claimant who has been referred to reemployment services . . . participate in such services or similar services." (Emphasis added.) The Department interprets the phrase "for any week" to mean that a claimant must participate in reemployment services (as defined in item 6 above) only during the week or weeks that the claimant is required to attend. Therefore, eligibility with respect to participation in reemployment services is determined on a weekly basis.

Claimants must be held ineligible for any week in which there is a failure to participate in reemployment services which they are required to attend unless they: have justifiable cause, have completed such services, or are attending similar services, as discussed below. Federal law does not require, however, that the maximum UI benefit amount be reduced.

Federal law does not require State UI laws to provide for a finding of ineligibility when claimants are no longer required to participate. For example, a claimant may refuse to participate during one week and be held ineligible for that week. If the claimant is required to participate the next week and again refuses, then the claimant will continue to be ineligible. However, if the claimant is not required to participate the next week, then there is no failure to participate and the State is not required to find the claimant ineligible. Similarly, a claimant who has refused to participate in available services and has been held ineligible may later agree to participate. In this case, if the services are no longer available to the claimant, Federal law does not require the claimant to be held ineligible for any additional weeks since there is no longer a failure to participate.

There is also no failure to participate when the service provider relieves claimants of the requirement that they attend. This may occur when, for example, a claimant notifies a provider of an inability to participate due to a family emergency and the service provider advises the claimant that it is not necessary to participate. (Note: This may raise an availability issue for the week(s) in question. This is why service providers must provide information concerning availability under item 5.b. above.)

Claimants are not required to be held ineligible if the failure to participate is minimal and does not significantly
affect their ability to benefit from the reemployment services in attempting to obtain new work. For example, if a claimant misses one hour of an eight hour seminar, the State may find that this limited absence is not a failure to participate.

b. Similar Services. Under Section 303(a)(10), SSA, a claimant referred under the profiling system is not required to participate in reemployment services if the claimant is participating in "similar services."

"Similar services" are reemployment services that claimants are attending on their own initiative. Examples of "similar services" include, but are not limited to, services offered by a company prior to a permanent layoff or services offered by private employment agencies. The "similar services" need not be identical to those to which the claimant was referred by the State; they need be only reasonably similar. The quality of the services being provided should be a relevant factor in determining whether the services are "similar."

Under the Secretary's Standard for Claim Determinations, the UI agency is required to obtain and record such information as will reasonably insure the payment of benefits to individuals when due. Therefore, the UI agency must perform sufficient factfinding to determine if, in fact, the services are similar. This means the UI agency must determine, among other things, to what services the claimant was referred and what the "similar services" are which the claimant is (or will be) attending.

c. Exceptions to Participation Requirement. Section 303(a)(10), SSA, contains two exceptions to the participation requirement. The first is whether the claimant has completed such services. The second is whether "justifiable cause" exists for the claimant's failure to participate in the services. (Note: As indicated in item 11.b, there is no participation requirement if claimants are participating in similar services.)

(1) Completion of "Such Services." Section 303(a)(10)(A) provides that a claimant who has completed "such services" is not required to participate in services to which the claimant has been referred. How recently the services were completed should be considered in making this determination since, for example, certain approaches to finding a job may have changed due to changing labor market conditions. Although the language "such services" appears to refer to those services to which the claimant was referred, it is reasonable to also include the completion of "similar services." Therefore, the Department interprets Section 303(a)(10)(A), SSA, as allowing States to consider
the completion of "similar services" as the completion of "such services."

(2) Justifiable Cause. Section 303(a)(10)(B) provides that a claimant who has "justifiable cause" is not required to participate in services to which the claimant has been referred. As noted in (1) above, although the language "such services" appears to refer to those services to which the claimant was referred, it is reasonable to also include the completion of "similar services." Otherwise, claimants attending "similar services" would not be relieved of the requirement to participate when justifiable cause exists. Therefore, the Department interprets Section 303(a)(10)(B), SSA, as allowing States to consider justifiable cause as a reason for not participating in "similar services."

For purposes of ensuring consistency with Section 303(a)(10), SSA, States must apply the "reasonable person" test in determining if justifiable cause exists for failure to participate. That is, States must determine if the reasons offered by claimants for failure to participate are such that a reasonable person would not have participated. As in other areas where the "reasonable person" test is used, such as failure to report to the UI office as required, States must expect that claimants take the actions a prudent and reasonable person would take prior to concluding that participation is not possible. For example, although a reasonable person would not be expected to leave children at home unattended, a reasonable person would also be expected to make an effort to obtain child care.

A finding of justifiable cause will last only for the period the justifiable cause is relevant. For example, justifiable cause due to short term illness will last only for the period of the illness. There may be cases when the State determines that the justifiable cause continues for a longer period or through the life of the claim, for example, when the claimant is in approved training under State law. (Note: The Department anticipates that claimants in approved training will not be required to participate in reemployment services while they are in training.)

d. Relation of Participation Requirement to Other State Eligibility Requirements. Depending on the nature and extent of the reemployment services in which the claimant is participating, States should apply other eligibility requirements in such a way as to not overly burden the claimant. For example, the State may choose to reduce the number of work search contacts required or relieve the claimant of the work search requirement during a period of participation in reemployment services, as appropriate.
As noted in UIPL 13-94, Change 1, the justifiable cause exception does not supersede State able and available requirements, but rather is an additional eligibility requirement related to participation in reemployment services. Claimants may be determined to have justifiable cause for failure to participate in reemployment services; however, they must still meet a State's able and available requirements to be eligible for UI. For example, although a claimant who is ill may have justifiable cause for failure to participate in reemployment services, the claimant is still subject to the State's able and available requirements and may, as a result, be ineligible for UI.

e. Appeal Rights. Under paragraphs (1) and (3) of Section 303(a), SSA, any eligibility determination that a claimant has failed to participate in reemployment services must be appealable. In addition, all determinations of UI eligibility must contain appeal rights in accordance with the Secretary's Standard for Claim Determinations.

Although States must allow claimants to appeal denials for failure to participate in orientation and assessment, States are not required to permit claimants to contest the propriety of the referral to orientation and assessment. Orientation and assessment are aimed at determining what, if any, additional reemployment services may be needed by the claimants. Obviously, if claimants do not report, this determination cannot be made. In this regard, referrals to orientation and assessment are similar to reporting and "call-in" requirements.

Claimants must, however, be allowed to question whether any services tailored to the individual are, in fact, needed. If any evidence appears at any stage of the nonmonetary determination or appeals process indicating that the claimant does not need these services, the UI agency must take the initiative in determining whether the referral was proper. If it is found not to be proper, then the participation requirement does not apply and there is no need to address exceptions such as justifiable cause.

12. Feedback and Reporting. Section 303(j)(1)(C), SSA, requires that States collect follow-up information relating to the reemployment services received by the referred claimants and the employment outcomes for these claimants. This information is to be used in refining the profiling system. Section 303(a)(6), SSA, also requires the States to provide "such reports, in such form and containing such information as the Secretary of Labor may from time to time require . . . ."
Under these authorities, States will be required to submit information concerning profiling to the Department. This UIPL does not address what information must be collected or reported. Specific instructions for reporting any information on services and outcomes will be issued as changes to ETA Handbook 401, "Unemployment Insurance Reports Handbook".

13. **Action Required.** Administrators are requested to provide this information to the staff developing the worker profiling and reemployment services system.

14. **Inquiries.** Inquiries should be directed to the appropriate Regional Office.

15. **Attachment.** Sections 303(j)(1) and 303(a)(10), SSA.
SECTIONS 303(j)(1) and 303(a)(10), SSA

1. SECTION 303(j)(1), SSA - ESTABLISHMENT OF PROFILING SYSTEM

The State agency charged with the administration of the State law shall establish and utilize a system of profiling all new claimants for regular compensation that—

(A) identifies which claimants will be likely to exhaust regular compensation and will need job search assistance services to make a successful transition to new employment;

(B) refers claimants identified pursuant to subparagraph (A) to reemployment services, such as job search assistance services, available under any State or Federal law;

(C) collects follow-up information relating to the services received by such claimants and the employment outcomes for such claimants subsequent to receiving such services and utilizes such information in making identifications pursuant to subparagraph (A); and

(D) meets other requirements as the Secretary of Labor determines are appropriate.

2. SECTION 303(a)(10), SSA - PARTICIPATION REQUIREMENT

[State law must contain] (10) A requirement that, as a condition of eligibility for regular compensation for any week, any claimant who has been referred to reemployment services pursuant to the profiling system under subsection (j)(1)(B) participate in such services or in similar services unless the State agency charged with the administration of the State law determines—

(A) such claimant has completed such services; or

(B) there is justifiable cause for such claimant’s failure to participate in such services.
DIRECTIVE  :  UNEMPLOYMENT INSURANCE PROGRAM LETTER NO. 45-93

TO        :  ALL STATE EMPLOYMENT SECURITY AGENCIES

FROM      :  BARBARA ANN FARMER
            Administrator for Regional Management

SUBJECT   :  Profiling Unemployment Insurance (UI) Claimants

1. Purpose. To introduce State Employment Security Agencies (SESA's) to the new, comprehensive UI profiling system that has been developed by the Department which focuses on: 1) the early identification of new UI claimants who might experience reemployment difficulties, and 2) the referral of those that are identified to reemployment services. SESAs are encouraged to provide comments on the profiling system and the operational procedures that will be necessary for profiling implementation.

2. References.

   a. UI Occasional Paper 89-3, New Jersey Unemployment Insurance
       Reemployment Demonstration Project, 1989.

   b. UI Occasional Paper 90-3, A Study of Unemployment Insurance

   c. UI Occasional Paper 91-1, The New Jersey Unemployment Insurance

   d. Kirsch, Irwin and Ann Jungeblut. Profiling the Literacy
       Proficiencies of JTPA and ES/ESUI Populations. Report to Department

   e. Ross, Murray and Ralph Smith. Displaced Workers: Trends in the
       1980s and Implications for the Future. Congressional Budget Office,
       1993

   f. Swaim, Paul and Michael Podgursky. "Do More-Educated Workers Fare
3. **Background.** Since the mid-1970s, major structural changes have been taking place in the American economy. Advances in technology, international competition, plant closings and corporate streamlining have resulted in the dislocation of thousands of workers from their jobs. These individuals have little or no hope of ever returning to their former occupations. Between one and two million dislocated workers are served by the UI program each year; however, a growing number are exhausting their UI benefits before they are able to re-enter the work force. Some of these claimants possess skills that are no longer in demand; others are suffering from a lack of job search skills. As a result, dislocated workers are experiencing extreme difficulties in their searches for new employment. Clearly these individuals need more than the traditional assistance that they receive under the current UI program.

Research sponsored by the Department of Labor and conducted in the State of New Jersey conclusively demonstrated that, based on UI claims information, newly dislocated workers could be profiled and referred to reemployment services by their fifth week of unemployment. The term "profiling" is based on the premise that a set of characteristics—a profile—can be developed to identify, at an early stage of their unemployment spell, UI claimants who are likely to be permanently displaced from their previous jobs. In the New Jersey study, identified claimants were referred to and provided with a range of reemployment services. Subsequent to referral and assistance, a significant number of claimants returned to work earlier than those claimants who did not receive reemployment services.

The New Jersey study proved that the profiling approach of early identification and referral based on a set of claimant characteristics works. Likewise, academic studies on the long-term unemployed have documented strong relationships between reemployment difficulty and individual characteristics such as schooling and job tenure. The Department of Labor has analyzed these study results, as well as the individual characteristics that were found to be successful in profiling new UI claimants. Building on the knowledge gained through statistical analyses of these studies, the Department has developed a comprehensive profiling system for nationwide implementation. The profiling system embraces the concept that, through a Federal/State partnership with States assuming operational leadership roles, those claimants that run the risk of being unemployed for prolonged periods and exhausting their UI benefits can be identified early in their unemployment experience. Once identification is made, the claimants can be referred to effective, much-needed reemployment assistance to help them get back into the work force.
4. **The Profiling System.** The critical need for a comprehensive early identification system to help the structurally unemployed received both Presidential and congressional attention; on March 4, 1993, the Worker Profiling Initiative was signed into law as Section 4 of the Emergency Unemployment Compensation (EUC) Amendments of 1993. The goal of the initiative is twofold:

1. establish an efficient, uniform UI profiling system that will identify those workers on permanent layoff who may have difficulty finding new employment, and
2. refer identified workers to reemployment services by no later than their fifth week of unemployment.

The profiling system that was developed by the Department is in accordance with the goals of the legislation, and involves three key elements: a) a profiling model that uses a set of specific data elements that identify new UI claimants who are likely to exhaust their UI benefits and experience reemployment difficulty; b) a procedure for selecting claimants who meet the profile and referring them to reemployment services; and c) a feedback mechanism to provide information on referred claimants (see figure 1).
a. **The Profiling Model.** As part of profiling system development, the Department has completed work on the general profiling model to be used in the system. The model is simple and straightforward in that it uses seven data elements or characteristics that have been tested and selected for their predictive power in determining the probability of an individual experiencing prolonged unemployment. The seven data elements are:

(1) whether the claimant is on recall;
(2) whether the claimant has a union hiring hall agreement;
(3) employment changes in the claimant's pre-UI industry;
(4) employment changes in the claimant's pre-UI occupation;
(5) the claimant's years of schooling;
(6) the claimant's job tenure; and
(7) the State total unemployment rate.

Three of the seven elements are the same ones that proved to be the most important and effective tools in the previously mentioned studies on dislocated workers; the remaining four were selected because they were statistically proven to be strong predictors of long-term unemployment, thus enhancing the efficiency of the profiling model.

The model should be thought of as the foundation for the profiling system, a framework that can be customized and adjusted by each State to suit its operating environment. It is sensitive not only to State economic environments but to growing and declining industries in the State as well. Moreover, the model differs from other approaches to profiling that currently may exist in the States in that it provides a uniform, systematic approach to identifying potentially long-term unemployed UI claimants; this uniform approach is fueled by the strength of the seven predictors that are combined to provide a comprehensive look at the important characteristics of the UI claimant.

b. **Claimant Selection and Referral.** It is envisioned that selection of claimants will be accomplished by applying the model to new UI claimants through automated processes. States would collect and maintain the data elements required to implement the profiling model. An automated process would then use this data to estimate the probability of reemployment difficulty for each claimant and compare the results to a State-determined threshold. Those claimants above the threshold would then be referred to reemployment services.
Various alternatives are possible for accomplishing the selection and referral process. The Department will work with the States and support their profiling efforts and implementation of the system.

c. The Feedback Mechanism. The feedback mechanism is a means for providing the UI program with information on the current status of those claimants who were identified and referred to reemployment services. Benefits associated with having a feedback mechanism include:

* providing State UI staff with information on the claimant’s status (whether the claimant is able and available for work or whether the claimant is in an approved training program, for example);

* tracking the type of reemployment service that was provided to the claimant; and

* determining whether or not the reemployment assistance that was given resulted in the claimant becoming employed.

5. The Federal/State Partnership. While the Department will develop the general guidelines for the profiling system and the model that would be the foundation for implementing the system, it is the States that would take the lead in actual system implementation, customizing the system to account for unique State needs and deciding how to implement it in such a way that would benefit both the State and its dislocated workers. The States are in the best position to provide the greatest help to the structurally unemployed; with the sturdy framework of a strong profiling system to assist them, the States can positively address structural unemployment.

The Department sees its role as providing technical assistance, advice and automation support to the States in the customization of their profiling systems. Additionally, the Department will provide materials which will offer guidance on such technical issues as how the system can be customized and installation options.

6. Profiling System Implementation: The Timeframe. The Department has sought resources in the Fiscal Year 1994 appropriations to fund the development of the profiling system in the States and to assist with augmenting State automated systems for profiling implementation. The strategy that has been developed by the Department is to initially implement the system in three prototype States. A solicitation for these three States will be issued at the end of October 1993; the process of State installation, customization and implementation for the prototype States would begin in March 1994. The profiling system will be offered to a "first wave" of seventeen to twenty-five States in the first quarter of calendar year 1994 based on a separate solicitation; fiscal year 1994 funding will be
7. **Availability of Additional Information.** A paper which describes in more detail the profiling system and the operational design of that system will be provided to the States at the end of October 1993. This paper will take into account comments received from the States in response to this directive. The paper will offer a more comprehensive discussion of the profiling model, the selection and referral of UI claimants, data sources and collection as it pertains to selection and referral, and the nature of technical support that is to be made available to the States by the Department. SESAs will have an opportunity to provide comments on this paper.

8. **Action Requested.** SESAs are encouraged to provide comments on the profiling system and the procedures that would be needed to implement the system. Comments should be sent by October 1st to the National Office, Attention: Ingrid Evans, TEURA. SESAs may also fax comments to the National Office's Unemployment Insurance Service, Attention: Ingrid Evans; the fax number is 202-219-8506.

9. **Inquiries.** Direct questions to the appropriate Regional Office. (Copies of referenced materials may be requested through the Regional Office.)
FIELD MEMORANDUM NO. 35-94

TO: ALL REGIONAL ADMINISTRATORS

FROM: BARBARA ANN FARMER
Administrator
for Regional Management

SUBJECT: Implementation of a System of Profiling Unemployment Insurance (UI) Claimants and Providing Them with Reemployment Services

1. Purpose. To advise Regional Offices (ROs) of the availability of Fiscal Year (FY) 1994 funds to assist selected State Employment and Training agencies in implementing a UI claimant profiling and reemployment services system; to provide procedures and guidance for States to use when submitting proposals to implement this system; and to issue guidelines for ROs to follow in reviewing State proposals.

2. References.


RESCISSIONS
None

EXPIRATION DATE
March 31, 1995
Compensation Program.


f. UIPL No. 2-94, Unemployment Insurance (UI) Technology Center.


3. Background. Implementation of UI claimant profiling is an important first step in the Department of Labor's (DOL) development of a comprehensive workforce strategy. This new strategy will modify the current unemployment compensation system to deal with an emerging customer base -- the dislocated worker. Profiling will become a primary way that dislocated workers enter reemployment services; it will join the other two methods of entering these services -- rapid response teams and self-referral.

Through profiling, the UI system will be made more responsive to the reemployment needs of dislocated workers. The profiling concept encompasses two fundamental principles:

a. The early identification of UI claimants who are "dislocated workers" -- i.e., individuals who:
   • are permanently laid off and are unlikely to return to their previous industry or occupation;
   • are likely to exhaust their regular UI benefits; and
   • will need reemployment assistance in order to make a successful transition to new employment.

b. The timely referral of those claimants who are
identified as dislocated workers to reemployment services. This early provision of services is designed to shorten claimant unemployment spells and to speed up the return to productive, stable employment. Previous studies conducted by DOL and the States have shown that the combination of early dislocated worker identification and referral to reemployment services such as job search assistance have positive impacts on an individual’s ability to return to work more quickly and to have more stable employment.

UI claimant profiling will establish a dynamic link between unemployment insurance and reemployment services systems. As such, the development and implementation of a profiling mechanism should be thought of as the first critical step in the establishment of a customer-focused "profiling and reemployment services system." The successful implementation and operation of this system will require the cooperative efforts of all agencies and organizations responsible for administering the unemployment compensation, employment service, dislocated worker and labor market information programs, as well as other reemployment service initiatives programs such as one-stop career centers that will be developed as a result of the Department’s workforce strategy.

Public Law (PL) 103-152 requires that State agencies establish and utilize a system of profiling all new claimants for regular unemployment compensation that:

1. identifies which claimants will be likely to exhaust regular compensation and will need job search assistance services to make a successful transition to new employment;

2. refers identified claimants to reemployment services, such as job search assistance services, available under any State or Federal law;

3. collects follow-up information relating to the services received by such claimants and the employment outcomes for such claimants; and

4. meets such other requirements as the Secretary of Labor determines are appropriate.

The law also states that such profiled claimants who are referred to reemployment services must participate in these services as a condition of eligibility for regular compensation, unless the State agency responsible for administering the UI program determines that the claimant has completed such services or that there is justifiable cause for the claimant’s failure to participate in such services. A
separate UIPL will be issued with additional instructions to States concerning eligibility issues and claimant exemptions from participation in reemployment services. Moreover, DOL must report to Congress on the effectiveness of State profiling systems within three years of the date of enactment of PL 103-152 (P.L. 103-152 became law on November 24, 1993).

While the profiling and reemployment assistance system is expected to be an important means of helping dislocated UI claimants return to work, some UI claimants will need more than basic reemployment services, such as job search assistance. (Reemployment services under P.L. 103-152 do not include education and skill or occupational training.) It is important to assure that some dislocated workers can, subsequent to receiving reemployment services, receive more intensive services, such as training and education which are available through the EDWAA program. As a result, the EDWAA program -- which may also provide job search assistance in some States -- will consider the identification and referral to services through the UI profiling and reemployment assistance system to constitute an adequate basis for EDWAA eligibility, and no further EDWAA eligibility determination will be necessary. (It should be noted that under the proposed Reemployment Act of 1994, eligibility for services under Title I can also be determined by worker profiling.)

4. Objectives and Basic Components of Profiling. The primary objective of the profiling and reemployment services system is to efficiently identify and match dislocated UI claimants with needed services by coordinating and balancing the flow of referrals with available reemployment service resources. This matching is done early in the UI claimant’s unemployment spell to foster a rapid return to productive employment in a manner that is cost-effective to society.

The basic components of the profiling and reemployment services system are outlined as follows:

a. Identification: Properly identify those UI claimants who are likely to be dislocated workers. Essentially, there are two identification methods that can be developed by the States: one using a statistical model, or one that uses non-statistical, claimant characteristic screens (discussions of both approaches begin on page 13).

b. Selection and Referral: Select and refer those UI claimants who are identified as dislocated workers to appropriate reemployment service providers by no later than the end of the fifth week from each identified claimant’s unemployment insurance initial claim date.
c. Reemployment Services: Provide claimants referred to service providers with appropriate reemployment services, such as job search assistance. To accomplish this effectively, there will need to be a coordination of efforts between the unemployment insurance system and the reemployment services providers to ensure that dislocated UI claimants are referred to available reemployment services based on their need for such services.

d. Feedback: Establish an information system between the service providers and UI that will provide information on services provided to referred claimants, referred claimant participation, and employment outcomes. This information will be necessary for determining continuing UI claimant eligibility, and for evaluating the effectiveness (i.e., outcomes) of profiling and reemployment services systems.

Coordination of efforts between the UI system and all service providers will be necessary to accomplish the collection, transmission and receipt of information. The generic flow of the profiling and reemployment services system is detailed in Attachment E, "Worker Profiling and Reemployment Services Initiative - Basic Operational Concepts." (This attachment reflects the joint input of the ETA’s UI, ES, EDWA, and One Stop organizations).

5. Key Data Elements Associated with UI Benefit Exhaustion.

Over the last twenty years, many studies and analyses have been conducted concerning worker dislocation, UI claimants’ benefit exhaustion, long-term unemployment (unemployment of twenty-six weeks or more), and related topics. Results from the studies clearly showed that certain worker characteristics, previous work experience, and prevailing economic conditions are closely associated with long-term unemployment. In the Department’s examination of dislocation factors, the worker and economic characteristics or "data elements" that follow were also found to be significantly associated with long-term unemployment. In general, the data elements listed below are considered important for accurate and efficient profiling (regardless of the profiling methodology used); therefore, DOL recommends that States collect and incorporate as many of these data elements as they can into their worker profiling and reemployment services systems.

(a) Recall Status: This data element serves to identify those claimants who are permanently separated from their jobs,
declining industries within State or sub-State areas.

(f) Previous Occupation: Those workers whose former occupation was in low demand experience greater dislocation and greater reemployment difficulty than workers that were in high-demand occupations. It should be noted that, in DOL's analysis of profiling data elements using national data, occupation was not quite as strong a predictor as the other elements described above and therefore may not be essential for use in State profiling and reemployment services systems. However, use of occupational data will enable States to more effectively identify those UI claimants most in need of reemployment services. Obtaining data concerning a claimant's former occupation could occur at the time of initial claim filing or via work registration, and then be matched with labor market information regarding expanding and contracting occupations in the State.

(g) Total Unemployment Rate: In sub-state areas with high unemployment, unemployed workers will have greater difficulty becoming reemployed than those workers in areas with low unemployment, all other conditions being equal. States which are able to utilize unemployment data for sub-State regions or areas may be able to enhance the accuracy of their profiling model.

In most States, information about the characteristics of individual claimants that are associated with unemployment benefit exhaustion will require that the data be collected during the initial claims process. In other States, some of the necessary data may be accessible from other sources and will not be collected at the point of initial claims filing. Education level, for example, is a data element that can only be collected from individual claimants.

Data elements that are likely to be collected through the initial claims process include the claimant's recall status, union hiring hall agreement, education level, years of tenure on the pre-UI job, and the industry and occupation codes for their pre-UI job. In some States, one or more of these profiling data elements may be gathered through the work registration process and be readily available from the Employment Service (e.g., occupation code); thus they would not need to be collected from the claimant at the initial claim filing point.

State Labor Market Information (LMI) systems are likely to be another very important source of the data needed for accurate identification of likely exhaustees. LMI data elements which may be needed for profiling and reemployment services systems include data on employment change by industry (to determine declining industries), employment data by occupation (to
determine declining occupations), and sub-state unemployment rates (a proxy for local economic conditions). In order to use these data elements in their profiling systems, States will need to establish linkages between their UI and State LMI programs. (DOL is exploring the possibility of developing automated methods for gathering LMI data for periodic distribution to State profiling systems).

Prohibited Data Elements. There are certain characteristics that are prohibited by DOL for use in profiling systems. These are: (1) age; (2) race or ethnic group; (3) sex; (4) color; (5) National origin; (6) disability; (7) religion; (8) political affiliation; and (9) citizenship. The use of any of the above variables in State profiling and reemployment service systems is prohibited by Federal law. State applications which propose the use of any of these variables will not be approved.

6. Profiling Methodologies. A critical component of a profiling and reemployment services system is a method to ensure the accurate and cost-effective identification of those UI claimants who are most at risk of exhausting unemployment benefits and needing reemployment services. The data elements used in the profiling process can be combined through two alternative methods (or a combination of these methods). The first method is the use of a statistical model; the second is the use of characteristic screens.

a. Profiling Using A Statistical Model. The use of a statistical model involves a process that considers all profiling data elements in combination simultaneously. In this method, each data element receives a specific weight—known as a "coefficient." These elements are then combined in an equation that generates a unique "probability of UI exhaustion" for each claimant—a weighted average of all the claimant’s characteristics combined. Those workers whose estimated probability scores are the highest are likely to have the greatest likelihood of UI exhaustion and therefore the greater need for reemployment services, while those whose scores are the lowest are the least likely to need such assistance. Workers can then be referred to reemployment services, starting with those most in need of assistance, and working down the list until available resources are exhausted. DOL has developed and tested a statistical model which, based on data from a national dislocated worker survey, identified those UI claimants who were most at risk of dislocation (see U.S. Information Bulletin 4-94). The DOL profiling model uses statistical processes to determine a claimant’s "probability of benefit exhaustion" based upon a combination of seven key factors associated with worker dislocation.
Two lessons learned in development and testing of the Department's model were that a statistical model is generally a more accurate predictor of dislocation than characteristic screens, and that data collection is made more efficient as well. A statistical model utilizes those variables proven to have a significant influence on an individual's chances of exhausting benefits in combination to look at many facets of a UI claimant's labor market prospects. As a result, this approach maximizes the chances of correct selections of claimants for referral to reemployment services (that is, correct selections of claimants who would have actually exhausted unemployment benefits).

Use of a statistical model also results in claimants being ranked by likelihood of benefit exhaustion. This permits efficient matching of UI claimants in need of reemployment services with availability of services. It is important to note that the use of a statistical model by any given State would require at least one year of historical data for each variable used in order to establish the relative importance of each factor. (A statistical model could be phased in, adding variables as data becomes available).

b. Profiling Using Characteristic Screens. Some States will be able to implement a profiling and reemployment services system using a statistical model, while others will not have the historical data available to develop a statistical model and will have to use characteristic screens. With characteristic screens, each profiling data element is used as a decision variable--yes or no, in or out--to screen claimants either into or out of the target group of likely benefit exhaustees. All claimants who are selected by this procedure are considered likely to exhaust their unemployment benefits; however, an individual's specific probability of benefit exhaustion is not determined using this approach. In other words, all claimants identified as likely exhaustees using this approach are considered to be equally in need of services.

Characteristic screens have been used successfully by States to profile UI claimants for referral to reemployment services. For example, a set of characteristic screens proved effective in identifying dislocated UI claimants in the New Jersey UI Reemployment Demonstration Project.

An example of a characteristic screen would be a claimant's recall status: anyone who did not have a definite recall date would be included in the profiling process, while those that had a recall date would be screened out of the process (see discussion of recall status on page 8, "Key Data Elements Associated with UI Benefit Exhaustion").
By applying multiple characteristic screens in some sequential order to the UI claimant population, a group of claimants who need reemployment services can be identified. That is, a set of screens can be applied, one at a time, until an appropriate group of claimants is identified. Those claimants selected through this profiling process would be individuals who met all of the various screening criteria. If a State decides to use a characteristic screen approach, it must use at least one data element related to permanent separation (e.g., recall status) and at least one data element associated with the likelihood of long-term unemployment (e.g., job tenure, occupation, industry, education, and State total unemployment rate).

The Department advocates the use of a statistical model utilizing State-specific data for profiling UI claimants because of the advantages of a statistical model compared to those of characteristic screens. Especially important is that the use of a statistical model can assist States in matching the flow of dislocated UI claimants to available reemployment services. Although some States may not be able to implement a statistical model, all States should explore the feasibility of implementing a statistical model. DOL recommends that States establish the use of a statistical model as a goal in implementing their worker profiling and reemployment services systems.

States have the following alternatives in developing a UI claimant profiling system:

1. develop their own statistical model;
2. use the DOL-developed model with variations based on State-specific data and experience; or
3. use characteristic screens.


DOL plans to use a phased approach in the nationwide implementation of the profiling initiative in order to maximize the effectiveness of available funds and to allocate technical assistance resources equitably. The phased approach will involve three stages of implementation: profiling and reemployment services systems will first be developed in three prototype states, then in a "first wave" of states and finally in "second wave" states.

1. Prototype: Three States will be selected from among those submitting proposals to become prototype States. The three prototype States will be funded in FY 1994 with
plans developed for implementation by October 1, 1994.

(2) **First Wave**: An additional 17-25 States will be selected from among all States submitting implementation proposals. First Wave States will be funded in late FY 1994.

(3) **Second Wave**: The remaining States will be funded in early FY 1995.

States interested in being prototypes should submit profiling and reemployment services implementation proposals as specified in this FN to their RO by May 6, 1994. In addition to FY 1994 funding, prototype States will be offered technical assistance in the following areas:

(1) profiling system design and development;

(2) ADP systems design;

(3) the internal processes needed to establish profiling operations; and

(4) design and development of effective reemployment assistance for JI claimants referred to reemployment services through profiling.

States not submitting Prototype State proposals are required to submit profiling implementation proposals to their respective RO by June 20, 1994 for first or second wave implementation. From among these State proposals, and based upon the evaluation factors specified in section 13, "National Office Proposal Review Procedures", DOL will select the first wave States. First wave States will also receive technical assistance in the same areas as the prototype States. States should indicate their preference to be a first wave or a second wave state. DOL anticipates that second wave States will also receive funding and technical assistance.

8. **Prototype States**

The main purpose of first implementing three prototype states is to learn how to best establish profiling mechanisms in different State operational environments. To understand the process of profiling and reemployment service system implementation, information will be gathered and analyzed about the implementation process of these States. The lessons learned will be shared with all States to provide guidance about best practices.

The prototype States will also be used to gather data for the evaluation of the profiling/reemployment services system that
is due to the Congress in November 1996. The prototype States will play a major role in this evaluation because long timeframes needed to implement both the profiling mechanism and the reemployment services limit the use of information from the other States about the performance of reemployment services. As a result, the prototype State data will provide valuable information about both the profiling mechanism itself and the provision of reemployment services for the DOL evaluation.

Finally, data gathered on the provision of reemployment services to profiled workers in the prototype States will be used to analyze the outcomes of this system and service levels provided and to use this data to understand what goals the system can be expected to achieve.

Prototype States will be selected on the basis of:

a) their interest in and ability to establish a quality system of profiling and reemployment services;

b) the speed with which they can implement this system;

c) their willingness to collect data and share information with the other states; and

d) their willingness to commit their own resources to providing reemployment services in PY 1994. (See section 10.b. on funding of reemployment services.)

In addition, the criteria in section 13 will also be used for the prototype States, as well as all other States.

9. Technical Assistance

To support the Secretary's initiatives and to address State automation resource constraints, DOL has announced plans for the development of an Information Technology Center (ITC). One of the goals of the ITC is to provide data processing technical assistance to States in the development and implementation of profiling and reemployment services systems. Technical assistance will also be available from the DOL national office and regional offices -- from the various employment and training components.

States that anticipate a need for technical assistance in designing, developing and implementing profiling and reemployment services systems must include a discussion of their needs in their proposals. To assist ETA to meet States' requirements in this area for providing technical assistance, States must indicate in their proposals' implementation
schedules the stage at which they foresee a need for technical assistance and the type of assistance needed beyond that available from their own resources.

10. Funding Policies and Guidelines:

a. Profiling. The UI system will provide funding support to the profiling effort: both to initial implementation and for on-going administrative support. For both initial implementation and on-going operations UI funds can be used to pay for the basic profiling mechanism (identification, selection, referral, and the UI portion of feedback) as well as continuing eligibility activities in the orientation portion of reemployment services—if not completed during profiling—but not for other reemployment services.

(1) Initial Implementation Funding: Profiling funds provided by DOL in FY 1994 and anticipated for FY 1995 are intended to finance one-time outlays necessary to implement the State’s profiling portion of the profiling and reemployment services system. (The Department has $9 million available in FY 1994, and the President has requested $9 million more in FY 1995.) Examples of implementation costs which can be covered include:

(a) activities associated with system development for the collection of the data elements described in section 5, "Key Data Elements Associated with UI Benefits Exhaustion" and data entry of these elements;

(b) additional staff time to design new forms or redesign existing forms and associated costs to reprint the forms, distribute them and train staff in their use;

(c) reprogramming costs of UI databases;

(d) staff or contractor support to design and implement profiling procedures, and;

(e) ADP hardware acquisitions, such as additional storage devices, directly associated with profiling. The FY 1994 UI profiling funds currently available may not be used for the development or modification of reemployment services.

The FY 1994 funds will be provided to the three prototype States and the first wave States. The amount of funding provided will depend upon costs identified in the State’s proposal, the State’s level of automation, complexity of implementation, and estimated number of UI claimants to
be profiled. DOL estimates that about $400,000 will be available to each prototype and first wave State. Funds to support implementation costs for the remaining States (the "second wave") are included in the President’s FY 1995 budget request.

(2) UI Ongoing Administrative Funding: Annual UI administrative grants will be available for profiling administrative costs, consisting of those associated with the basic profiling mechanism (identification, selection, referral and the UI portion of profiling feedback); provision of continuing eligibility information during the initial profiling and, if applicable, during the provision of reemployment services; and postage and/or telecommunications directly attributable to profiling operations.

b. Reemployment Services. State profiling and reemployment services systems that are implemented in accordance with PL 103-152 are not intended to substitute for services such as those currently provided by the Employment Service (ES) and the Economic Dislocation and Worker Adjustment Assistance (EDWAA) programs in the States, including those offered to any claimant in need of services and/or requesting services; rather, the profiling and reemployment services system may complement existing services within the State.

Governor’s Role: State-wide Strategy. A comprehensive State-wide strategy coordinated by the Governor shall be developed for delivery of quality reemployment services to appropriately referred UI claimants. In developing a coordinated approach, employment and training providers—that is, ES, EDWAA and, where applicable, One Stop—must determine methods of administration to ensure the consistent delivery of services to UI claimants. In order to facilitate this coordination, the Governor may wish to utilize the State Job Training Coordinating Council or State Human Resource Investment Council, as applicable, to assist in the planning process.

Basic Funding Arrangement. Funding for reemployment services for referred UI claimants is to be provided initially from the State and substate Economic Dislocated Worker Adjustment Assistance (EDWAA) and Wagner-Peyser (ES) grant programs for all States in FY 1995 and beyond. Other State sources of funding may be used as well. Additional flexibility in the use of reemployment services funding is also provided in Title I of the Reemployment Act of 1994 (HR 4040).

FY 1994 Funding for Prototype States. In addition, only during Program Year (PY) 1994 and only for the prototype States — which are expected to have operational profiling systems by October 1994 — supplemental funding for
reemployment services will be available from the EDWAA National Reserve account, to the extent that formula funds are insufficient to serve the estimated number of UI claimants and to the extent that these EDWAA funds are available.

The exact amount of requested supplementation to provide reemployment services in PY 1994 in the prototype States should be detailed in State proposals. In the proposals, States will need to:

1) identify the total funding that is estimated to be needed in order to provide reemployment services to a stated proportion of profiled UI claimants;

2) outline how much formula funds will be made available from State ES and EDWAA funds; and

3) determine what additional supplemental funds are estimated to be needed to provide these services.

PY 1994 supplemental funds for the prototype states for reemployment services may be used to augment existing funds to deal with: the increased flow of UI claimants into reemployment services; the increased types of reemployment services, and; the increased quantity and enhanced quality of reemployment services.

Other Conditions. Reemployment services to referred UI claimants should be based on a "Service Plan" developed for each referred UI claimant. Available services are to include those services outlined in Attachment E, "Worker Profiling and Reemployment Services Initiative - Basic Operational Concepts".

Funds provided for implementation of the UI claimant profiling and reemployment services system are for the express purpose presented in the State's proposal as approved, including any clarifications submitted or stipulations made by DOL.

States submitting acceptable proposals as Prototype States which are not funded will receive priority consideration for funding as First Wave States.

Cooperative agreements will be signed among NO staff, RO grant officers, and each State; they will be used to provide implementation funding to States submitting acceptable proposals. The terms and conditions of funding will be included in each cooperative agreement.

11. Proposal Format and Instructions. Proposals from all States shall be submitted through ROs in accordance with the proposal outline and instructions contained in Attachment A.
States shall submit a paginated comprehensive profiling and reemployment services system proposal (original and four unbound copies). For States submitting prototype proposals, priority consideration will be given to those States whose UI laws contain appropriate provisions regarding continuing eligibility, or that can provide assurance that their State laws allow them to mandate participation in reemployment services as set forth in PL 103-152.

Since profiling and reemployment services systems will involve the integration and coordination of UI, ES, EDWAA service delivery systems and, where applicable, One Stop Career Centers functions, the proposal must be signed by the State official responsible for all of these programs or be jointly signed by the officials responsible for each of these programs where more than one agency/official is involved.

12. Regional Office Review Procedures. Recognizing that the successful implementation of profiling and reemployment services requires multi-program cooperation and coordination, appropriate RO program staff shall review proposals using the procedures contained in this issuance. ROs should use the format provided in (Attachment B) of the Regional Office Attachment to State Proposal.

ROs must make substantive comments on the proposals, especially the overall quality and feasibility of the State’s proposed profiling system operational design, the ability of the State to implement the system within the established implementation date, and an assessment of the State’s reemployment services plan. ROs shall also provide comments about the extent to which the State proposal represents a coordinated and integrated plan among State UI, ES and EDWAA organizations.

Focus should be placed on the selection criteria that the National Office will use to evaluate proposals. If necessary, ROs should work with the States prior to submittal of proposals to the NO to clarify or correct problems with proposal formats to ensure technical sufficiency, completeness, and timeliness.

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1 SESAs are requested to also submit their proposals on a computer diskette in WordPerfect 5.1 in the DOS environment. ASCII and Microsoft Word are also acceptable formats. Guidelines to be used when submitting proposals in WordPerfect are: (1) use the table feature instead of columns; (2) tie any graphics to character, rather than paragraphs; and (3) use the WordPerfect table of contents feature to build the proposal’s table of contents.
Background and Status of State Prior Profiling Related Projects. The RO should provide input to the extent possible on prior or current profiling projects engaged in by the State, or related projects, including the success and the status of related projects completed or on-going.

13. National Office Proposal Review Procedures. Proposals received timely by DOL will be evaluated by a panel composed of NO staff from ETA component organizations and at least one RO representative. The panel will recommend for funding only well-documented and justified projects. Selection criteria used by the NO panel will be as follows:

(1) Overall quality of the State's proposed profiling and reemployment services system operational design and the State's ability to implement the system within the established implementation dates.

(2) Technical approach to the profiling components of identification, selection and referral, and feedback.

(3) A comprehensive State-wide strategy for delivery of quality reemployment services to referred UI claimants, including types and quantity of services.

(4) Proposed linkages and structures within the State that demonstrate an integrated and comprehensive approach to profiling, the provision of reemployment services and feedback, and the integration of new reemployment concepts, such as One Stop Career Centers, into the overall State proposal.

(5) Documented cost estimates for implementing profiling.

Any need for additional clarification of a State proposal will be coordinated by the NO through the ROs. Upon completion of the proposal review, the panel will make its funding recommendations; once funding has been announced, the ROs will notify the States and confirm utilization of the funds as proposed or modified, and cooperative agreements will be signed. ROs should report any potential problems pertaining to the obligation or use of profiling funds to the NO as soon as possible so that timely adjustments can be made.

14. Action Required. Regional Administrators are requested to:

a. Advise the Governors of their roles in planning and coordinating the delivery of reemployment services to referred UI claimants.

b. Provide the information contained in this FM and
attachments to all State employment and training
compONENTS (SESAs, JTPA, and EDWAA) for appropriate
action. Especially important is the need for all states
to understand the requirement to develop and submit a
profiling implementation proposal that meets the
provisions of PL 103-152 and which represents an
integrated and coordinated effort among the State
Agencies responsible for unemployment insurance,
employment service and dislocated worker programs.

c. Inform States that additional guidance relating to
profiling operations will be forthcoming. This
additional information will include policies concerning
reporting requirements, adjudication of issues, potential
exemption from participation in reemployment services and
appeals.

d. Establish a Regional team of appropriate program
representatives to review each proposal and prepare
collaborated Regional Office comments. Establish
procedures to ensure due dates are met. State proposals
should be received by the RO in sufficient time to allow
for RO review and preparation of RO comments.

e. As soon as possible after States are informed of the
information in this FM, ascertain which States plan to
submit prototype proposals and inform the NO.

f. Transmit the original and three unbound copies of each
proposal, with comments and a recommendation for each
proposal, and all pertinent information to the NO, ATTN:
TEUMC. Prototype State proposals must be postmarked to
the NO not later than May 13, 1994. ALL OTHER proposals
must be postmarked to the NO not later than July 8, 1994.

g. Coordinate with the NO in concluding cooperative
agreements with each State that is selected for
implementation funding.

h. Monitor State implementation of UI claimant profiling
and reemployment services systems, provide technical
assistance; and provide quarterly reports to the NO
(ATTN: TEUMC) on States’ progress in implementing
profiling.

Guidance for Regional monitoring and technical assistance
responsibilities will be forthcoming. It is anticipated that
the National Office and the Regional Offices will work
togther to develop Regional monitoring guidelines.

15. Inquiries. Direct UI-related questions to Ingrid Evans
at 202-219-5922 and Wayne Zajac 202-219-5616; questions
related to ES/One Stop Career Centers should be directed to David Balducchi at 202-219-5257; and questions related to EDWAA/dislocated workers programs to Brian Deaton at 202-219-5306.
16. **Attachments.**

Attachment A - PROFILING PROPOSAL OUTLINE
Attachment B - REGIONAL OFFICE ATTACHMENT TO STATE PROPOSAL
Attachment C - DEFINITIONS
Attachment D - BUDGET AND COSTS/SOURCES OF FUNDS
Attachment E - WORKER PROFILING AND REEMPLOYMENT SERVICES INITIATIVE - BASIC OPERATIONAL CONCEPTS
PROFILING PROPOSAL OUTLINE

A. Profiling Project Summary.

1. Proposal Title.

2. Type of Proposal. Identify whether the proposal is a prototype; if not a prototype proposal, a preference for being a first wave State or second wave State should be indicated.

3. Total Dollars Requested. Implementation Costs (up to $400,000 for each prototype and first wave States is available).

4. Executive Summary. Include an Executive Summary which describes the proposal and provides an overall concise view of the State's profiling proposal. It should include sufficient descriptive information to demonstrate how the essential concepts of the profiling and reemployment services system will become operational in the State.

B. Goals, Objectives, and Schedules. Describe the goals and objectives of the project. The description should include how the identification and referral of claimants will be accomplished by not later than the end of the fifth week following the week during which the UI claim is filed and how timely, comprehensive and intensive reemployment services will be provided.

The proposal should also contain a schedule of activities from the beginning of the project to operational implementation. States should indicate why the dates in their schedule of activities are reasonable to provide a quality product and are reasonable to adhere to the substantive requirements of P.L. 103-152. Activities should be shown in operational work segments with time lines for each segment containing starting and ending dates.

C. Goods and/or Services Requested.

1. Staff Needs. Identify one-time staff in addition to base staff and any contract staff needs. If contract staff are requested for any portion of the proposal, the State should supply documentation describing the work to be performed and the estimated costs of such work. Any additional training required for State staff, (i.e., coding of claimants' occupations) should be described and estimated costs identified.
2. **Software.** Identify any additional software required for the implementation of the proposed State profiling system. The functions and use of the software should be explained.

3. **Hardware.** Address any specific hardware purchases that are necessary to implement profiling and which are included as a part of the proposal. Sufficient information should be included to justify the reason for requesting the specific quantity and capacity of equipment proposed.

4. **Technical Assistance.** Address any anticipated needs for technical assistance as described in page 19 section 8, "Technical Assistance".

D. **Operational Design of the Proposed Profiling and Reemployment Services System.**

(Reference: Attachment E, "Worker Profiling and Reemployment Services Initiative - Basic Operational Concepts")

1. **Overview.** The description of the operational design of the proposed profiling and reemployment services system must address each of the major profiling components: identification, selection, referral, reemployment services and feedback. A flow chart of the processes should be included.

2. **Identification.** Describe the process by which all UI claimants establishing a new benefit year and who have been issued a first payment for regular benefits will be identified as needing reemployment services. Identify what data associated with dislocation will be collected (Note: certain elements may not be used; see page 12, "Prohibited Data Elements"), when and how. Describe and show the detailed claimant and data flow through the identification phase. Address any special categories of UI claimants, such as veterans. Identify and describe systems and programming changes necessary for the identification process.

3. **Selection.** Explain how and when (i.e., weekly, bi-weekly) identified UI claimants will be selected for referral to re-employment services. Describe the proposed frequency of selection. State whether a state-adapted version of DOL’s model will be used or whether another method will be chosen.

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2 Intersectate claimants may be excluded by program type during initial implementation of a State’s profiling system. In the future, after initial implementation and analysis of system requirements of States and the INTERNET system, Interstate claimants will be included in UI profiling systems. State profiling proposals need not address Interstate claimants.
If the use of a statistical model other than an adapted
version of the DOL model is contemplated, provide plans for
the model's development (including discussion of data
elements) and operation, as well as any available information
relating to the model's statistical validity and accuracy in
predicting exhaustion of UI benefits. If characteristic
screens are contemplated, describe the specific screens to be
used, present any studies and analysis supporting the use of
the characteristic variables and information on the accuracy
of the proposed screen in predicting the exhaustion of UI
benefits. Show data inputs and linkages to other databases as
appropriate and describe how these databases will be accessed.
Identify and describe systems and programming changes
necessary.

4. Referral. Describe when and how referral of selected
UI claimants to reemployment services will be accomplished, to
whom referral will be made (i.e., the agency or organization),
the referral media and the frequency of referral. Describe
how imbalances between the demand for reemployment services
and the availability of those reemployment services will be
identified and resolved between UI and service providers.
Identify and describe systems and programming changes
necessary.

5. Reemployment Services.

a. Reemployment services for profiled UI claimants should
be timely, customized, comprehensive, structured and
sequential. Describe what services will be available to
referred UI claimants in terms of the types of services
(assessment, counseling, testing and job search activities)
and their possible range of intensity. For example,
assessment should be described in terms of the type of
assessment techniques and testing instruments that may be
used, and a job search workshop should be described in
terms such as what subjects are covered and the number of
hours or days needed to complete. Estimates of the number
of UI claimants flowing to and through the various
reemployment services should be shown. Show estimated
claimant and data flows during the provision of
reemployment services, including decision points. Describe
plans and methods for controlling and regulating the flow
of profiled workers into reemployment services and the
resulting estimate of the annual proportion of profiled UI
claimants who will be served, initially and over time.

b. Explain and describe linkages with other agencies, such
as the State's Employment Service, State and substate EDWAA
service providers or One Stop Career Centers, where
applicable, and the roles and relationships involved with
each. Data and system linkages should also be completely described and documentation provided which shows current systems and proposed data/system changes.

c. Describe the State’s proposed method of ensuring delivery of quality reemployment services to profiled UI claimants, and how the availability of services will be maintained on an annual and seasonal basis. In addition, describe how the adequacy of the quality and quantity of reemployment services will be evaluated, e.g., customer surveys, administrative data collection and analysis.

d. Specify how much of the State’s current resources in ES and EDWAA are to be dedicated to reemployment services for dislocated workers referred as a result of profiling in the areas of assessing, counseling, testing and job search activities (including job search workshop).

e. For prototype states and for FY 1994 only, describe in detail the State’s request for supplemental resources. Requests for supplemental funds shall include a description of the increased flow of UI claimants into reemployment services and/or for the increased intensity of reemployment services. Proposals requesting supplemental funds to support reemployment service activities shall indicate assurance that supplemental funds will not substitute for existing reemployment resources dedicated to dislocated workers.


a. Feedback from service providers is necessary at several steps in the profiling and reemployment services system. One main purpose of feedback is providing the means to ascertain the claimant’s enrollment into reemployment services and satisfactory participation as required by P.L. 103-152. Other important objectives of feedback are to obtain information on services provided to referred claimants and the employment outcomes of those referred claimants who received reemployment services.

b. The feedback system must be able to answer the following types of questions:

(1) Did the referred claimant report to the service provider as required?

(2) Was the referred claimant enrolled in reemployment services and what services are planned to be provided to the claimant?

(3) Is the claimant participating satisfactorily

79.
according to the Service Plan?

(4) Did the claimant complete services and which services were completed?

(5) What were the employment outcomes?

The proposed feedback mechanism should be described in detail and include claimant and data flow diagrams. Explain what data will be collected, at what points feedback will occur and how the feedback information will be provided to UI for continuing UI benefit eligibility purposes as well as for feedback on services provided to referred claimants. If surveys or micro databases are contemplated for the employment outcomes portion of the feedback component, describe in detail, including methodology and frequency.

E. Supporting Materials. States should attach supporting materials that describe existing systems and proposed enhancements or changes. Examples of supporting materials include: claimant and systems flow charts; data element definitions; data and data analyses from baseline studies; record layouts; and results of any analysis relating to statistical models being proposed for the State’s profiling system. In addition, if the State currently uses profiling techniques, a description of the system should be included as supporting material.
DATE:

REGIONAL OFFICE ATTACHMENT TO STATE PROPOSAL

REGION:

REGIONAL CONTACT: ____________________________________________
(Name and Telephone Number)

STATE:

TYPE (Prototype; Preference for First or Second Wave):

PROPOSAL TITLE:

PROPOSAL AMOUNT:

STATE CONTACT: ____________________________________________
(Name and Telephone Number)

BACKGROUND AND STATUS OF SESA’s PRIOR PROFILING RELATED
PROJECTS: (use separate sheet if needed)

REGIONAL OFFICE COMMENTS:
DEFINITIONS

Characteristic screens - a profiling methodology which uses each profiling data element as an exclusion variable—yes or no, in or out—to identify individual claimants either into or out of the target group selected as permanently separated and likely to exhaust UI benefits or become long-term unemployed.

Dislocated worker - an individual who has been permanently laid off from employment, is both eligible for and likely to exhaust their entitlement to unemployment compensation, is unlikely to return to their previous industry or occupation, and will need reemployment assistance to successfully transition to new employment.

Early intervention - identification, selection, and referral of UI claimants who are dislocated workers to reemployment services early in such worker’s benefit year, i.e., no later than the end of the fifth week from an eligible (monetarily and nonmonetarily) claimant’s initial claim date.

Education - The level of schooling completed by a claimant. One of the variables to which a value is assigned in the Department’s profiling model.

Employment outcomes - The employment status of profiled claimants at specified time after receipt of reemployment services; employment outcomes may include (but are not limited to) information on duration and incidence of unemployment, entry into new employment, wages and earnings on the new job, continued employment and similar factors.

Feedback - Information required to be provided to the UI program from service providers regarding (1) services received by referred claimants, (2) the employment outcomes for such claimants, and (3) any issues that may affect continuing eligibility for UI benefits.

First wave States - Those States other than the prototype States that are selected to implement profiling and reemployment services systems with FY 1994 funds.

Follow-up information - Data provided from service providers to the UI program through the feedback process (language used in PL 103-152); see feedback.

Industry (claimant’s) - The standard industry code (SIC) of the claimant’s primary former employer. One of the variables to which a value is assigned in the Department’s profiling
model.

Job tenure - The period of time, measured in years, during which a claimant worked for his/her former employer. This could be either the claimant’s separating employer or their primary employer over a specified time period. One of the variables used in the Department’s profiling model.

Job search assistance services - Language used in PL 103-152 to describe an example of services provided to claimants referred via profiling; see Attachment E, "Dislocated Worker Profiling Initiative - Basic Operational Concepts".

Justifiable cause - Approved reasons (State or federal) for claimants’ failure to participate in reemployment services.

Mandatory participation - PL 103-152 requires that, as a condition of continuing eligibility for UI benefits, claimants who have been referred to reemployment services via profiling must participate in such services unless excused by the State. For purposes of this participation requirement, such reemployment services do not include skill training or education services.

Model profiling system - The profiling system developed by DOL and offered to States (see Attachment E); or State-designed systems identified by DOL as meeting the requirements of PL 103-152 and recommended for export to other States.

New claimant - Any individual establishing a new UI benefit year; includes all regular UI programs such as intrastate, UCPE, UCX; excludes all extended benefits programs, TRA, and DUA.

Occupation (claimant’s) - The major group for the claimant’s primary former occupation. One of the variables to which a value is assigned in the Department’s profiling model.

Permanently separated - Claimants who, at the time of filing an initial claim for regular UI, are classified as not expected to be recalled by the separating (or primary) employer.

Prototype states - Those lead States (three) selected by the Department for the first stage of the nationwide implementation of State profiling and reemployment service systems, using FY 1994 funds.

Profiling - A systematic procedure used to identify UI claimants who, because of certain characteristics, are determined to be permanently separated and most likely to exhaust regular UI benefits. Such claimants are then eligible
for referral to reemployment services.

Recall status - Whether or not a claimant is expected to be recalled to work with their separating employer. The Department's profiling model uses this variable to screen out those claimants who have firm prospects of returning to a former employer.

Reemployment services - See Attachment E, "Dislocated Worker Profiling Initiative - Basic Operational Concepts".

Referral agreement - The coordinated and ongoing interaction between the UI component and service providers in the referral of UI claimants to a set of quality reemployment services consistent with the supply of reemployment services and the demand for such services by referred UI claimants.

Referred claimant - A claimant who, as a result of being profiled, has been identified as a dislocated worker, and selected and asked to report to a reemployment service provider.

Second Wave States - Those States that will implement the profiling initiative using requested FY 1995 funding.

Service plan - A compact (agreement) between the referred UI claimant and the service provider for participation in a set of customized reemployment services. It may also serve as the primary feedback mechanism for providing the UI component with information on reemployment services scheduled and received by each referred claimant and their employment outcomes -- and as a basis for determining the claimant's satisfactory participation for purposes of continuing eligibility for UI benefits.

Statistical model - A profiling methodology that uses a set of variables (e.g., education level) in combination simultaneously. In this method, each data element receives a weight (known as a "coefficient") that has been established by a statistical process. These elements are then combined in an equation that generates a weighted average of all the claimant's characteristics combined, which ranks claimants in terms of their probability of benefit exhaustion/long-term unemployment.

UI exhaustee - Claimant who has received all compensation payable for a benefit year. (For additional specificity, refer to 20 CFR, Chapter V, Section 615.5.)

Union hiring hall agreement - Whether or not a claimant is a member of a union that maintains a union hiring hall (these are often called "full-referral unions"). The Department's
profiling model uses this variable to screen out claimants who are members of such unions have because they have alternative, union-sponsored, job search resources and thus do not need the reemployment services provided through the profiling and reemployment services system.
BUDGET and COSTS/SOURCES OF FUNDS

States should use Standard Form (SF) 424, 424A and 424B to request profiling implementation funds. Instructions for completion of these forms may be found in Chapter II - Reporting, ET Handbook No. 336, 10th Edition, State Agency Program and Budget Plans (PBP) for Unemployment Insurance (UI) Operations, Fiscal Year 1994.

On SF 424A, Section A-Budget Summary, under Column (a) Grant Program Function or Activity, use the following categories:

1. Implementation
2. Reemployment Services

This same category should also be used in Section B-Budget Categories, Grant Program Function or Activity:

1. Column (1) Implementation
2. Column (2) Reemployment Services

In Section C - Non-Federal Resources, use the above category for lines 8 and 9 under the Grant Program column.

line 8. Implementation Costs
line 9. Reemployment Services

States should use actual staff costs in formulating overall cost estimates for the implementation and/or reemployment services components of profiling.
WORKER PROFILING AND REEMPLOYMENT SERVICES INITIATIVE

Basic Operational Concepts

Amendments to the Social Security Act contained in P.L. 103-152 require that UI claimants who are identified through profiling systems as likely to exhaust benefits and who are in need of reemployment services to transition to new employment participate in reemployment services, such as job search assistance. DOL envisions that profiling of UI claimants will be a primary way that dislocated workers enter the new comprehensive reemployment system proposed under the Reemployment Act of 1994. Linkages between the UI, ES and EDWAA components (and later One-Stop Career Centers) are essential in order to implement and operate the worker profiling and reemployment services system.

Major areas of linkages are in the processes involving:

- Identification of those UI claimants who are to be selected and referred to reemployment services.
- Selection and referral of UI claimants to reemployment services.
- Provision of reemployment services to those referred UI claimants.
- The feedback systems needed to provide information on service participation, services provided and employment outcomes.

Identification

A basic and first objective of a UI profiling and reemployment services system is to identify those claimants likely to exhaust benefits, have difficulty finding reemployment and who could benefit from reemployment services. Moreover, identification of this group of claimants early in their unemployment spell is important so that they can receive the needed services as soon as possible. Early intervention increases the likelihood of more rapid reemployment. Identification works as follows:

First: Data elements (see list below) needed for profiling purposes are collected from claimants during the initial claims and/or work registration process and are entered into a computer database that will be used to profile
Second: Additional data elements needed for profiling from the State Labor Market Information (LMI) system, i.e., industry and occupation employment changes, area unemployment rates) are also entered into the computer database.

Third: The first steps involve identifying those claimants who are actually eligible for unemployment benefits. Therefore, claimants who are either monetarily ineligible or nonmonetarily disqualified are excluded. This means that claimants must have been issued a first payment in order to be profiled. Similarly, claimants filing partial claims are excluded because they are labor force attached. Interstate claimants will also be excluded, until the Interstate Benefits system can be examined to determine how interstate benefit (IB) claimants can be included.

Fourth: Claimants who have been issued a first payment are then profiled using a two-step approach. First, claimants who are on recall or who use a union hiring hall are excluded. Second, the remaining claimants are either assigned a probability of dislocation through a statistical model process or additional characteristic screens are used to identify the appropriate claimants.

The following worker characteristics were found to be significantly associated with UI exhaustion in DOL's examinations of worker dislocation. These elements should be used to identify claimants who are likely to exhaust benefits and who need reemployment services.

a. **Education:** Educational level is closely associated with reemployment difficulty. Generally, claimants with less education are more likely to exhaust benefits than claimants with higher educational levels.

b. **Job Tenure:** This is a measure of a worker's attachment to a specific employer. Studies show that the longer a worker's specific job attachment, the more difficult it is to find equivalent employment elsewhere.

c. **Former Industry:** A claimant's search for employment is affected by the former industry of employment. Claimants who worked in industries that are declining, relative to others in the State, experience greater difficulty in
obtaining new employment than claimants who worked in expanding industries.

d. Occupation: Workers in low demand occupations experience greater reemployment difficulty than workers in occupations with higher demand.

e. Unemployment Rate: Dislocation and reemployment difficulty are closely related to economic conditions, as measured by unemployment rates. In areas with high unemployment, unemployed workers will have greater difficulty becoming reemployed than those workers in areas with low unemployment, even if all other conditions are equal.

Information about claimant characteristics will, in most States, require that the data be collected when an initial claim is filed since most elements pertain to the individual claimant and are only known by the claimant. In other States, the data may be accessible from other sources and would not be collected at the point of initial claims filing. Education level, for example, is a data element that will be mostly likely be collected from the claimant. In some States, this element may be readily available from the Employment Service and may not need to be collected from the claimant at the initial claim filing point.

All UI claimants who establish a new benefit year and who are issued a first payment for regular benefits will be profiled to identify whether they are likely to exhaust unemployment benefits. This means that all such claimants will be profiled, irrespective of whether they are in receipt of reemployment services prior to issuance of a first payment for regular benefits.

In cases where claimants are in receipt of such services prior to a first payment, the State agency must determine whether the claimant is to be referred to a service provider or is to be exempted from the mandatory reemployment services participation requirement. If the State determines not to exempt, profiled claimants who are currently receiving reemployment services will be referred back to the Service Provider with whom they are attached. Profiling of all claimants who have been issued a first payment is necessary to ensure the early identification of such workers and to ensure equitable treatment among UI claimants.

Links to other sources of data, such as industry and unemployment rates, must be established by the States in order to use these elements in profiling systems. Labor Market Information (LMI) systems will be the source of this data. LMI sources thus constitute a part of an overall Profiling and Reemployment Services System.
First: Profiling will occur on a weekly or bi-weekly basis. All new initial claimants who have been issued a first benefit payment will have been profiled; those that pass the profiling "screening mechanism" will be selected and be ready to be referred. The screening mechanism will result in each worker either being assigned a probability of exhaustion from a statistical model or a "pass" in a pass/fail binary test from an exclusion (characteristic) model.

Second: Each Service Provider, or a coordinating organization, would then discuss with the UI component the number of claimants profiled who are in need of reemployment services and the number that can be served in a given period. An agreement is then reached on the number of claimants to be referred to specific Service Providers. Thus, a sense of overall demand is known, and this demand is balanced against Service Provider capacity. The time period for this referral agreement would probably vary depending upon local conditions.

Third: Referral of profiled workers initially will be to ES and/or EDWA -- or their successor organizations under the proposed Reemployment Act of 1994 (H.R. 4040), or to other qualified providers of reemployment services under other Federal or State programs. Referral will be to a specific Service Provider office. Thus, the referral process is not just a single statewide system, but may be multiple local systems. Because UI local office service areas do not necessarily correspond to the Service Providers service areas, the Profiling and Reemployment Services System within the State must establish mechanisms by which identified profiled workers from each UI local office will be referred to specific Service Provider offices.

The UI component would notify the selected claimants of their identification as likely UI exhaustees, officially inform them of their obligations under the law to participate in reemployment services and tell them when and where to report for the Orientation session. Concurrently, the UI component would inform each Service Provider of the selection of individual claimants and the reporting instructions given to each selected claimant.
Selection and Referral

Profiling alone—that is, the mere identification of UI claimants likely to exhaust benefits and need reemployment services—does not help the claimant. It must be tied and linked to reemployment services so that a profiling and reemployment services system is forged. Goals of the system are: to identify the right workers, at the right time (early), to send them to the right place (Service Provider office), and in the right numbers (balancing demand for and supply of reemployment services). A Profiling and Reemployment Services System is the combined responsibility of UI and Service Provider organizations. The role of ETA is to provide resources, guidance and technical assistance to this effort, but successful implementation will depend heavily on cooperative state and local relationships. The Governor is responsible for the coordination of reemployment services.

Profiling is a screening subsystem—operated by UI agencies—which identifies a large number of potential UI exhaustees. Since the number of likely exhaustees will greatly exceed the capacity of the suppliers of services, a mechanism needs to be developed to balance the demand for and supply of services. This balance can best be achieved through coordination between the UI component and reemployment Service Providers. This coordination should result in a "referral agreement," which represents the coordinated and ongoing interaction between UI components and Service Providers in the referral of UI claimants to a set of quality reemployment services. Such coordination or linkage means that there may be no need to exempt selected claimants from participation in reemployment services due to capacity constraints. Exemption is based upon data gathered about the referred workers' circumstances, such as factors indicating that they are not in need of services or have recently received reemployment services.

Service capacity will depend on a number of factors, but two critical ones will be staff capacity and allocated annual funding. Qualified counselors will be needed in sufficient numbers by Service Providers to serve the large number of UI claimants that will be referred to reemployment services through profiling.

Profiling claimants and providing reemployment services is a complex process. It cannot be implemented at the national level, but can only be facilitated. Planning must occur at the State and sub-State level and must be done by the UI and Service Provider components jointly planning and operating together as a team.

Selection and Referral processes could work in practice as described below:
below. It should be noted that actual operational practices would vary from State-to-State.

First: UI claimants selected through State UI profiling systems will be required by the UI component to report to the Service Provider coordinated by the State for an Orientation on reemployment services available in their local labor market area.

An Orientation session should include six basic tasks: (1) recording attendance; (2) explaining the program of reemployment services; (3) determining and recording information about the claimant’s previous reemployment services experiences, if any; (4) identifying any claimants who appear to have been erroneously referred, e.g., the claimant has a recall to work notice or has completed similar services; (5) scheduling appropriately referred claimants for an Assessment; and (6) informing the UI component of the results of the Orientation session.

Information that the Service Provider would need to feedback to the UI component resulting from the Orientation would include: (1) attendance information; (2) the Orientation outcome of each claimant who attended, e.g. scheduled for assessment; and (3) any issues that require UI attention, such as those claimants who did not attend or who appear to be have been erroneously referred.

Orientation is the primary responsibility of the Service Provider. However, depending on the local situation, States may choose to have the UI component participate.

P.L. 103-152 contains provision for exempting claimants from participating in reemployment services if the claimants have "justifiable cause" or have completed "similar services." These are two additional areas in which the UI and Service Provider components will need to establish common understandings and operating procedures.

Second: Following this initial Orientation, the Service Provider will focus first on determining the specific needs of each worker through an assessment process, which may include
Continuing eligibility for unemployment benefits is the responsibility of the UI component.

Fourth: Thus, the Profiling subsystem needs to select the number of people each week who can be served, consistent with the referral agreement. In a State using a statistical model, that will mean that profiled and selected workers will be arrayed by probability and by local office. For each local office, the selected individuals will be arrayed from high to low probability; if the Service Provider has the capacity for only 26 referrals per week, for example, then the 26 selectees with the highest probabilities will be selected. In a State using a characteristic screen system, all selectees will be arrayed, by local office, by SSN. However, since all Selectees have the "same probability" of being dislocated, for equity purposes, they must be referred on a random basis. For each local office, selectees will be arrayed by SSN. If 32 referrals result from the UI-Service Provider dialogue, a random number generator in the State's profiling system will be set to 32, and will generate 32 referrals to that Service Provider.

Fifth: Some claimants who are profiled may not be selected because of Service Provider capacity constraints. These claimants may be retained in a "selection pool" for several subsequent weeks along with those claimants selected weekly. If the probability values of these non-selected claimants exceeds that of the newly profiled claimants, referral to services may then occur. The length of time to retain claimants in a selection pool may vary depending upon local conditions, but should not exceed four weeks in order to maintain the early intervention objective.

The use of characteristic screening systems may pose more issues than does the use of statistical models. A statistical model results in reemployment services being given to those workers identified as most likely to exhaust and who will have greater difficulty being re-employed. Use of a characteristic model results in all workers who meet profiling screens having the same probability of referral regardless of their probability of exhausting.
vocational testing, use of interest inventories, and a counseling session. Feedback to the UI component would only occur if the claimant did not attend the assessment as scheduled or was further excused.

Third: Based on this assessment process, those claimants who have the skills and experience required to fill job openings that are currently available (e.g., via ALEX) would receive job referrals and the Service Provider would try to arrange an immediate placement. Feedback to UI would occur only if the claimant did not contact the employer or refused a job offer.

Fourth: If referred claimants have skills that are marketable in their local labor market area, but there are no current job openings appropriate for them, they would be required to participate in a program of reemployment services developed jointly by the claimant and the Service Provider, such as a workshop on job search skills.

Fifth: The agreed upon services would be documented in a Service Plan. The Service Plan is the path through reemployment services and becomes the basis for determining satisfactory participation for UI continuing eligibility.

After completion and agreement to the Service Plan by the claimant, the Service Provider would provide this information to the UI component for claims monitoring purposes and for later evaluation purposes. After this step, the Service Provider would only notify the UI component if the individual failed to participate according to their Service Plan. The UI component would then adjudicate the issue based on State UI law. Upon completion of the Service Plan, the Service Provider would provide a notice of completion and Service Plan details to the UI component.

Sixth: Those referred claimants who lack marketable skills (based on the results of the assessment process) would be offered more intensive services, such as education and training programs through an appropriate Service Provider. These workers would receive an exemption, by the UI component based on
below. It should be noted that actual operational practices would vary from State-to-State.

First: UI claimants selected through State UI profiling systems will be required by the UI component to report to the Service Provider coordinated by the State for an Orientation on reemployment services available in their local labor market area.

An Orientation session should include six basic tasks: (1) recording attendance; (2) explaining the program of reemployment services; (3) determining and recording information about the claimant’s previous reemployment services experiences, if any; (4) identifying any claimants who appear to have been erroneously referred, e.g., the claimant has a recall to work notice or has completed similar services; (5) scheduling appropriately referred claimants for an Assessment; and (6) informing the UI component of the results of the Orientation session.

Information that the Service Provider would need to feedback to the UI component resulting from the Orientation would include: (1) attendance information; (2) the Orientation outcome of each claimant who attended, e.g. scheduled for assessment; and (3) any issues that require UI attention, such as those claimants who did not attend or who appear to be have been erroneously referred.

Orientation is the primary responsibility of the Service Provider. However, depending on the local situation, States may choose to have the UI component participate.

P.L. 103-152 contains provision for exempting claimants from participating in reemployment services if the claimants have "justifiable cause" or have completed "similar services." These are two additional areas in which the UI and Service Provider components will need to establish common understandings and operating procedures.

Second: Following this initial Orientation, the Service Provider will focus first on determining the specific needs of each worker through an assessment process, which may include
feedback from the Service Provider, of the reemployment services participation requirement. An exemption is appropriate because participation in occupational or skill training is not required as a condition of UI eligibility under P.L. 103-152. However, claimants who are participating in approved training programs may be relieved of State work search requirements in accordance with State UI law and procedures.

If a claimant, who has been determined to need education or training, elects not to participate in such educational and training programs, other reemployment services, such as job search assistance, must be offered. Failure to participate in training or reemployment services based upon such offers will result in notification to the UI component, and potential issues of continuing eligibility for unemployment benefits may be raised. The basis for such offer of reemployment services is that claimants who are in the most need of services in order to reenter the job market should be provided with job seeking skills.

Seventh: Upon the claimant's satisfactory completion of the set of services described in the Service Plan, the claimant is ready to re-enter the job market. Claimants should now possess enhanced job seeking skills and can better explore job opportunities based upon their existing marketable skills and available job openings. The Service Provider will inform the UI component of each claimant's completion of the Service Plan and results. The UI component will relieve the claimant of the mandatory reemployment services requirement. Based upon State law, the claimant will be informed of the changed requirement and, as applicable, any resumption of the work search requirement.

Feedback Mechanism

As described above, feedback from the Service Provider to the UI component needs to occur at appropriate steps in the process. The State agency is required to collect necessary follow-up information on UI claimants referred to reemployment services through UI profiling systems. The primary component for the feedback system would be the Service Plan -- which acts as a compact between claimants and Service Providers and their commitments to each other.
At a minimum, four types of feedback information will be collected on referred UI claimants:

(1) Verification that referred claimants reported to the Service Provider;

(2) Indication that claimants are actively participating in prescribed reemployment services (Did claimants participate/complete prescribed reemployment services?);

(3) Reemployment services received and completed by each worker; and

(4) Employment outcomes (Did reemployment services lead to reemployment of claimants? if yes, at what wages and when?).

First: Determine whether referred UI claimants have reported to the Service Provider. Otherwise, UI claimants may get referred, but not actually be connected to a Service Provider.

One way to achieve this would be to have all referred UI claimants report to a group Orientation session as described above. It’s also recommended that UI will provide a list of referred claimants to the Service Provider on a continuous and coordinated basis so that the Service Provider will know who has been referred and when they have been scheduled for the Orientation.

Second: The Service Provider transmits information back to UI on the result of the referral (i.e., whether or not the claimant actually attended, and the date of the activity). This information will provide the UI program with feedback on how many referrals made via profiling were successfully completed; it is also necessary information to ensure that the provisions of the law were met for UI eligibility.

Third: Provide the UI program with the information necessary to allow them to accurately determine referred UI claimants continuing eligibility for UI benefits on a weekly basis, including whether these workers are participating in required reemployment services activities (or have received exemptions). The Service Provider will notify the UI component if the
claimant is not participating satisfactorily, per the Service Plan. The claimant attests to satisfactory participation when submitting continued weeks claims certifications; this provides the UI component with the necessary information for benefit payment purposes.

Fourth: Record the types of reemployment services received by referred UI claimants, in order to learn what types of assistance are actually being provided to them and how quickly these services are provided. This information is valuable for operational and evaluation purposes, not only for the UI program, but for Service Providers as well.

Fifth: Determine the employment outcomes of referred UI claimants: whether referred claimants obtained new jobs, when, and if so, at what wage levels. This information may also include collection of employment outcomes information up to a year following reemployment.

The number of possible options for collecting employment outcomes information to the UI program is quite varied. Possible alternatives include: analysis of wage record files; creation of a micro database containing longitudinal benefit and wage history data on a sample of profiled and referred UI claimants; and surveys of claimants who received reemployment services through profiling.
THE PROCESS IN BRIEF

Data elements needed for profiling purposes are collected from claimants during the initial claims and/or work registration process and entered into a computer database that will be used to profile claimants. Necessary LMI data are also entered.

Claimants who have been issued a first payment are then profiled using a two-step approach. Claimants who are on recall or who use a union hiring hall are first excluded. Then, the remaining claimants are either assigned a probability of dislocation through a statistical model process or additional characteristic screens are used to identify the appropriate claimants.

A list of claimants who are potentially eligible for referral to Service Providers is then created by the State's computer system. If a statistical model is used, claimants are ranked, highest to lowest, in order of their probability of exhaustion of benefits. If characteristic screens are used, the result is simply a list of claimants considered likely to exhaust benefits.

The UI component and Service Provider jointly determine the number of profiled UI claimants to be selected and referred. This referral agreement (see Definitions, Attachment C) establishes the number of claimants that should be referred and can actually be provided reemployment services.

The UI component notifies selected claimants that they have been identified as likely dislocated workers and are referred to reemployment services, why reemployment services are being offered, and when and where to report. Claimants will also be informed that continuing eligibility for unemployment benefits is contingent upon the claimant's participation in reemployment services.

Per notification by the UI component, selected claimants report to the designated Service Provider. Concurrently, Service Providers receive notification from the UI component that claimant has been referred.
Service Provider conducts Orientation and notifies UI component that the claimant was/or was not present and whether the claimant was appropriately referred.

The Service Provider conducts an assessment and, in consultation with the claimant, develops an individual Service Plan (see Definitions, Attachment C) which lists those services for which participation is required.

The Claimant participates in reemployment services based upon the Service Plan and continues to submit weekly certifications to UI attesting to her/his continued participation for receipt of benefits.

The Service Provider notifies UI component upon claimant termination or completion of participation in reemployment services based upon the Service Plan.

Upon termination or completion of the Service Plan for any circumstances, the Service Provider furnishes the UI component the Service Plan which contains follow up information relating to the services received by such claimants and, if applicable, employment outcomes.

NOTE: Attached is a flowchart which provides a general description of the basic steps involved in the Worker Profiling and Reemployment Services Initiative.
Worker Profiling and Reemployment Services Initiative
Steps in the Process Using a Statistical Model

UI Office

Rapid Response Team

Initial Claim Taken

Data Collected
- Initial Claim
- Work Registration

Data Entered from Initial Claim and Work Registration Process

Job Tenure
Education
Industry
Occupation
Union Hiring Hall
Recall Status

LMI System
- Employment Change by Industry
- Employment Change by Occupation
- Area Unemployment Rate

Exchange information between UI (number needing services) and Service Provider (capacity).

Referral Agreement

1.1

Yes to Any

Not Profiled

- Union Hall?
- Worker on Recall?

No

Computer Estimates Probability of Long-term Unemployment

Claimants Selected

Claimants Not Selected

Computer Selects Claimants based on Highest Probability and Referral Agreement

List of Referred Claimants to Service Providers

Notice from UI to Claimant

Not Referred

Continued
Worker Profiling and Reemployment Services Initiative
Steps in the Process Using a Statistical Model

Worker Referred to Reemployment Services → Orientation to Available Information and Services → Appropriately Referred?

- YES
  - Testing and Assessment to Identify Areas of Interest, Aptitudes, and Skills
    - Worker Exempted from Participation Requirements
    - NO
      - Does Worker Have Skills/Experience Required for Current Job Openings?
        - YES
          - Worker Exempted from Participation Requirements
        - NO
          - NO
            - Does Worker Have Marketable Skills in Local Labor Market?
              - YES
                - Development of Service Plan
              - NO
                - Feedback Information Provided to UI

3/21/94
Worker Profiling and Reemployment Services Initiative
Steps in the Process Using a Statistical Model

B

> Reemployment Services Provided

Does Worker Obtain Employment?

YES

NO

Review Service Plan and Revise as Needed

Feedback Information Provided to UI
DIRECTIVE : FIELD MEMORANDUM NO. 35-94, Change 1

TO : ALL REGIONAL ADMINISTRATORS

FROM : BARBARA ANN FARMER
Administrator for Regional Management


1. **Purpose.** To issue Supplement No. 1 (Questions and Answers Supplementing FM 35-94).

2. **Background.** Following enactment of P.L. 103-152 and the issuance of FM 35-94, Regions and State partners have raised questions relating to the grant solicitation and implementation of Worker Profiling and Reemployment Services systems. The attached questions and answers (Q’s and A’s) reflects initial inquiries and is issued as a supplement to FM 35-94. An index accompanies the Q’s and A’s and is keyed to the applicable sections of FM 35-94 and attachments.

Additional explanations and interpretations will be issued as needed and appropriate. The information contained in the attachment to this change will be incorporated into the Training Technology Resource Center (TTRC) Network under "Profiling/Services" at the "Reemployment" and "Q’s and A’s" sub-directories.

3. **Action Required.** Copies of FM 35-94 should be annotated to reflect these additions.

4. **Inquiries.** Direct UI-related questions to Ingrid Evans at 202-219-5922 and Wayne Zajac, 202-219-5616; questions related to ES/One Stop Career Centers should be directed to David Balducchi at 202-219-5257; and questions related to EDWAA/dislocated workers programs to Brian Deaton at 202-219-5306.

5. **Attachment.** Supplement No. 1

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<tr>
<th>RESCISSIONS</th>
<th>EXPIRATION DATE</th>
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</thead>
<tbody>
<tr>
<td>None</td>
<td>March 31, 1995</td>
</tr>
</tbody>
</table>

104.
## INDEX

<table>
<thead>
<tr>
<th>Question Categories</th>
<th>Question Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives/Components of Profiling &amp; Reemployment Services Systems</td>
<td></td>
</tr>
<tr>
<td>Data Elements</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td>Profiling Methodologies</td>
<td></td>
</tr>
<tr>
<td>Implementation of Profiling &amp; Reemployment Services System</td>
<td></td>
</tr>
<tr>
<td>Selection &amp; Referral</td>
<td>5, 6, 7</td>
</tr>
<tr>
<td>Adjudication/Appeals</td>
<td>10</td>
</tr>
<tr>
<td>Technical Assistance</td>
<td></td>
</tr>
<tr>
<td>Funding</td>
<td>12</td>
</tr>
<tr>
<td>Legal</td>
<td>15</td>
</tr>
<tr>
<td>Reemployment Services</td>
<td>8, 9, 11</td>
</tr>
<tr>
<td>Proposals/Cooperative Agreements</td>
<td></td>
</tr>
<tr>
<td>Feedback/Reporting Requirements</td>
<td>13, 14</td>
</tr>
<tr>
<td>Regional Office Responsibilities</td>
<td></td>
</tr>
</tbody>
</table>

105.
Q-1 How often do you profile someone?

A-1 In order to meet the goal of early identification of those particularly at risk of suffering long term unemployment, claimants are to be profiled after issuance of their first payment of unemployment benefits and only once during a benefit year.

Q-2 Will claimants have a choice as to whether or not they will be profiled?

A-2 No. All claimants in the profiling universe who have been issued a first payment will be profiled.

Q-3 What about those claimants not on UI or those who have been denied UI - are they not eligible to be profiled for reemployment services? How can these individuals be put in the system to get the same type of service?

A-3 The Department is not requiring profiling of anyone other than those who have been issued first payments. Other workers, however, could receive services by referral from Rapid Response or through self-referral.

Q-4 What claimant occupational data should be sought? Is it the one from which the claimant was just separated even if it was not his regular occupation? The same question applies to "former industry" and "job tenure". Could a State use the "insured unemployment rate" as an element instead of the "total" unemployment rate? 

A-4 In developing their profiling and reemployment services system design, a State could use a standard statistical package to test data elements for their power in predicting likely exhaustion of unemployment benefits. The available state data elements most successful in predicting likely exhaustion and identifying customers that meet the definition of a dislocated worker would be desirable elements to include in a model.
Q-5 Can a State use random selection to reduce the profiled group to a manageable workload for reemployment services and still meet requirements to treat claimants equitably?

A-5 Yes, if a State is using a characteristic screen model, random selection may be used to reduce the profiled group to workload consistent with the Referral Agreement. The States using a statistical model may also use random selection, if needed for claimants who share the same probability of exhaustion.

Q-6 Use of Social Security numbers (SSN) across program/agency lines could be a problem due to confidentiality barriers. How should States address this problem?

A-6 There is no requirement that identifiers be SSNs. Just as the Unemployment Insurance Quality Control program uses Batch identifiers (IDs) and last 4 digits of SSN to identify claimants, it is within the State’s discretion to determine the most appropriate way to provide information to service providers. States must be able to track participants throughout completion of reemployment services for feedback on outcomes. Identifiers must allow for operational linkages.

Q-7 How will individuals be notified that they have been identified through a profiling system as needing specialized assessment and reemployment assistance?

A-7 FM 35-94, Attachment E, Selections and Referral, states that UI will notify claimants when they are referred to service providers. Claimants may not know that they have been identified as individuals needing services until they receive referral notices that include all information necessary for the claimant to report timely to the service provider. Notices shall be formal notices and must advise the claimant of all information necessary to report to the service provider and of the claimant’s rights and responsibilities to participate and that failure to participate may result in denial of benefits. Since profiled claimants will, in most cases, be referred to provider organizations in which services are provided to individuals on a voluntary participation basis, it is important that the profiled claimant perceive a benefit in receiving reemployment services before s/he arrives at the service provider. Therefore, notices should also be worded to provide a brief description of the profiling and reemployment system and an explanation that claimants are selected using this system in order to increase their chances of returning to appropriate work as soon as possible.

107.
Q-8 Can you provide a specific citation to the proposed Reemployment Act of 1994 for a definition of reemployment services?

A-8 Section 314 of the Reemployment Act defines reemployment services and services are also described in FM 35-94, Attachment E, Reemployment Services.

Q-9 Is the "Service Plan" the equivalent of the "Individual Readjustment Plan" (IRP) as established pursuant to Section 314 (c) (1) of the JTPA?

A-9 No. The Service Plan is not as detailed as the IRP. Since EDWAA is not likely to be the only source of reemployment services for profiled workers, it is recommended that the State establish a standard Service Plan format to be completed by each reemployment service provider for those individuals referred to them. The Service Plan lists reemployment services to be provided, the dates scheduled, and the dates on which each service is completed. IRPs generally contain more information.

Q-10 What constitutes "justifiable cause" for failure to participate in reemployment services? Will the definition be left up to States discretion and, if so, are States required to include the definition in their proposals?

A-10 Generally, States have the responsibility and discretion to define "justifiable cause" for failure to participate in reemployment services. In accordance with UIPL 13-94, Change 1, States must be able to provide assurance in their proposals that their existing State laws, rules and procedures are sufficient to meet the eligibility conditions specified in P.L. 103-152 as they relate to participation in reemployment services. A directive with additional specifics is forthcoming.

Q-11 How long does a claimant stay in reemployment services? According to the process diagram, they stay in until they find employment, but is this realistic?

A-11 The process diagram is a general illustration of the system. Because each Service Plan is customized to meet each claimant's need, it is not possible to specify how long a claimant would stay in reemployment services. If claimants have not obtained employment upon the completion of the reemployment services Service Plan, then they are no longer subjected to a mandatory participation requirement.
Q-12 Are you providing added administrative resources for nonmonetary determinations and appeals that may result from profiling?

A-12 Yes. The Department has anticipated these costs and included them in the FY 1995 budget request. The Department will fund (at each State’s approved compensation rate) for the added nonmonetary determinations and appeals that result from profiling. The Department will also fund the associated overhead expenses.

Q-13 How frequently should feedback information be provided to the UI program by service providers?

A-13 FM 35-94, Attachment E, Feedback indicates that the primary mechanism for feedback would be the Service Plan. Feedback may occur any time there is a change in the claimant’s status and other times, as appropriate, during the various steps in the profiling and reemployment services process.

Q-14 Who will be responsible for providing feedback to Unemployment Insurance (UI) from “non-State” service providers?

A-14 Anyone designated a service provider to whom claimants identified as dislocated workers are referred for reemployment services will be expected to comply with the feedback procedures established in the State’s system. For those who might be exempted from the participation requirement due to completion of such services, the State will be responsible for establishing procedures and requirements for verifying that an individual has received reemployment services within an appropriate time before applying for UI.

Q-15 What’s the minimum action required by Nov. 94 for non-prototype States?

A-15 Unemployment Insurance Program Letter (UIPL) No. 13-94, The Unemployment Compensation Amendments of 1993 (Public Law 103-152) - Provisions Affecting the Federal-State Unemployment Compensation Program addresses these questions. The Department will take into account the feasibility of States actions in getting a profiling and reemployment services system implemented timely on a case by case basis.
DIRECTIVE : FIELD MEMORANDUM NO. 35-94, Change 2

TO : ALL REGIONAL ADMINISTRATORS

FROM : BÁRBARA ANN FARMER
Administrator for Regional Management


1. **Purpose.** To issue Supplement No. 2 (Questions and Answers Supplementing FM 35-94).

2. **Background.** Following enactment of P.L. 103-152 and the issuance of FM 35-94, staff from Regional Offices and State Employment Security Agencies (SESAs) raised questions relating to the grant solicitation and implementation of Worker Profiling and Reemployment Services Systems. Supplement No. 1 (Change No. 1 to FM 35-94) provided responses to 15 questions in the initial issuance of what is to be a series of questions and answers (Q's & A's).

Supplement No. 2 continues the series with Q's & A's numbered consecutively 16-30. They have been grouped into the following categories:

A. Administrative/General
B. Objectives/Components of Profiling & Reemployment Services
C. Data Elements
D. Profiling Methodologies
E. Implementation of Profiling & Reemployment Services
F. Selection & Referral
G. Adjudication/Appeals
H. Technical Assistance
I. Funding
J. Legal

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<tr>
<th>RESCISSIONS</th>
<th>EXPIRATION DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>March 31, 1995</td>
</tr>
</tbody>
</table>

110.
K. Reemployment Services
L. Proposals/Cooperative Agreements
M. Feedback/Reporting Requirements
N. Regional Office Responsibilities

As with the Q's & A's in Supplement No. 1, the information contained in the attachment to Supplement No. 2 will be incorporated into the Training Technology Resource Center (TTRC) Network under "Profiling/Services" at the "Reemployment" and "Q's and A's" sub-directories.

3. Action Required. Copies of FM 35-94 should be annotated to reflect these additions. Information should be forwarded to the SESAs.

4. Inquiries. Direct questions related to UI to Ingrid Evans at 202-219-5922 or Wayne Zajac, 202-219-5616; questions related to ES/One Stop Career Centers to David Balducci at 202-219-5257; and questions related to EDWAA/dislocated workers programs to Brian Deaton at 202-219-5306.

5. ATTACHMENT A. INDEX
ATTACHMENT B. FIELD MEMORANDUM NO. 35-94, Change 2
## INDEX

(includes question numbers from Change 1 & Change 2)

<table>
<thead>
<tr>
<th>Section</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Administrative/General</td>
<td></td>
</tr>
<tr>
<td>B. Objectives/Components of Profiling &amp; Reemployment Services Systems</td>
<td>16</td>
</tr>
<tr>
<td>C. Data Elements</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td>D. Profiling Methodologies</td>
<td>17</td>
</tr>
<tr>
<td>E. Implementation of Profiling &amp; Reemployment Services System</td>
<td></td>
</tr>
<tr>
<td>F. Selection &amp; Referral</td>
<td>5, 6, 7</td>
</tr>
<tr>
<td>G. Adjudication/Appeals</td>
<td>10</td>
</tr>
<tr>
<td>H. Technical Assistance</td>
<td></td>
</tr>
<tr>
<td>I. Funding</td>
<td>12, 24, 25, 26, 27, 28</td>
</tr>
<tr>
<td>J. Legal</td>
<td>15</td>
</tr>
<tr>
<td>K. Reemployment Services</td>
<td>8, 9, 11, 18, 19, 20, 21, 22, 23</td>
</tr>
<tr>
<td>L. Proposals/Cooperative Agreements</td>
<td></td>
</tr>
<tr>
<td>M. Feedback/Reporting Requirements</td>
<td>13, 14, 29, 30</td>
</tr>
<tr>
<td>N. Regional Office Responsibilities</td>
<td></td>
</tr>
</tbody>
</table>
Q-16  Is the Department of Labor requiring that only referred claimants be provided with reemployment services?

A-16  No. As stated in FM 35-94, Worker Profiling and Reemployment Services Systems are not intended to substitute for existing reemployment services, such as those currently provided by the ES and EDWAA programs in the State. Rather, these systems are intended to complement existing services within the State. ES, EDWAA, and other reemployment services providers will continue to serve individuals who seek services on their own (self-referrals) and individuals identified through rapid response, in addition to serving UI claimants referred via a profiling method.

Q-17  If a State uses a statistical model to produce a ranking of claimants most likely to exhaust benefits, can the State then superimpose characteristic screens to select claimants from that ranking with certain characteristics as requested by a Title III program service provider?

A-17  No. There is a critical difference between profiling and assessment. Profiling identifies the probability that an individual is likely to exhaust benefits and need some assistance in order to make the transition to a new job. It is not an effective or valid tool for identifying specific skills or occupational areas in which individuals should be trained or placed. This is the proper function of assessment. Second, identification through profiling should not result in referral to an occupation, education, or skill training provider. It should result in referral to a provider of reemployment services which are defined in the FM as consisting of: orientation, assessment, counseling, job search assistance, job search workshops and other similar services and does not include occupation, education and skill training.

States should not superimpose characteristic screens, or any other approach, to refer individuals for reemployment services based on service providers capabilities or capacity factors. The capabilities or capacity of service providers are administrative considerations that should be mediated in the Referral Agreement. It is expected that service provider capabilities and capacity will be expanded or adjusted to be able to respond to the service needs of the claimants in need of service.

States should not use any approach to refer claimants for services based on their interest in receiving 113.
reemployment services. The intent of P.L. 103-152 is the profiling method should provide for referral to reemployment services based on objective measures of need for assistance.

Q-18 What is the definition of approved service provider? Who has to approve them?

A-18 P.L. 103-152 does not provide a Federal definition of an approved service provider. As long as the reemployment services operate under State or Federal law, the determination of what is an approved service provider rests with the State. As indicated in FM 35-94, a comprehensive, state-wide strategy coordinated by the Governor shall be developed to address the delivery of quality reemployment services to appropriately referred UI claimants. In determining the deliverers for such services, the Governor may wish to utilize the State Job Training Coordinating Council or State Human Resource Investment Council, as applicable, to assist in the planning process.

Q-19 How do we ensure that profiled claimants identified as dislocated workers meet the statutory definition of dislocated workers for use of JTPA Title III funds.

A-19 Instructions in FM 35-94 advise States to consider the identification of claimants as dislocated workers through the use of a worker profiling method system as meeting EDWAA eligibility requirements. The intent was to provide a mechanism by which States do not pursue two separate eligibility tests for EDWAA when serving dislocated workers referred as a result of profiling.

Under EDWAA, the Governor has the authority to define criteria for operational terms, including "laid off or terminated" and "unlikely to return to previous industry or occupation". Therefore the Governor's authority provides the opportunity to develop a profiling method that collects and uses information that is consistent with the criteria established by a State for determining EDWAA eligibility.

The ability to use claimant identification through profiling as an adequate basis for EDWAA eligibility is directly related to the rigor of the profiling method used to identify dislocated workers. If the profiling method uses factors that verify that the claimant is permanently separated (i.e., the claimant is not "on recall" and not "in a union hiring hall", if applicable) and is unlikely to return to previous industry or occupation (i.e., using "declining industry" or "declining occupation" factors) then no other determinations on these factors by the EDWAA provider should be necessary.
Q-20 What will JTPA monitors/auditors need to verify eligibility for EDWAA for claimants identified by the worker profiling system and referred as being in need of reemployment services?

A-20 States will still need to meet their JTPA reporting requirements and continue to collect any information that may not be provided through the worker profiling system (e.g., selective service registration) as is presently required for EDWAA eligibility.

Q-21 Prior to a claimant's referral to a service provider as a result of selection through profiling, how may a State agency identify those claimants who have received or are receiving reemployment services?

A-21 The objective of the Worker Profiling and Reemployment Services System is to ensure that UI customers likely to exhaust their UI benefits and, therefore, be in need of reemployment services, receive services tailored to meet their individual needs. The specific administrative method to obtain information relating to past or current receipt of reemployment services is for States to determine.

There are many ways that the State may identify whether a claimant identified through profiling has received or is receiving reemployment services. One alternative to identify claimants who have received reemployment services is to use referral notices to advise claimants that, if they have recently received or are receiving reemployment services beyond registering with Employment Service, they should immediately advise their UI local office representative.

Finally, the UI component could request information pertaining to previous or current receipt of reemployment services at the time of initial claim filing or during a benefit rights interview.

As indicated in Attachment E. of FM 35-94, if administratively practical, profiled claimants who are currently receiving reemployment services shall be referred back to the service provider with whom they are receiving services. ETA will soon issue a directive discussing exemptions from the reemployment services participation requirement for receipt of unemployment benefits.

Q-22 Does identification of dislocated workers through profiling create an obligation to serve all dislocated workers?
No. State proposals should reflect reasonable estimates of those likely to need and the capacity to provide assistance. The Department recognizes that capacity to provide reemployment services may not currently be sufficient to meet the demand for services. The referral agreement provides a mechanism by which to adjust the flow of referrals based upon available resources as States work to build the capacity of their reemployment systems.

How can we ensure that the providers of reemployment services will be willing partners in this effort? Is there any consequence to ES and/or EDWAA if they do not assume responsibility for provision of services to claimants identified pursuant to a profiling system?

As stated in FM 35-94, the Governor is responsible for organizing an adequate worker profiling and reemployment services system for claimants referred due to profiling and coordinating the various critical components of that system. All operational components of the Worker Profiling and Reemployment Services System must cooperate to ensure the success of the Department's initiatives as provided in P.L. 103-152.

Is the JTPA system expected to set aside funds during program year 1994 for the implementation of worker profiling and reemployment services systems for "second wave" states?

The JTPA entities in each State are expected to jointly plan the implementation of the Worker Profiling and Reemployment Services System with, minimally, their State UI and ES counterparts. This planning should address both the estimated demand for reemployment services and the timing of that demand. The amount of JTPA funds which should be made available, and when, to support the Worker Profiling and Reemployment Services System will be a function of the agreements among JTPA-UI-ES on the demand for services, the timing of the demand, and the partnership role to be played by JTPA as a reemployment services provider.

If JTPA Title III dollars are to be set aside for implementing reemployment services for profiled workers, can such services be procured on a sole source basis?

The Governor does not have the authority to override the procurement provisions which apply to JTPA programs regarding the use of JTPA Title III resources. As long as all JTPA procurement provisions are adhered to, sole source is not prohibited but its use is to be minimized.
Q-26 Can Rapid Response funds be used to provide orientation to profiled claimants who have not participated in a formal Rapid Response?

A-26 No. Rapid Response funds are to be used for the activities described in Section 314(b) of JTPA. Other funds reserved by the Governor under Section 302(c) could be used for such activities.

Q-27 Can JTPA Title III funds be used to support orientation for profiled claimants and initial assessment and referral of profiled claimants even if the claimants will not yet be enrolled in EDWAA? If "yes", then can JTPA Title III funds be used for the orientation component of the profiling and reemployment services system?

A-27 The use of JTPA Title III funds in conjunction with the State's Worker Profiling and Reemployment Services System will be governed by the same policies which currently exist regarding the use of Title III funds. The JTPA statute is clear in defining "participation" as "... the first day, following determination of eligibility, on which the participant began receiving subsidized employment, training, or other services provided under the Act." Section 314 of JTPA defines the employment, training and other services for Title III. The Department of Labor recognizes the State's authority to establish a policy which allows outreach, intake and some orientation activities to be provided to eligible individuals, without an enrollment action, for the purpose of determining the appropriateness of JTPA Title III services for the individual. This same policy will apply to the use of JTPA Title III funds in the Worker Profiling and Reemployment Services initiative.

Obviously, the requirement for enrollment is determined by the purpose and scope of services provided in the orientation component. To the extent that the focus of the component is providing and collecting some general information that is used to determine which reemployment service provider system the individual should be referred to, then an enrollment action would not be required. However, it is expected that resources as appropriate from all profiling and reemployment services organizational partners will be used to support such a component.

Finally, the use of any JTPA Title III funds for testing of individuals will require an enrollment action in JTPA Title III.

Q-28 How will EDWAA funds be disbursed for required services and activities?
EDWAA funded services provided in support of the Worker Profiling and Reemployment Services System should be provided in accordance with the reemployment service provider system organized by the Governor. Funds are disbursed consistent with substate grantee allocation procedures described in the Act; and, for funds other than substate grantee allocations, in accordance with the procurement standards established by the Governor in accordance with section 627.420 of the JTPA Regulations.

Since substate grantee allocations are subject to a 50% expenditure on retraining services requirement (waivable by the Governor down to 30%), the State should also consider the use of funds reserved by the Governor for statewide projects (which could include reemployment services for referred claimants). The selection of operators of statewide projects must be in accordance with the established procurement standards.

Q-29 Is the Service Plan required to be transmitted to the unemployment insurance component of the Worker Profiling and Reemployment Services System? If so, what purpose does this serve?

A-29 Yes, the Service Plan for each claimant referred via a profiling method must be transmitted to the UI component upon the initial completion of the Service Plan (e.g., as soon as the claimant and the service provider have agreed to the plan).

Worker Profiling and Reemployment Service Systems combine a requirement that claimants referred through profiling—claimants who are likely to become long-term unemployed if they do not receive assistance—participate in early reemployment services with a customized approach to the provision of services that ensures that the specific set of services the worker receives is tailored to their individual employment needs. The "glue" that holds this approach together is the Service Plan. The Service Plan is the source of information that defines the agreement between the referred claimant and the service provider regarding the specific reemployment services that will be provided to the claimant. This specified set of services is both customized to the claimant's individual needs and for which participation is required as a condition of continuing eligibility for UI benefits. Thus, the Service Plan specifies the individualized set of services in which the claimant must participate.

For the purposes of monitoring this individualized participation requirement, the Service Plan ensures that there is a clear record of the customized set of services in which each referred claimant will be required to participate. The Service Plan will then provide the foundation for monitoring the claimant's
eligibility—i.e., any information provided to UI about failure to participate in reemployment services will be compared to the information in the Service Plan. Thus, it is imperative that the Service Plan be provided to the UI component as soon as it is developed and become a part of the claimant's permanent UI record.

Q-30 How and when will information regarding reemployment services activity and employment outcomes be communicated between the service provider and the UI component?

A-30 It is the responsibility of the service provider and the UI component to determine how information relating to activity and outcomes associated with reemployment services is communicated. At a minimum, (see Answer A-29), the service provider should provide information relating to reemployment services upon (1) the orientation and initial completion of the Service Plan. The basis for the initial communication of information contained in the Service Plan to the UI component is to insure that it is apprised of what is agreed to and expected of the claimant at the inception of the Service Plan and to insure the claimant's continued receipt of benefits, if otherwise eligible; (2) any change in the claimant's status or participation; (3) completion or termination of reemployment services.

The information contained in the Service plan will be maintained by the UI component as part of the claimant's permanent UI record. Should an issue of the claimant's continuing eligibility for benefits arise as a result of participation in reemployment service activities such information contained in the claimant's permanent UI record may form the basis for any adjudicatory decision affecting benefit eligibility and potential appellate review.

Information regarding the claimant's participation in reemployment services, including the specific customized reemployment services for which the claimant agreed to receive and the receipt schedule may be recorded on the Service Plan or other forms developed by the service provider. Whether information is exchanged by manual or electronic communication is a State determination. The Department of Labor has designated the SESA to maintain records to collect follow-up information relating to the services received by claimants and employment outcomes. This may be accomplished through several alternative methods as discussed in Attachment E. to FM 35-94.
DIRECTIVE: UIS INFORMATION BULLETIN NO. 4-94

TO: ALL REGIONAL ADMINISTRATORS

FROM: MARY ANN WYRSCHE
Director
Unemployment Insurance Service

SUBJECT: Profiling Model Paper - Profiling Dislocated Workers for Early Referral to Reemployment Services

Attached is a copy of the final version of the above report. The report describes an econometric model that serves to identify those unemployment insurance (UI) claimants who are dislocated workers and in need of reemployment services.

This model is the basis for much of the discussion contained in Unemployment Insurance Program Letter (UIPL) No. 45-93, Profiling of Unemployment Insurance (UI) Claimants. Its basis was research performed on national level survey data, which would have to be adjusted for use by individual States.

The information contained in this report should be useful to all State Employment Security Agencies (SEAS) in developing UI claimant profiling systems in accordance with the provisions of Public Law 103-152, The Unemployment Compensation Amendments of 1993. Information contained in this paper should also be useful to Regional Office staff in providing assistance to SEAS on profiling implementation issues.

A copy of the paper should be provided to the individual in the SESA responsible for developing the SESA's profiling system. Please contact either Wayne Zajac on 202-219-5616 or Ingrid Evans on 202-219-5922 concerning this report.

Attachment

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<tr>
<th>RESCISSIONS</th>
<th>EXPIRATION DATE</th>
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<td>None</td>
<td>120</td>
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PROFILE DISLOCATED WORKERS FOR EARLY REFERRAL
TO REEMPLOYMENT SERVICES

Kelleen Worden

October 6, 1993
EXECUTIVE SUMMARY

BACKGROUND Changes in technology and international trade have lead to changes in the U.S. economy and, consequently, changes in the labor market. Workers who held jobs in a plant that has closed, or who possess skills that are no longer in demand may find themselves permanently separated from their employers, with no similar jobs available. Many of these "dislocated workers" could face great difficulties in finding new employment and may exhaust their unemployment benefits. Services such as job search assistance have been shown to significantly help dislocated workers make the transition to a new job.

Policy makers believe such services would be even more effective if provided earlier in the worker's unemployment spell. As a result, the Clinton Administration proposed and the Congress approved Section 4 of P.L. 103-6, which provides for assistance to state UI agencies in profiling new UI claimants. One of the primary goals of profiling will be to identify, early in their unemployment spells, those permanently separated workers who are likely to experience reemployment difficulty. Once identified, these workers can be referred to additional job search assistance and/or training. A profiling model must also narrow the target group to a size that can be effectively served. Profiling would allow for more timely provision of services to dislocated workers likely to experience long durations of unemployment. This paper describes the analysis used to develop a profiling model based on worker characteristics.

MODEL OVERVIEW Various academic studies have already documented strong relationships between reemployment difficulty and characteristics such as schooling or job tenure, but this paper summarizes further analysis which is the basis for a profiling model (hereafter referred to as "the model") that addresses the specific policy issues of this profiling initiative. Most importantly, the model proposed in this report is simple and straightforward. In addition, although the model is based on a
single national algorithm, it is sensitive to changes in the labor market across states and over time. It also contains a mechanism to adjust the size of the targeted population. Finally, the model contains only variables that are statistically justified as well as intuitively sensible. The model provides a more comprehensive assessment of the worker's needs compared to earlier profiling attempts, leading to a measurable improvement in the accuracy of targeting.

The proposed model encompasses a two-step approach. As mentioned above, the model is designed to target those unemployed workers who are permanently separated and whose characteristics make them more likely to suffer long jobless spells. Determining permanent separation will be done in the first step. Workers will be asked if they are on recall, and whether they have a union hiring hall agreement. It is not the intent of profiling to disrupt a worker's existing attachment to an employer or labor union, and those unemployed workers who are on recall or have a union hiring hall agreement will be excluded from the target group. The model would then be used to assess the reemployment difficulty of the permanently separated workers, based on a combination of several characteristics.

It is important to note that once the permanently separated workers have been identified, there is no single characteristic that acts as a "screen" to include or exclude workers from the target group. Rather, individual workers will be included or excluded based on their overall combination of characteristics. Those workers whose estimated probability of reemployment difficulty is sufficiently high will be targeted for reemployment services.

**ADDITIONAL DETAILS** Many characteristics were statistically shown to be related to reemployment difficulty, but only the seven variables found to be most important were included in the proposed model. As mentioned above, the two required data items in the first step are recall status and union hiring hall status. The
five data items used in the second step to predict reemployment difficulty are: employment change in the worker's pre-UI industry and occupation, years of schooling, years of tenure on pre-UI job, and state unemployment rates.

The analysis used historic data to measure the effects of these seven characteristics on reemployment difficulty, and to develop a model that estimates an unemployed worker's likelihood of a long unemployment spell associated with those characteristics.

Schooling and tenure are characteristics that describe the individual worker. The worker's predicted probability of reemployment difficulty decreases with the worker's level of education and increases with the worker's years of tenure. This model is consistent with many studies that show workers with no high school diploma have significantly more trouble finding new employment. Tenure is positively related to reemployment difficulty because it measures job specific human capital, a finding also reported in several other studies.¹

Three additional variables, the state's total unemployment rate and the decline or growth in the worker's industry and occupation, assess the overall employment environment in which the worker is searching for a job. These variables build into the model sensitivity to varying labor market conditions, particularly at the state level. Earlier studies based estimation of reemployment difficulty on particular industry screens, shown to be troubled at the national level at that point in time. But industry composition varies greatly across states and over time. Applying nationally determined industry screens at the state level could lead to some industry screens that are not sensitive enough to differences in state labor markets, or that become outdated over time.

¹ It is important to remember that this analysis focuses on those workers already unemployed. Workers with higher tenure are usually less likely to lose their jobs, but among those already unemployed, longer tenured workers suffer greater reemployment difficulties.
Rather than estimating the reemployment difficulty associated with being from a particular industry, the estimate is based on the employment change in the worker's industry for his or her state, whatever that industry is. Because employment change by industry is measured at the state level, the model is sensitive to each state's growing and declining industries.

Due to data limitations, the impact of declining occupations could only be measured at the national level. While the model will not capture variations in occupational employment across states, it will capture changes in nationally declining industries over time. The recent recession has shown that dislocation is no longer strictly a blue-collar phenomenon, making this sensitivity to changes in declining industries and occupations particularly important.

The state's total unemployment rate also increases the model's sensitivity to varying state economic conditions. While an unemployed worker with given characteristics may have little trouble in a state with low unemployment, that same worker might have much greater difficulty in a state with high unemployment. The model will target a greater proportion of unemployed workers as a state's unemployment rate rises.

The model gives policy makers flexibility in setting the size of the targeted population. Choosing the threshold for predicted probabilities directly determines the number of workers included in the target group. Including only those workers with a very high predicted probability of difficulty leads to very few referrals, while lowering that threshold increases the number of referrals. In applying this model, states could have discretion to set that threshold within a range determined by the model. This is another aspect of the model that is sensitive to states' needs. As

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2 BLS staff indicated that state level occupation data could only be obtained by contacting individual states, which was not feasible given the scheduling of the profiling initiative. State level occupation data may be available for future re-estimations of the profiling model.
mentioned above, for a given threshold, the state unemployment variable will adjust the size of the targeted population as the state's economy changes. The addition of state unemployment rates will enable the model to help states make more informed decisions as to the appropriate size of the targeted population.

**EVALUATION OF MODEL** Preliminary results based on historic data show the model is significantly more accurate compared to earlier profiling efforts. The goal of profiling is to narrow the target group to a size that can be effectively served, while including as many permanently separated workers with serious reemployment difficulty as possible. Historic data indicate that the model would target a group of claimants equal to 30 percent of the total UI population, while including 53 to 60 percent of all UI recipients with serious reemployment difficulties.

Naturally, not all of the workers targeted by the model will actually experience serious reemployment difficulty, and it is also important to look at the composition of the target group. The group of workers targeted by the model has a much higher concentration of dislocated workers than in the UI population at large. Within the group of UI recipients targeted by the model, 55 percent were permanently separated and experienced jobless spells of over six months. This compares to only 30 percent who were permanently separated and unemployed over six months in the UI population at large.³

These results are significantly better than for a more simplified profiling effort based solely on a permanent separation screen. Based on current estimates, this single screen would place fully 75 percent of the total UI population in the target group. It would not be feasible for State Employment Security Agencies to effectively serve a target group this large. Using a tenure screen in addition to the separation screen would only lower the sample to

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³ Note that these measures are intended as indicators of potential outcomes, not statistical fit.
approximately 42 percent, and the composition of the targeted group would be less accurate than the group targeted by the model; only 45 percent of the group identified by the separation and tenure screens were unemployed over six months, compared to 55 percent of the group targeted by the model.

**CONCLUSION** An operational profiling model for state UI agency use that is based solely on permanent separation and/or tenure screens alone would not build in sensitivity to state employment conditions or flexibility regarding program size. Given the goal of profiling, to target dislocated workers for early referral while narrowing the target group to a feasible size, the model described above provides a more flexible, accurate and statistically justified method to accomplish this.
INTRODUCTION

Changes in technology and international trade have lead to changes in the U.S. economy and, consequently, changes in the labor market. Workers who held jobs in a plant that has closed, or who possess skills that are no longer in demand may find themselves permanently separated from their employers, with no similar jobs available. These workers are typically referred to as dislocated workers. There are several definitions of a dislocated worker. The most general definition includes all workers who are permanently separated from their employers. The Bureau of Labor Statistics (BLS) definition includes only those permanently separated workers with at least 3 years of tenure on their pre-layoff job. Other policy makers view dislocated workers as all workers who are permanently separated and experience measurable difficulty in securing reemployment, whether evidenced by long unemployment durations or significant earnings reductions.

Increases in worker dislocation is a primary concern of the Clinton Administration, and is the basis for the Profiling initiative. This initiative seeks to help state Unemployment Insurance (UI) agencies identify and assist dislocated workers early in their spells of unemployment. The proposal was enacted on March 4, 1993 as section 4 of P.L. 103-6.

Although total unemployment rates experienced during the recession of 1990 to 1991 were significantly lower than those during recessions of the 1970s and 1980s, these aggregate unemployment rates understate the severity of the early 1990s recession. The increase in permanent job loss or worker dislocation during this recession approached the post-war high experienced in the 1981 to 1982 recession. The average duration of total unemployment during the early 1990s was 14 weeks.

The 1990s recession is also unique in that more workers in white collar occupations lost their jobs compared to workers in blue collar occupations. The changing nature of structural

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4 See Mishel and Bernstein, 1992.
unemployment poses additional challenges to the profiling
initiative.

Many of these permanently separated workers could face great
difficulties in finding new employment and may exhaust their
unemployment insurance (UI) benefits. Services such as job search
assistance have been shown to significantly help dislocated workers
make the transition to a new job. Policy makers believe such
services would be even more effective if provided earlier in the
worker's unemployment spell. In New Jersey, for example, early
referral to job search assistance (JSA) programs reduced targeted
claimants' spells on UI an average of three quarters of a week.
This program was found to provide net benefits to the claimant,
U.S. Department of Labor agencies, and society as a whole.\(^5\)

One of the primary goals of the profiling initiative is to
identify, early in their unemployment spells, those permanently
separated new claimants whose characteristics strongly increase
their likelihood of reemployment difficulty. Profiling would allow
for more timely and accurate provision of services to dislocated
workers likely to experience long durations of unemployment.
Profiling is all the more needed given limited program funding,
because if helps focus resources on those most likely to need such
services in making the transition to a new job. This paper
describes the analysis used to determine what worker
characteristics should be used to target dislocated workers.

EXISTING STUDIES ON DISLOCATION

Several studies that investigate the relationship between
various characteristics and reemployment difficulty are described
below. Much of this research is based on data collected by the
Bureau of Labor Statistics (BLS) in its Dislocated Workers Survey
(DWS). This survey is supplemental to the regular Current
Population Survey (CPS) and has been conducted every two years

\(^5\) See Anderson Et al., 1991
since 1984. Interviewees who respond that they have been dislocated in the last five years are asked an additional 25 questions regarding their pre- and post-dislocation work history.

Ross and Smith, of the Congressional Budget Office (CBO) compiled the DWS data from 1984 to 1992 for a selected subset of DWS and CPS variables. This data enabled them to study the characteristics of dislocated workers over a ten-year period. CBO looked at a variety of characteristics including age, schooling, job tenure, gender, ethnicity, reason for job loss, worker's previous industry, whether the worker was blue collar, and state and national unemployment rates at the time of dislocation. CBO found that job tenure, age, and schooling were among the most important characteristics in explaining reemployment difficulty and earnings losses among dislocated workers. They found this relationship to be relatively stable over time, that is these characteristics were associated with reemployment difficulty during economic contractions as well as expansions. Reemployment difficulty was measured both as the probability of reemployment and the duration of unemployment. Earnings loss was measured as the probability of at least a 20 percent reduction in earnings from the pre-UI job to the post-UI job.

CBO points out differences in characteristics between workers who are just permanently separated and those who also have reemployment difficulties. For example, workers with long tenures are less likely to become permanently separated from their jobs. But among workers who are permanently separated, those with long tenures tend to experience the greatest reemployment difficulties. According to this study, women were also less likely to find new jobs.

Over the ten-year period studied CBO found that blue collar workers and workers in goods producing industries were more likely to become permanently separated and more likely to have reemployment difficulties, when compared to white collar workers.

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6 See Ross and Smith, 1993.
However, the proportion of displacements occurring among white collar or service producing workers is growing. CBO reports that the proportion of dislocation occurring in services producing industries rose from about 40 percent to just over 50 percent between 1981 and 1990. They also note, however, that while the share of dislocation occurring within goods-producing industries is falling, its share of dislocation still equals twice its share of total unemployment.

CBO found that workers who lost their jobs due to plant closing or shift termination were more likely to find new jobs than those unemployed due to slack work. The authors believe this may be because those workers from closed plants or terminated shifts were more certain of their need to search for new jobs than those unemployed because of slack work.

Corson and Dynarski, of Mathematica Policy Research Inc., also investigated reemployment difficulty in their study on UI exhaustees. They found their results varied significantly by recall status and conducted their analysis separately for workers with specific recall dates, workers who expected to be recalled but had no recall date, and workers who did not expect to be recalled.

They found that workers' recall expectations were fairly accurate indicators of recall outcomes. Only nine percent of workers who did not expect to be recalled returned to work for their previous employer. Approximately 92 percent of workers with definite recall dates were recalled, as were 72 percent of workers with recall expectations but no dates. This indicates it may be best to screen out those workers with a specific recall date as well as those who expect to be recalled but have no date.

Similar to the CBO study, the Mathematica exhaustee study measured reemployment difficulty in terms of duration of unemployment, probability of benefit exhaustion and probability of earnings loss. Mathematica selected a sample of claimants from 20 states, who filed between 1987 and 1988. These claimants were

\[\text{See Corson and Dynarski, 1990.}\]
interviewed in 1989 regarding their personal characteristics and labor market experience since filing their claim. Mathematica studied more variables than CBO, including not only demographic characteristics and economic indicators, but also UI program parameters and job search activity. Mathematica found the rate of benefit exhaustion was substantially higher among those workers not on recall. For those who did not expect to be recalled, age, tenure, gender, marital status and ethnicity were significant predictors of exhaustion probability. Older workers and workers with longer tenure or union membership were more likely to exhaust, as were minorities and women, particularly women with working spouses.\(^8\) These characteristics also lead to significantly longer unemployment durations. Being a high school dropout significantly increased the probability of benefit exhaustion, but not unemployment duration. Mathematica did not find that being from the construction or machinist occupations or the manufacturing industry had significant effects on exhaustion probabilities, but did significantly increase unemployment durations. Having regular layoffs in the past did not significantly increase a worker's probability of exhaustion or duration of unemployment.

Higher UI replacement rates were also associated with higher probability of exhaustion. Part of this effect could be due to disincentive effects and part could be due to the correlation between income and skill level. Higher replacement rates are typically associated with lower incomes.

Not surprisingly, increases in potential duration significantly lowered the probability of exhaustion. Increases in potential duration also significantly shortened unemployment duration, a less intuitive result. Mathematica attributes this result to their measure of unemployment duration, measured from the

\(^8\) While some studies found that women are clearly associated with longer duration or other measures of displacement, Mathematica found the relationships between gender and displacement is more complicated and cannot be examined without considering marital status and working status of spouse.
initial claim date, and the fact that workers with shorter potential durations may delay filing for benefits. The local total unemployment rate significantly increased the probability of exhaustion. Work search activity was not found to significantly affect exhaustion probability or unemployment duration, nor did participation in current Job Service Activities or training. It is important to note that the sample sizes for this investigation were fairly small, and failing to find significant effects for certain characteristics does not mean such effects do not exist, simply that the effects were not revealed by this particular estimation.

Although Mathematica ran no regression on earnings loss, their analysis showed that 37 percent of exhaustees and 14 percent of nonexhaustees incurred earnings losses of at least 25 percent upon accepting their first post-UI job. Two thirds of this reduction in earnings was shown to be due to a reduction in weekly hours. The reduction in earnings may also be partially explained by significant industry shifts among exhaustees, primarily from the manufacturing industry to retail trade and services.

The CBO and Mathematica studies were two of the primary studies of dislocation sponsored by the government. Many other studies regarding dislocated workers have been published in various journals. Several of these articles are based on the DWS data described above and many of their results were consistent with the CBO findings. Paul Swaim and Michael Podgursky investigated the effects of an additional year of education on dislocation. They found that workers with more schooling had shorter durations of unemployment, greater probabilities of full-time reemployment, and were reemployed at salaries that compared more favorably to their pre-UI earnings. The authors found the effect of schooling on joblessness was stronger for blue-collar workers, but the effect on future earnings was stronger for white-collar workers.⁹

Studies measuring the effect of job tenure on reemployment difficulty were conducted by Kletzer in 1989 and Valletta in 1991. Kletzer looked at the effect of pre-displacement job tenure on post-displacement earnings for workers displaced between 1979 to 1984.\textsuperscript{10} The author found that as pre-displacement tenure rose, managerial, professional and technical workers were able to transfer most of the associated increase in earnings to their new jobs. Blue-collar workers, on the other hand, were able to transfer much less of their returns to seniority, indicating that their skills are not as readily transferable as those of some white collar occupations. These findings are consistent with the notion of job specific human capital described earlier.

Valletta uses duration models to measure the effect of job tenure on unemployment duration for workers displaced between 1979 and 1986.\textsuperscript{11} He finds that years of tenure is positively related to duration of unemployment and that these effects are generally greater for men than for women. Valletta hypothesizes that longer tenure is associated with longer unemployment spells because workers with long tenures have traditionally been paid wages that are greater than the value of their marginal product would be in different job. Workers who are separated from their employers late in their tenure and searching for new jobs therefore have unrealistic reservation wages, leading to longer unemployment spells. Valletta believes the effect of years of tenure may smaller for women, possibly because women have not been rewarded as strongly for long tenures, or that women are more willing to accept jobs paying less than their previous wage.

Studies by Herz investigate the changing nature of the dislocated worker population, especially regarding industrial and occupational distribution.\textsuperscript{12} Herz echoes the earlier reported

\textsuperscript{10} See Kletzer, 1989.
\textsuperscript{11} See Valletta, 1991.
\textsuperscript{12} See Herz, 1991 and 1990.
findings of Ross and Smith and Mishel and Bernstein that displacement is no longer strictly a blue-collar or goods-producing phenomenon. While most displacement still occurs in blue-collar professions and manufacturing industries, displacement in services and white collar occupations was growing at a faster rate between 1979 and 1989. The number of displaced workers in manufacturing between 1985 and 1989 was 1.6 million, compared to 2.5 million between 1979 and 1983. The number of displaced workers in trade during these two periods grew from 0.7 million to 0.8 million. The number of displaced workers in services grew from 0.5 million to 0.6 million. Herz also found that about 50 percent of displaced manufacturing workers changed industries upon becoming reemployed.

MODEL OVERVIEW

As mentioned above, reemployment services could be more effective if provided early in a worker's unemployment spell. Profiling dislocated workers for early referral entails identifying permanently separated workers and predicting who among them are more likely to experience difficulty finding a job. The proposed model encompasses a two-step approach. Determining permanent separation will be done in the first step. In the second step, the model would assess the reemployment difficulty of the permanently separated workers, based on a combination of several of the most important characteristics.

The second tier of the model was constructed using historic data and regression analysis to estimate the effects of various worker characteristics on their reemployment difficulty. The final estimated equation calculates each worker's total probability of serious reemployment difficulty, based on those characteristics.

While many studies already provide strong evidence on the relationships between reemployment difficulty and characteristics such as schooling or job tenure, further analysis was needed to develop a model that addresses the specific policy issues of this profiling initiative. Most importantly, the model proposed in this
report is simple and straightforward. Because academic research is done largely for the purpose of learning more about dislocated workers, the models may use complex techniques and long lists of variables to represent the characteristics of dislocated workers as completely as possible. The goal of this research, on the other hand, was to develop a model for operational use by individual states. The focus at every step of this analysis was to create a model that was less complicated, less expensive, and acceptable to the states, while still capturing most of the predictive power of more complicated models. Only variables that were both statistically significant and intuitively sensible were tested, and among those only the seven most important variables in terms of predictive power were included.

It was also important to develop a model that was based on a single national algorithm, but nonetheless was sensitive to changes in the labor market across states and over time. Because the proposed model is based on a single national algorithm, it helps provide comparable treatment of claimants across states and facilitates evaluation of the model and possible improvements in the program. At the same time the model recognizing each state's overall economic climate and unique mixture of growing and declining industries. The model is also sensitive to changes in declining occupations. The recent recession has shown that dislocation is no longer strictly a blue-collar phenomenon, making this sensitivity to changes in declining industries and occupations particularly important.

The model provides a more comprehensive look at the worker's needs compared to earlier profiling attempts, leading to a measurable improvement in the accuracy of targeting. It is important to note that once the permanently separated workers have been identified, there is no single characteristic in this model that acts as a "screen" to include or exclude workers from the target group. Rather, individual workers will be included or excluded based on an assessment of their overall combination of characteristics. For example, there is no single level of tenure
which serves to include or exclude a worker in the target group; rather, the level of difficulty associated with that worker's tenure would be added to his or her overall estimated probability of reemployment difficulty. Those workers whose estimated probability of reemployment difficulty is sufficiently high will be targeted for early referral to reemployment services.

Finally, the model also gives policy makers flexibility in setting the size of the targeted population. Choosing the threshold for predicted probabilities directly determines the number of workers included in the target group. Including only those workers with a very high predicted probability of difficulty leads to very few referrals, while lowering that threshold increases the number of referrals. The states would have discretion to set that threshold within a range specified by the model. This is another aspect of the model that is sensitive to states' needs.

DATA SELECTION

As mentioned above, the estimated relationships between various characteristics and reemployment difficulty were based on historic data. Unfortunately, there is no single data set currently available that contains all the relevant variables for the universe of workers we wish to observe. Several existing data sets have varying strengths and weaknesses, and different data sets were used for various elements of the analysis. The tight schedule of deliverables on the profiling initiative made it necessary to focus on those data sets most readily available. The three data sets used for the analysis were the 1990 and 1992 panels of the DWS/CPS surveys, the CBO data and the Mathematica exhaustee data.

The 1990 and 1992 panels of the DWS/CPS data were simply used to evaluate whether any of the variables excluded from the CBO extract were important to profiling research. Several regression equations estimated with BLS data indicated that no variables excluded from the CBO extract were of use to this study.

137.
The CBO and Mathematica data sets were both considered as candidates for the final estimation. One important issue considered when choosing a data set for the final estimation was the accuracy of reemployment measures. The DWS measures of reemployment outcomes are subject to substantial memory bias, since interviewee's were asked to describe unemployment spells occurring up to five years earlier. CBO eliminates much of this recall bias by discarding observations more than two years in the interviewees' past. Nonetheless, all observations based on memory involve some bias.

Secondly, the universe of the DWS and CBO data sets may be too restricted. The sample only includes observations for those workers who identified themselves as being laid off due to "plant closing, shift elimination, layoff without recall, or other similar reason." Based on this broadly defined and self-identified criterion, it is difficult to tell exactly who is included in the sample.

The Mathematica data, on the other hand, are subject to very little recall bias because the data are based on actual claim status. It is a sample of all UI claimants, and a variable on recall status allows for comparison of those workers who do not expect to be recalled, those who expect to be recalled but have no date, and those with a specific recall date. The recall status variable would allow for a more accurate sample of permanently separated employees. Unfortunately the Mathematica data only include a sample of 20 states and cover only a single year, 1988, when the lowest number of dislocated workers were observed over the past decade. Although the measure of reemployment outcomes was more accurate using this data set, a model developed using 1988 data may not be appropriate for the current economic climate.

The CBO data set was used to evaluate whether using this single year of data for only 20 states would substantially alter the structure of the model. CBO estimation based on only the 20 states covered by the Mathematica data did not differ significantly from estimations based on all 51 jurisdictions. However,
estimations based on 1988 data were significantly different than estimations based on other years of data. Using 1988 data would therefore significantly affect the structure of the model. This may appear to contradict CBO's findings that dislocated workers' characteristics remain fairly stable over time, but it merely reflects a different research focus. CBO is correct to point out that when the model is estimated separately for each year of data, the same general positive and negative relationships between various characteristics and reemployment difficulty are revealed. They note that while the estimated size of some effects may vary from year to year, some of this is due to smaller sample sizes, rather than actual changes in the relationships.

Nonetheless, the focus of this research is not simply to understand the general nature of dislocation, but to develop a model that will be implemented. Although many of these yearly changes in estimated effects are not statistically significant, they imply very different model specifications. Based on these findings, the final equation was developed using CBO data, because it was decided that a predictive equation based on data covering 1981 to 1990 would be more appropriate that a model based solely on data from 1988, when dislocation was at a low point for the decade. The CBO data set covered more variation in economic activity, allowing for better estimations of the coefficients on industry and occupation variables.

As mentioned earlier, there was some concern regarding the accuracy of the self identified sample of permanently separated workers contained in the CBO data. A final analysis was conducted to see if the CBO sample was significantly different than the Mathematica sample. The same equation was run for 1988 observations from both data sets. Unfortunately, these results are inconclusive. Because the resulting sample sizes were so small, many of the coefficients were insignificant, and it was not possible to tell if the CBO estimation was significantly different from the Mathematica estimation. It was still felt that the problems regarding the use of 1988 data were more serious than
problems regarding sample selection, therefore the CBO data was used to develop the final equation. Using a full ten years of data as well as a sample of 51 jurisdictions would make this model more nationally representative.

As discussed below, the Mathematica data was used to help measure how well the model would perform. Since the Mathematica sample was representative of all UI claimants, and was then separated by recall status, it was well-suited to measure the effects of the first and second steps of this model.

There were several data sets considered that were not used. The SIPP data (Survey of Income and Program Participation) appeared to avoid many of the weaknesses described in the above data sets. This nationally representative longitudinal data set has been collected since 1984 and has many variables on demographic characteristics, training participation and labor market history. It does not rely on respondents' ability to remember their recent labor history; rather, the survey tracks their experience every four months over a period of 36 months. However, the record layout of SIPP has changed substantially over the years. The variable identifying recall status was dropped from SIPP after 1984, and no other indicator of permanent separation was included. Permanent separation is an important characteristic for this study, and this data set was dropped from consideration.

Data sets gathered for the purpose of U.I. state demonstration projects also were not used during this analysis. While the reports from these projects provided valuable context to this study, the data analysis required a nationally representative data set. In the future, researchers may also want to consider the longitudinal data collected by Canada's office of Office of Employment and Immigration. While this data set was not available soon enough to be considered for this project, its longitudinal coverage of employment history and program participation could be useful for future research on profiling.

140.
DETAILS OF MODEL SPECIFICATION

As mentioned above, many characteristics were statistically shown to be related to reemployment difficulty, but only the seven variables found to be most important were included in the proposed model. In the first step, workers will be asked if they are on recall, and whether they have a union hiring hall agreement. It is not the intent of profiling to disrupt a worker's existing attachment to an employer or labor union, and those unemployed workers who are on recall or have a union hiring hall agreement will be excluded from the target group. 9

The five data items used in the second step to predict reemployment difficulty are: employment change in the worker's pre-UI industry and occupation, years of schooling, years of tenure on pre-UI job, and state total unemployment rates. These variables measure worker characteristics, as well as describe the economic environment in which the worker is seeking reemployment.

In measuring the characteristics of workers with reemployment difficulty, this analysis focussed on permanently separated workers unemployed over six months. This does not imply that workers with slightly less than six months of unemployment will somehow be screened out of the target group, simply that the model was estimated using the characteristics of those unemployed over six months. It was felt that permanently separated workers unemployed over six months, many of whom had already exhausted their benefits, were most representative of true reemployment difficulty. 10

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9 Careful attention should be given to collecting data on recall status. Several policy makers have noted that many claimants on recall tend to deny their recall status, because they mistakenly believe that being on recall reduces their eligibility for UI benefits.

10 The sample was also restricted to workers who collected UI. It was felt this sample would more closely represented UI applicants than a sample of unemployed workers in general.
For each observation in the CBO historic data, the probability of reemployment difficulty was assigned a value of 1 if the worker was unemployed over six months, zero otherwise. This dependent variable was regressed on several worker characteristics to develop an equation that estimates the probability of reemployment difficulty for each worker. It is important to note that while the dependent variable was coded as a binary variable during estimation, the output of the model will be a continuous variable—the unique probability predicted for each worker based on that worker's characteristics. The equation was estimated using a logit specification in order to constrain the predicted probabilities to lie between zero and one. This specification chooses the coefficients on each characteristic that maximize the likelihood of correctly predicting the zeros and ones assigned to the dependent variable in the historic data. The structural form of the model will be:

$$\text{Prob}(Y_i=1) = \frac{e^{\beta X_i}}{1 + e^{\beta X_i}}$$

In this model, $\beta X_i$ equals $\beta_1 + \beta_2 X_{2i} + \beta_3 X_{3i} + \ldots + \beta_n X_{ni}$, where each $X_{ni}$ represents a different worker characteristic and each $\beta_n$ represents the estimated effect of that characteristic on the probability of reemployment difficulty.

Unlike coefficients from a simple linear model, logit model coefficients do not imply a constant effect for each characteristic. The increase in probability for a given characteristic is smaller for workers who already have a very large probability than for workers with probabilities closer to one half. Interpreting the effects of each characteristic on a worker's reemployment difficulty depends on what worker is being analyzed. The effects reported below are based on workers with average characteristics.

Schooling was entered into the equation as a set of categorical dummies rather than as a single variable measured in years. The high school dropout variable was assigned a value of one for each worker represented in the CBO data that did not have
a high school diploma, zero otherwise. Similar variables measured whether the worker had a diploma but no college, some college but no degree, and a college degree or more. This set of variables measured a different effect for each level of schooling. Had years of schooling simply been entered as a single variable, that would imply every additional year of schooling would have the same effect on the probability of being unemployed over six months, and the model would have been less powerful.

The coefficients on education imply the probability of reemployment difficulty would be 8.7 points higher for a person without a high school diploma compared to someone with a diploma. A person with some college would have a probability 9.2 points lower than a person with just a diploma. The total change in probability between a person with no diploma and a person with some college is therefore 17.9 points. The probability of reemployment difficulty is 3.7 points lower for a person with a college degree or more compared to someone with a only a diploma. The effect of having a college degree or more is actually smaller than the effect of having only a few years of college. The finding could reflect the fact that those workers with relatively high education are competing in more narrow job markets. This model is consistent with studies described above that show workers' difficulty in finding a new job increases with lower education levels, particularly for workers with no high school diploma.

A similar set of variables was entered to described workers' tenure. These variables measured whether a worker had less than three years of tenure, three to five years, six to nine years, or ten or more years. As seen in Table 1, not only does additional tenure tend to increase reemployment difficulty, but the size of this effect increases as tenure grows. A worker with three to five years of tenure would have a probability of reemployment difficulty 5.8 points greater than a worker with less than three years of tenure. A worker with six to nine years of tenure would have a probability 8.5 points greater, and a worker with ten or more years would have a probability 12 points greater.
Tenure is positively related to reemployment difficulty because it measures job-specific human capital. Workers who have accumulated most of their qualifications while working for a single firm have developed some skills that are uniquely valuable to that particular company, and may have difficulty finding demand for those skills at other companies. This finding is reported in several studies mentioned earlier.

The state total unemployment rate, and the growth or decline of the worker's pre-UI industry and occupation assess the overall economic environment in which the worker is searching for a job. Such variables build into the model sensitivity to varying labor market conditions, particularly at the state level. Earlier studies have used a set of categorical dummies to estimate the reemployment difficulty associated with each industry, and identify which industries had the strongest effects at the national level. While this approach is appropriate for academic research, it is less desirable for a model applied at the state level. Industry composition varies greatly across states and over time. Applying nationally determined industry screens at the state level could lead to some industry screens that are not sensitive enough to differences in state labor markets, or that become outdated over time.

Rather than estimating the reemployment difficulty associated with being from a particular industry, the proposed estimation is based on the percent employment change in the worker's industry for his or her state, whatever that industry is. Industry categories consist of mining; construction; durable manufacturing; nondurables; transportation and public utilities; wholesale trade; retail trade; finance, insurance and real estate; services; and government. This choice of industry detail was based in part on data availability, concerns for future resources needed to collect the data, and concerns for the accuracy of more disaggregated industry data. Because employment change by industry is measured at the state level, the model is sensitive to each state's growing and declining industries.
The model parameters presented in Table 1 imply that a worker's predicted probability of reemployment difficulty will rise by about half a point for every percentage point decline in his or her industry. For example, a 10 percent employment drop in a worker's industry would raise that worker's predicted probability by roughly 4.4 points.

Due to data limitations, the impact of declining occupations could only be measured at the national level. Employment change by occupation was measured for managerial and profession specialty; technical, sales, and administrative support; service occupations; precision production, craft and repair; operators, fabricators and laborers; and farming, forestry, and fishing. This level of aggregation was chosen for reasons similar to those described above. This component of the model will be sensitive to yearly changes in declining occupations at the national level and represents an important improvement over the dummy variable approach described above. While the model will not be sensitive to changes in occupation mix across states, the model captures one of the most important sources of state variation—changes in industry mix.

The employment change by occupation is entered as a dummy variable, assigned a value of 1 if the employment change is positive, zero otherwise. This variable was a stronger predictor than the percent change itself. The predicted probability of reemployment difficulty would be 4.2 points higher for a worker from an occupation that is declining.

Because the CBO data only indicated the year of the worker's layoff, and not the month, the most timely measures of employment change by industry and occupation that could be entered were the percent changes during the previous calendar year. Policy makers

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11 BLS staff indicated that state level occupation data could only be obtained by contacting individual states, which was not feasible given the scheduling of the profiling initiative. State level occupation data may be available for future estimations of reemployment data.
may choose to update this data more often, but the percent changes should still be based on a full twelve months of data to prevent seasonality.

The state total unemployment rate also increases the model's sensitivity to varying state economic conditions. While an unemployed worker with given characteristics may have little trouble in a state with low unemployment, that same worker might have much greater difficulty in a state with high unemployment. The model will target a greater proportion of unemployed workers as a state's unemployment rate rises. The predicted probabilities assigned to workers from a particular state will rise by 3.6 points for every percentage point increase in the state unemployment rate. As mentioned above, this ability of the model to adjust to varying state economic conditions will allow the state to make more informed decisions as to the appropriate number of dislocated workers to target.

As mentioned above, only variables that are statistically significant are included in the model. The dummy variable for having a college degree was significant at the 10 percent level. All other variables were significant at the five percent level or better. Including the categorical dummies for tenure and schooling, the model contains 11 variables, but it is important to remember that only seven data items need to be collected. The separation of schooling and tenure into categorical dummies will be performed by the model software.

It is also important to remember that this model was constructed as a predictive tool, not as a structural equation. The coefficients on some variables do not correctly measure the effect of that variable due to factors such as omitted variable bias and endogeneity. The goal was to maximize the overall predictive power of the model, while still addressing the policy constraints described earlier.
OTHER CHARACTERISTICS OF STRUCTURAL UNEMPLOYMENT

Several other characteristics were analyzed, even though they were not included in the final model. Some of these characteristics were not found to be strong predictors. Other variables were significant predictors but had inappropriate policy implications.

The columns of Table 2 show the effect of dropping different variables from the equation. The final model is depicted in column five. The first observation evident from Table 2 is that the coefficients are fairly robust, meaning the estimated effects associated with various characteristics are similar for all equation specifications. This fact strengthens their statistical validity. Comparing the Log Likelihood measure indicates the change in statistical significance associated with dropping certain variables. The measure Percent Accurate provides an indication of the size of the effect from a programmatic standpoint\(^{12}\). In addition, the \(R^2\) from a linear estimation of unemployment duration is reported because some people find this measure of fit more intuitive.

The first column contains most of the variables described earlier, plus variables measuring age, ethnicity, gender, whether the worker’s plant closed or job was abolished, and a series of dummy variables representing the year the worker was laid-off. All variables except JOB ABOLISHED, SIC EMP CHNG (NATIONAL), COLLEGE DEGREE, and 1981 through 1987 dummies were statistically significant at the five percent level or better. The next column contains all of these variables except measures of age, ethnicity and gender. The effect of removing these three variables from the equation will be discussed below in a separate section.

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\(^{12}\) This measure shows how many observations would be correctly included or excluded from the target group, assuming everyone with a predicted probability greater than 0.5 would be targeted.
The third column shows the effect of removing the variables Plant Closed and Job Abolished. As evidenced by the CBO study, Plant Closed was significant and negative, indicating that workers from closed plants were more certain of their need to search for new jobs than those unemployed because of slack work. However, the inclusion of these variables in the model would imply targeting those workers from closed plants to a lesser extent, and this is not in the spirit of the profiling initiative. Furthermore, while the improvement in fit associated with these two variables was statistically significant (evidenced by the change in $-2 \log$ Likelihood), the improvement was not large in a programmatic sense. The accuracy dropped from 65.3 percent to 64.9 percent when these variables were excluded. The $R^2$ associated with the linear estimation dropped by only .002. Therefore these variables were dropped from the model.

A comparison of the third and fourth columns shows the effect of removing the yearly dummy variables from the equation. These yearly dummies measure whether a worker's probability of reemployment difficulty depends on the year in which the layoff occurred, and whether the effect for each year is significantly different from the effect for 1988 (the omitted year).

Not surprisingly, the results show that the probability of reemployment difficulty for a worker laid off in 1990 would be considerably higher than that for a worker laid off in 1988. This is consistent with the results presented earlier regarding data selection. As Table 2 shows, removing these variables caused the most significant drop in $-2 \log$ Likelihood. The findings indicate that there is some source of yearly variation not captured by the model. As mentioned above, given this weakness in the model, it would be more appropriate to use a full ten years of data to estimate the model rather than data from just 1988, the lowest point in structural unemployment.

The final model is presented in column five. In this specification, the measure of SIC employment change at the national level was dropped. The amount of accuracy added by this variable
was not deemed large enough to justify adding it to the model. The dummy variable for growing industries at the state level was replaced with the actual percent change in employment by industry. It was felt that using the actual percent change would be more sensitive to those states with particularly large decreases in various industries. While the $R^2$ associated with this linear estimation is only .09277, the estimation explains significantly more variance than a specification based solely on tenure. Linear specifications containing only a dummy variable for tenure greater than three years, not shown, generated an $R^2$ of only .01. This is shows that the proposed profiling model would be more accurate than profiling initiatives based solely on permanent separation and a tenure screen.

The final column measures the effect of dropping the measures of declining industries and occupations. The relatively small drop in $R^2$ associated with dropping these variables indicates that they are not the most statistically significant variables in the model, but they are important because they increase the sensitivity of the model to state economies, and help the model adjust to future trends in structural unemployment that may not have been present in the historic data.

There were other variables, not contained in the CBO data set, that Mathematica found to be significant. In particular, workers without a working spouse or workers with dependents tended to have shorter unemployment durations. This reflects the fact that those workers with greater financial need return to work faster. These variables were statistically significant predictors of reemployment difficulty. However, including such variables would imply targeting workers with greater financial need to a lesser extent, and this is not in the spirit of the profiling initiative.

Finally, an alternative measure of dislocated worker was considered as the dependent variable. The alternative dependent variable was assigned a value of 1 if the worker was unemployed over six months, or suffered an earnings loss of at least 20 percent when taking his or her first post-UI job. This measure
would have included fully 75 percent of the UI population in the target group, nearly double that of the first measure of reemployment difficulty. The coefficients on the tenure variables increased significantly, indicating that many of the additional workers who suffered earnings losses were higher tenured workers, possibly with higher salaries. Given the goal to target a population significantly lower than 75 percent of UI claimants, the probability threshold would have to be set very high if this model were used, straining the accuracy of the model. It was decided that the first measure of reemployment difficulty would remain in the model.

It would have been desirable to include a measure of skill in addition to the schooling variables. Schooling is an important variable in the model because it provides a measure of basic qualifications. Many jobs may require at least a high school diploma or at least a college degree. But there are differences in literacy, math and computer skills not reflected in years of schooling that may also affect a worker's difficulty in finding a new job.

Mamoru Ishikawa reports that literacy scores had a statistically significant impact on hourly wages among UI job seekers. He found that for each one point increase in literacy scores, measured on a scale of one to 500, hourly wages increased by 0.1 percent.\textsuperscript{13} Unfortunately, it would not be possible to measure the literacy of each UI applicant. Ishikawa also studied the determinants of literacy, and it was hoped that the variables used to profile literacy could be incorporated into the dislocated worker profiling model. However, this study included variables on newspaper reading, television watching, and the importance of reading, writing and mathematics at the former workplace. These variables were either inappropriate for the profiling initiative or unavailable in the data sets described above.

\textsuperscript{13} See Ishikawa, 1992.
In addition, various measures of prior earnings and interaction terms for earnings and education were entered into the equation as a proxy for skill level. Mathematica found a dummy variable for low-wage workers without a high school diploma to be significant but small. However, various measures of earnings were not significant in the estimation described above and were not included in the final specification of the profiling model.

THE EFFECTS OF AGE, ETHNICITY, AND GENDER

Particular attention was paid to the effects of age, ethnicity and gender on the probability of reemployment difficulty. It was concluded that using these variables in the estimation was inappropriate; attorneys for the Justice Department concurred and these variables were not included in the model. Nonetheless, it was important to analyze the implications of omitting the variables.

Older workers, minorities and women have been shown to face significantly higher probabilities of reemployment difficulty. There are three ways these variables could be treated. A researcher could include these variables in the equation and include their effects when measuring the total probability of reemployment difficulty. A researcher could also include these variables in the equation as control variables but only measure the probability associated with the other characteristics. Finally, the researcher could exclude these variables from the estimation altogether.

The first treatment implies measuring the effects associated with age, ethnicity and gender and including these effects in the calculated probability. The second treatment implies measuring the effects of these variables and explicitly excluding these effects from the calculated probability. The third treatment, used in the proposed model, implies allowing the effects of age, ethnicity and gender to indirectly affect the calculated probability of reemployment difficulty through omitted variable bias. The bias
introduced by omitting variables is very complex and depends not only on the effects of the omitted variables, but also on the correlations between the omitted variables and the included variables.

Results showed that while the omitted variable bias did affect many groups of people differently, the effects were generally very small. Workers' predicted probabilities were largely the same whether age, ethnicity and gender were included in the equation or not. The change in predicted probability introduced by the bias was less than one point in most cases and greater than five points for only 3.4 percent of the sample.

The omitted variable bias would tend to raise the predicted probabilities of higher tenured workers and older workers, and lower the predicted probabilities of workers with higher education. This is because age has a strong positive correlation with tenure. When age is dropped from the equation, the coefficient on tenure increases substantially to absorb the age effect. This can be seen by comparing the tenure coefficients in columns one and two in Table 2. Omitting gender and ethnicity from the equation biased the coefficients on higher education downward because gender and ethnicity are negatively correlated with higher education.\textsuperscript{14} As mentioned above, however, these changes were negligible.

PROGRAM OUTCOME MEASURES

In addition to the measures of statistical fit described earlier, it is important to discuss the likely program outcomes associated with using this model. The model was used to profile workers surveyed in the historic CBO data to see how accurate the model was in targeting workers who were unemployed over six months. Chart 1 compares the outcomes for the proposed model with two other

\textsuperscript{14} Omitting gender also biased the coefficient on blue collar occupations downward, a variable from an earlier model, for similar reasons.
profiling methods.

The first bar represents the total UI population. The second bar represents the group targeted by simply excluding those workers on recall. The third bar shows the group that would be targeted as the result of excluding those on recall and those with less than three years of tenure. (This is similar to the profiling method used in the New Jersey demonstration project.) The final bar depicts the group of workers that would be targeted as the result of using the model described above. The shaded portion of each bar represents the portion of targeted workers who actually had serious reemployment difficulty (those workers unemployed over six months.)

This chart shows three important measures of program outcome. The size of the bar for each profiling method measures the size of the selected target group relative to the total UI population. It indicates how effective the profiling methods are in narrowing the target group to a size that is feasible to serve from an operational perspective.

For each profiling method, the ratio of the gray portion to the white portion measures how many workers in the group targeted by the profiling method experienced serious reemployment difficulty. This indicates what portion of the targeted group had serious need of the reemployment services to which they would be referred. These percentages are shown in Chart 1 for easy comparison.

Finally, the size of the gray area for each profiling method compared to the size of the gray area for the total UI population shows what portion of all permanently separated workers unemployed over six months would be served by each method.

As Chart 1 shows, simply screening out those workers who are on recall would include fully 75 percent of the total UI population in the target group. Given that it would not be feasible to effectively serve a target group this large, this method is not a realistic option.

Using the tenure screen in addition to the recall screen narrows the targeted population to 42 percent of the total UI
population. Chart 1 shows that of those workers targeted by this method, 45 percent would be unemployed more than six months. The method would have served 62 percent of all permanently separated UI recipients who were unemployed over six months.

The fourth bar shows the increase in targeting accuracy resulting from the proposed model. The model narrows the target group to 30 percent of the total UI population, while targeting a more accurate sample of workers. Of the group targeted by the model, 55 percent were unemployed over six months. This model would have served 53 percent of all permanently separated UI recipients unemployed over six months.

These figures assume a recall rate of 25 percent, the 1992 rate estimated by BLS. This is the lowest recall rate since 1967. As recall rates increase, permanently separated workers with reemployment difficulty will make up a smaller portion of the total UI population. Using the model to draw a 30 percent sample of the UI population would therefore include a greater portion of the intended target group as the recall rate increases. Using the model to profile workers identified in the 1988 Mathematica survey, when the recall rate was about 49 percent, indicates that about 60 percent of permanently separated workers unemployed over six months would have been targeted by the model.

SETTING THE PROBABILITY THRESHOLD

As described above, the level chosen for the probability threshold directly affects the size of the program. The probability threshold used to target the 30 percent sample described for the CBO data was 0.45. This finding is confirmed by the Mathematica data as well. Setting the threshold below this level would target a sample larger than 30 percent of the total UI population. In addition, as the threshold is lowered, an increasing proportion of the targeted group would be workers without "serious reemployment difficulty" (unemployed less than six weeks). Of the additional workers targeted by lowering the threshold

154.
below 0.40, 60 percent would be unemployed less than six months. It would therefore be best to choose a threshold above 0.40.

The CBO data also indicate it would also be best to choose a threshold below 0.50. This would target a group equal to 20 percent of the UI population. Of the workers excluded by setting the threshold higher than 0.50, over half would be unemployed at least six months. The proper threshold in each state will depend on the desired size of the target group and the state's demographics. It is recommended that the threshold be set between 0.40 and 0.50. As mentioned above, for a given threshold, the state unemployment variable will adjust the size of the targeted population as the state's economy changes. The addition of state unemployment rates will enable the model to help states make more informed decisions as to the appropriate size of the targeted population.

POSSIBLE DATA SOURCES FOR INDUSTRY AND OCCUPATIONAL EMPLOYMENT

Currently it would appear that the best data source for state employment levels by industry would be the Current Establishment Survey, CES 790. This data is collected by SESAs and records SIC employment at the three-digit level. This was the source of SIC employment used for the estimation of the model.

A possible data source for employment by occupation would be the Occupation Employment Survey or OES. This data is also collected by SESAs and measures occupational employment at the three-digit level for Standard Occupation Classifications (SOC). The data would be consistent with the SOC occupation categories used to estimate the model. States that currently classify a claimant's occupation according to DOT codes could continue to do so, as long as they classified the claimant at the two-digit level. The claimant's two-digit DOT code could then be translated into a one-digit SOC code, allowing the claimant's occupation to be matched to the aggregate employment change by occupation. (This translation from DOT to SOC could easily be done by the computer
program used for the profiling model, so the staff entering the claimant's data would only have to deal with DOT codes.)

CONCLUSION AND CAVEATS

The profiling model basically entails collecting seven pieces of data. The initial claimant will be asked whether he or she is on recall or has a union hiring hall agreement. If the claimant answers no to both questions, he or she will also be asked his or her years of schooling and tenure, and pre-layoff industry and occupation. The staff member would then enter the years for schooling and tenure and SIC and DOT codes into the computer.

The summary data, including state unemployment rates and employment changes by industry and occupation would already reside in the software, and would have to be updated at least once a year, preferable more often. The probability threshold would also reside in the model software, and would be updated at set intervals. The software would then calculate each worker's predicted probability and indicate whether the worker should be referred to job search assistance services.

While this method is somewhat more complex than earlier profiling methods, it provides a more comprehensive assessment of a worker's likelihood of reemployment difficulties. Limiting the profiling approach to the use of permanent separation and/or tenure screens alone would not build in sensitivity to state employment conditions or flexibility regarding program size. Given the goal of profiling, to target dislocated workers for early referral while narrowing the target group to a feasible size, the model described above provides a more accurate, and flexible method to accomplish this. The model has met the criteria for statistical significance, but also has addressed the unique policy constraints facing a model that will be implemented at the state level.

As mentioned above, the model is more accurate than a simple tenure screen, both measured in terms of program outcomes and statistical fit. However, while the model represents an
improvement over earlier profiling methods, it is important to keep this improvement in perspective. There are many factors that affect the outcome of a worker's job search activity that cannot be easily measured—a worker's attitude, networking skills, personality, and just plain luck to name a few. In addition, the outcome of a worker's job search activity depends on events that have not yet occurred, such as future economic trends during the worker's unemployment spell. The effect of unmeasurable worker characteristics and future events on reemployment outcomes cannot be captured in a statistical model. In fact, prior research has shown that 75 to 89 percent of the variation in reemployment outcomes is due to these unmeasurable factors.\textsuperscript{15} For example, a study of reemployment outcomes in Massachusetts, estimated by Benus, Et al., explained only 11 percent of the variance in unemployment duration.

The proposed model only captures the effect of those measurable characteristics found to be most important, and explains about 10 percent of the variation in reemployment outcomes. This means that for some workers, the characteristics measured by the model may indicate a very high probability of reemployment difficulty, while their total combination of measured and unmeasured characteristics may give them a very low probability. The model will target some workers with little need of reemployment services, and fail to target other workers with great need.

Nonetheless, while the proposed model cannot estimate the effect of luck and other unmeasured characteristics, it does capture likelihood of reemployment difficulty attributable to those characteristics most traditionally associated with the concept of structural unemployment, e.g. education, tenure, occupation, industry and state economic conditions. The proposed national model is nearly as accurate as the state-specific estimation for Massachusetts (an $R^2$ of 0.09 compared to 0.11) while at the same

\textsuperscript{15} See, for example, Corson and Dynarski, 1990 and Benus Et al., 1992.
time building in greater sensitivity to policy and program constraints.¹⁶

One possible way to increase the accuracy of the profiling program is to reexamine those initial claimants not targeted by the model. Those workers who are still unemployed, say, four months after their initial claim, could also be referred to job search assistance services. This model could be viewed as one of several outreach mechanisms for dislocated workers.

It is also important to note that the appropriateness of this model depends on several factors. As mentioned earlier, this model is only appropriate given the need to target a population significantly less than half the total UI population. The value of the model also depends on the quality of reemployment services received by the targeted workers, and the supply of jobs available to the dislocated workers.

¹⁶ For example, while the number of dependents was included as an explanatory variable in the Massachusetts estimation, it was excluded from the proposed model because it implied targeting families with more dependents to a lesser extent. In addition, the Massachusetts estimation is based on fixed industry and occupation variables, while the proposed model builds in greater flexibility to changes in declining industries and occupations.
BIBLIOGRAPHY


Ishikawa, Mamoru. "Determinants of Literacy," from Workplace Literacy and the Nation's Unemployed Workers. Forthcoming.


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1 Dependent variable is assigned value of 1 if unemployed at least six months, 0 otherwise. ***** identifies omitted categories for dummy variables. Sample covered 1981 to 1990 and contained 5062 observations.

2 Evaluated at mean of independent variable.

3 Percent change in employment by industry, measured at the state level for the following industries: mining; construction; durables; nondurables; public transportation and utilities, wholesale trade; retail trade; finance, insurance and real estate; services; and government. Based on annual change during previous year.

4 Variable is assigned value of 1 if national employment change for worker’s occupation is positive, 0 if negative. Occupation employment was measured for the following categories: managerial and professional; technical, sales and administrative support; service; precision production, craft and repair; and operators, fabricators and laborers; Based on annual change during previous year as indicated in Employment and Earnings annual summaries.
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1 Dependent variable is assigned value of 1 if unemployed at least six months, 0 otherwise. ******* identifies omitted categories for dummy variables. Sample covered 1981 to 1990 and contained 5062 observations.
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\( ^2 \) A linear estimation of unemployment duration based only on tenure greater than three years, not shown, had an \( R^2 \) of .01.
DIRECTIVE: UIS INFORMATION BULLETIN NO. 11-94

TO: ALL REGIONAL ADMINISTRATORS

FROM: MARY ANN WYRSCH
Director
Unemployment Insurance Service

SUBJECT: The Worker Profiling and Reemployment Services System: Identification Methods, Test State Analyses, and Provisions of Technical Assistance

The attached paper on the above subject describes the identification methods, statistical analyses, and technical assistance strategy for the development of statistical models and characteristic screens. These processes are the first steps in the Worker Profiling and Reemployment Services (WP/RS) System described in Field Memorandum No. 35-94 (Implementation of a System of Profiling Unemployment Insurance (UI) Claimants and Providing Them with Reemployment Services), and will be used to identify UI claimants who are likely to exhaust their benefits and therefore are likely to need reemployment services.

The information provided should prove useful to all Regional Office staff and State Employment Security Agencies (SESAs) in developing the identification components of their WP/RS Systems.

Attachment
The Worker Profiling and Reemployment Services System:
Identification Methods, Test State Analyses, and Provisions of Technical Assistance

U.S. Department of Labor
Employment and Training Administration
Unemployment Insurance Service
May 3, 1994

165.
INTRODUCTION

On November 24, 1993, P.L. 103-152 (The Extended Unemployment Compensation Amendments of 1993) was enacted. It included provisions that require States to establish and utilize a system of profiling all new claimants for regular compensation that:

"A) identifies which claimants will be likely to exhaust regular compensation and will need job search assistance services to make a successful transition to new employment;

B) refers claimants identified pursuant to [A] to reemployment services, such as job search assistance services, ...;

C) collects follow-up information relating to the services received by such claimants and the employment outcomes for such claimants subsequent to receiving such services and utilizes such information in making identifications pursuant to [A]; and

D) meets such other requirements as the Secretary of Labor determines are appropriate."

The U.S. Department of Labor plans to provide technical assistance (TA) with respect to the entire Worker Profiling and Reemployment Services (WP/RS) system; the Unemployment Insurance Service (UIS) plans to provide technical assistance (TA) with respect to the identification portion of the larger system. As such, this paper addresses: 1) the development and implementation of two claimant identification methods -- statistical models and characteristic screens; 2) a comparison of these two approaches to identification, and 3) how UIS plans to provide technical assistance to the States.

UIS' TA will cover the claimant identification process through the point of referral to services; such TA will not specifically include reemployment services, but will include certain procedures and methods that will facilitate the feedback of information from reemployment service providers to UI. Since the identification component of the WP/RS system needs to be in place before the feedback mechanism, the identification portion is the focus of this paper. Further issuances will address the reemployment services and feedback components of the WP/RS system.

TA for the reemployment services portion of the WP/RS system is the joint responsibility of UIS, the Employment Service (ES) and Office of Work Base Learning (OWBL) entities, as well as the One Stop Career Centers (OSCC) Team. The reemployment assistance approach has been jointly developed by the relevant programs of the Employment and Training Administration (ETA) and is expected to follow the procedures outlined in Appendix E of Field
Memorandum 35-94, "Implementation of a System of Profiling UI Claimants and Providing Them with Reemployment Services".

PART I.- BACKGROUND: PROFILING AND REEMPLOYMENT SERVICES SYSTEM

A. System Goals

The goal of a WP/RS system is to assist the customer by:

(1) identifying claimants who are likely to exhaust their benefits and need reemployment services early in their unemployment spells;

(2) linking selected claimants with reemployment services appropriate to their individual needs; and

(3) promoting an earlier return to the workforce.

B. Role of the Federal Partner

(1) The Employment and Training Administration (ETA) is charged with the responsibility of providing direction, guidance, and technical assistance to States in implementing the WP/RS initiative. To this end, guidance and direction have been made available to States through a number of Federal issuances:

- Field Memorandum (FM) 35-94, "Implementation of a System of Profiling UI Claimants and Providing Them with Reemployment Services";

- Unemployment Insurance Program Letter (UIPL) No. 45-93, "Profiling of Unemployment Insurance Claimants";


- UIS Information Bulletin No. 4-94, Profiling Model Paper - Profiling Dislocated Workers for Early Referral to Reemployment Services;

- Unemployment Insurance Occasional Paper 89-3, The New Jersey Unemployment Insurance Reemployment Demonstration Project;

- Unemployment Insurance Occasional Paper 91-1, The New Jersey Unemployment Insurance Reemployment Demonstration Project Follow-Up Report; and

167.
(2) Technical assistance, described in Part II of this paper, will be provided to States to facilitate the analysis, design, and implementation of the claimant identification portion of the WP/RS system.

(3) Each State agency that administers unemployment compensation is responsible for implementing the identification and referral portion of the system defined in P.L. 103-152; however, the system must also be coordinated with the agencies or offices that are responsible for providing reemployment services. Entities such as labor market information (LMI) units within the SESAs or other government agencies responsible for the development and publication of labor market information also can be sources of knowledge, experience and data and can facilitate the development of a successful profiling identification system.

PART II - IDENTIFICATION SYSTEMS AND STRATEGIES FOR PROVIDING TECHNICAL ASSISTANCE (TA)

UIS has resources available to assist States in developing and implementing the identification portion of the WP/RS system. Assistance will be available in the areas of statistics, econometric modeling, systems analysis and design, and computer programming. The identification component can be implemented using either of two methodologies: characteristic screens or a statistical model. Though the Department encourages the development of a statistical model using State-specific data, it will support the use of characteristic screens; therefore, technical assistance will be geared toward helping States work through the development and implementation of either identification method.

A. Characteristic Screens. Characteristic screens have been used successfully by States to identify UI claimants for referral to reemployment services. With characteristic screens, each identifying data element is used as a decision variable—yes or no, in or out—to screen claimants either into or out of the target group of likely benefit exhaustees. The use of such screens was discussed in detail in "The New Jersey Unemployment Insurance Reemployment Demonstration Project" and the New Jersey

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1 As explained in Field Memorandum 35-94, the process of using a statistical model actually includes the use of several "initial screens" in order to identify those claimants who are permanently separated.
study's follow-up report (UI Occasional Papers 89-3 and 91-1, respectively); also, the Technical Assistance Guide (TAG, UIPL 16-90) that was issued in conjunction with the New Jersey study demonstrates how characteristic screens were used to identify UI claimants who were likely to exhaust their benefits.

In accordance with FM 35-94, some of the data elements that were used in the New Jersey study may currently be useful in developing a characteristic screening methodology. It is important to remember that, as specified in FM 35-94, the current profiling initiative requires that both permanent separation and the likelihood of long-term unemployment be inherent in any claimant identification system; therefore, characteristic screens or data elements have to be used that relate to these two conditions. This requirement is, in part, reflective of the fact that individuals referred to reemployment services after being identified as needing such services will also be considered EDWAA-eligible. The written reports and TAG for the New Jersey study will prove useful in providing a discussion and general framework for those States that opt to develop and implement a characteristic screening methodology. States that would like to have any of the written materials from the New Jersey study should contact the appropriate Regional Office.

B. Statistical models. The use of a statistical model involves a process that considers all of the identifying data elements simultaneously. With this method, each data element receives a specific weight known as a "coefficient". These elements are then combined in an equation that generates a unique probability of UI benefit exhaustion for each claimant—a score that reflects a weighted average of all of the claimant's characteristics combined. Those claimants whose estimated probability scores are the highest are likely to have the greatest likelihood of benefit exhaustion and therefore have the greatest need for reemployment services, while those whose scores are the lowest are least likely to need such services.

While no specific guidelines have been set with respect to what statistical equation or procedure has to be used to develop a statistical model, all UIS analyses have been conducted through the use of the "logistic regression" or "logit" procedure. A methodology that is fairly common in statistical analyses, this procedure enables one to examine the degree to which each data element is linked to UI benefit exhaustion and facilitates the selection of those data elements that have the most predictive power. This ensures that the statistical model uses UI benefit exhaustion as its focal point and is in harmony with the conditions set forth in Public Law 103-152.

Research indicates that a statistical model is a more efficient identification mechanism than characteristic screens because it
is more responsive to variations among sub-state localities and it provides a more predictive means for selection and referral of the claimants most in need of services. (see Appendix A, Results of Test-State Analysis). The use of a statistical model can be of assistance to States in matching the flow of dislocated UI claimants to available reemployment services. It should be emphasized that model development is an ongoing process; those States that implement a statistical model will find that, as they become more familiar with it and they are able to see how it functions operationally, they will need to adjust the model over time. Model adjustment may be needed to reflect a change in economic conditions, a change to more predictive data elements than the ones initially used, or a change resulting more efficiently identifying the target group of permanently separated UI claimants who are likely to exhaust benefits and are likely to experience long-term unemployment.

There are two separate phases involved in using a statistical model: model development and model operation. The Development Phase includes all processes aimed at developing a statistically, operationally, and legally acceptable identification model. The Operational Phase includes all processes involved in using this model to identify UI claimants as part of a WP/RS system. After a period of time using the operational model, the model must be evaluated and refined as needed.

1. Model Development Phase

(1) Inputs and Prerequisites

(a) Initially, some States will be able to implement a WP/RS system using a statistical model, while others may not have the historical data available and may have to use characteristic screens. The reason for this is that statistical model development requires as input at least one year's worth of recent historical data containing both claimant-specific data elements and labor market information; some States will not have a year's worth of data available and will have to acquire it over time.

The historical data set is used to construct a statistical model which will subsequently be used as the identification mechanism in the WP/RS system. A year's worth of data is needed in order to "smooth" or lessen the effects of seasonal variations. The historical data may be acquired and merged from multiple sources. The timeliness of the data collection is not as significant to the Development Phase as it is to the Operational Phase.

Aside from the "Prohibited Data Elements" outlined in Field Memo 35-94, all data elements considered potentially useful predictors of UI benefit exhaustion may be contained in the
historical data set for testing purposes. This includes any or all of the "Key Data Elements" mentioned in FM 35-94. Generally, this data would come from UI claimant and ES registration files, and from labor market information (LMI) units or sources such as the State LMI agency or the Bureau of Labor Statistics (BLS). Claimant identification data such as name and social security number are not necessary components of the historical data set; only those data elements that address permanent separation and that may affect the duration of the unemployment spell are essential.

(b) Seven "Key Data Elements" that were found to be significant in the development of a statistical model were discussed in Field Memo 35-94. The first two of these elements—recall status and the existence of a union hiring hall agreement—are used as "initial screens" on all individuals who have received a first payment. These initial screens are used to include in the profiling data set only those individuals who are permanently separated from their jobs and to omit those who are job-attached. States also may use additional or alternative initial screens.

Though initial screening data elements should be acquired and included in the historical profiling data sets that are established, initial screens will NOT appear in actual statistical model calculations; they serve the important preliminary function of narrowing the claimant population to reflect only those that are members of the target group of permanently separated individuals who are likely to experience long-term unemployment. The remaining five "Key Data Elements"—education, job tenure, pre-UI industry, pre-UI occupation and total unemployment rate—are used in actual model calculations.

It is important to note that individuals that are excluded during the Development Phase of statistical modeling should also be excluded during the Operational Phase. For example, if claimants on recall will be excluded from the Development Phase through the application of the initial screen "recall status" on the data set, they should be excluded from the Operational Phase also. Otherwise, the characteristics of job-attached claimants will be considered by the model, causing the model to lose predictive power.

(c) Personnel with training that includes statistics and econometric analysis should be tasked with conducting the historical data analysis and developing the model. The UI TA Team will also provide assistance in the development of these models. Technical requirements in this area are discussed in Part V.

171.
(2) **Level of Statistical Analysis**

(a) There are several levels of analysis which can be used in developing a statistical profiling model. Typically, the more thorough the analysis, the more accurate a model will be. Factors such as time and historic data availability may understandably constrain the scope of analysis.

(b) A simple analysis could involve a pre-determined decision to use only the "Key Data Elements" specified in Field Memo 35-94 and UIS Information Bulletin 4-94. In this case, experimentation would only involve testing different formats of these data elements (e.g., number of years of education vs. educational categories).

(c) A more in-depth analysis could involve experimenting with many different available State data elements and combinations of data elements to determine the State-specific data elements that are most significant. In this case, experimentation would actually determine which data elements would actually be used in the State’s model, as well as the respective formats of these elements. Such an analysis might include some or all of the "Key Data Elements" but would also include other data elements, labor market information in particular, resident in a state’s historic data sources.

(d) A "test-state" analysis has been conducted by UIS which resembles the "simple" analysis cited above. The results of this research to date are shown in Part IV and Appendix A.

(e) Regardless of the level of analysis used, the output of the model development phase is an equation with a set of coefficients. These coefficients become the basic input for the operational phase.

2. **Operational Phase**

(1) **Inputs**

(a) The Operational Phase may require inputs from several sources. These include, but are not limited to:

1. Data collected from UI initial claims
2. Data from other system components, such as the Employment Service and agencies offering reemployment services funded by EDWAA, if these data are not collected by UI.
3. Coefficients from the model Development Phase.
4. Labor Market Information supplied by either the State LMI agency or the Bureau of Labor Statistics (BLS), as described below.
UIS is working with BLS to facilitate the provision of twelve-month moving average unemployment rates (on a quarterly basis) at the sub-state level, and rate-of-change data for industries and at both the State and sub-State levels and for occupations at the State level. These data are offered to assist States that wish to use it. The BLS rate-of-change data is derived from the same source data used by BLS' LASER (Labor market information Adapted to Skills-based Employment Relationship) system. These data are expected to be available for use in model development by the end of summer, 1994. Information on the availability, format, and delivery of this data will be distributed as it becomes available.

(b) The individual data elements obtained from each source will vary among States. Part IV details the data elements used in the Test State analysis.

(c) Using the production computer language specified by SESA computer standards (such as COBOL), these inputs can be synthesized and used to calculate a probability of benefit exhaustion for each UI claimant profiled during a given time period. The programs used in the Operational Phase need to incorporate the exact equation structure used in the Development Phase, whether this equation is a logit equation or otherwise.

(d) Once probability scores are derived, the profiled claimants can be prioritized according to the these scores and, as detailed in Field Memo 35-94, be referred to reemployment services as resources warrant.

3. **UIS Technical Assistance**

In addition to the TA that will be provided for the development of statistical models and characteristic screens, TA will also be offered in the forms listed below. Requests or suggestions for additional forms of technical assistance will be considered by ETA staff as time and resources allow.

(1) **Papers and Written Materials:** The UI TA Team will assist in the preparation of technical assistance documents to be made available to all States. These will describe the experience of the Test State and the Prototype States and will include written descriptions of methods and processes, lessons learned, and analysis conducted. A UI Information Bulletin incorporating the Test State experience will be issued in August 1994. A Technical Assistance Guide (TAG) incorporating the Prototype States' experience will be issued in November 1994.

(2) **Completed Systems:** The team will facilitate the transfer of completed processing systems or parts of systems from State to State, where all parties agree to the
transfer. All test and demonstration systems developed by the UI TA Team will be available. The UI TA Team may assist in documenting and otherwise preparing system software for transfer. It will serve as a technology broker, bringing together States with similar processing requirements.

(3) **Telephone Assistance:** Members of the UI TA Team will be available by telephone during normal work hours to discuss problems and concerns of States. Questions can also be sent to the TA Team via fax (202-219-8506) or via ETA's e-mail system, attention: Wayne Zajac.

(4) **On-site Visits:** The UI TA Team will be available for limited on-site assistance, working in partnership with SESA staff to design and implement models, systems, and processes.

(5) **Profiling Methods Seminar:** The UI NO plans to offer a seminar covering the methodology involved in developing an optimal state-specific model for use in Worker Profiling. The seminar is scheduled for July 25-29, 1994 in Phoenix, AZ. More information will be distributed as plans for the seminar are finalized.

C. **Phased Technical Assistance Strategy**

(1). **Test State**

As a precursor to working with States on the development of their models, specifications for a "test system" have been developed that demonstrate how a statistical model can work in the States. Furthermore, in order for the Department to gain further knowledge and operational experience beyond "test system" simulations, the State of Maryland volunteered to be a "Test State". The Test State development that is occurring in Maryland will provide the UI TA Team with exposure to potential implementation problems; any such problems that are uncovered in Maryland will be solved directly with Maryland staff. The UI TA Team will then transfer the lessons learned from the "test system", including model development, data flow, and output report products, to the actual operational environment of Maryland. The goal is to gain additional information, knowledge and experience from working in an actual operational environment that can be shared with the Prototype, First and Second Wave States.

(2). **Prototype States**

The UI TA Team will work extensively with the Prototype States, both to facilitate these States' efforts and to gain additional
experience that will be transferred to First and Second Wave States. TA to be given to the Prototype States will include:

(a) **Statistical Model/ Characteristic Screens Development:** TA can be provided to the States in performing the analysis necessary to decide whether to use characteristic screens or statistical models, what data elements are best for that State, and for establishing initial elements and values for data collection. This type of assistance is expected to take place on-site over approximately three or four work days and is likely to include State staff from unemployment insurance, job service, and labor market information offices.

(b) **System Design:** The UI TA Team will be available to work with State staff as part of the technical design effort to solve data flow and process step problems for the initial indentification mechanism of the WP/RS system. This is expected to take place on-site and last approximately four or five work days.

(c) **System Implementation:** The TA Team will be able to assist States with implementation of the identification component by providing resources and experience available to address issues as they arise. Lessons learned in any one State can be transferred to benefit all States. This type of TA could last about three or four days, on-site.

(d) **System Review:** The team can assist State personnel in conducting a post-implementation review of the project and document lessons learned during the project. This will contribute to the pool of experience and knowledge the team will be able to transfer to first and second wave States in their implementation efforts.

(3). **First and Second Wave States**

Following the phased implementation strategy, TA will be offered to first and second wave States to the extent that time and funds allow. States have been asked to identify their estimated needs for assistance in the proposal that will be submitted in response to Field Memo 35-94. Specific requests for technical assistance should be sent to the appropriate DOL Regional Office.

**PART III. EXAMPLE OF DATA ELEMENTS USED IN A WP/RS SYSTEM**

If a statistical model is implemented, two sets of data are required—historic data and current data. The Development Phase, where statistical analysis is being conducted to establish a model, requires **historic data**, while the Operational Phase, where claimants are actually being profiled and referred requires **current data** (if characteristic screens are used, historic data
is not necessary). Historic data, at least one year’s worth, must include complete benefit year data for each claimant. Current data reflects present claimants at the time of their first benefit payment.

A. Claimant Data

Claimant data include elements which have been shown to be predictive of UI benefit exhaustion. In the Operational Phase additional data identifying the individual will be required. Other data, such as service provider information and feedback data for outcome, may be recorded as part of the claimant record system, but is not required as part of the worker profiling portion of the system.

Claimant-specific data used to run the model may include:

- Education level;
- Job Tenure;
- Industry code;
- Occupation code; and
- Area of residence code;

*(The industry, occupation and area codes would be used in tandem with the LMI/BLS data described in Section B below)*.

Claimant identification data used in generating reports may include:

- Social Security Number;
- Name;
- Address; and
- Phone number.

B. LMI/BLS Rate of Change Data

Three pieces of labor market information are used in the Department’s proposed Worker Profiling model. They are: employment change within a claimant’s industry, employment change within a claimant’s occupation, and unemployment rate in a claimant’s sub-state region. These elements need to be available for the time period depicted by the historic data set for use in the Development Phase. These elements also need to be as current as possible for use in the Operation Phase. The LMI data, both historic and current, should be kept as separate tables which can be updated to allow the model to reflect economic changes. Thus, updates will need to be done on a regular basis, perhaps quarterly.

C. Table of Coefficients

176.
The products of the model Development Phase will be a set of coefficients and an equation which uses the coefficients and current data elements to compute each claimant's probability of exhausting his or her benefits. The equation must be coded or programmed into the State computer system. The coefficients should be kept as a separate table of values which can be updated to reflect economic change and refine the model. It is likely that these updates will not need to be done as frequently as the LMI updates.

D. **Service Provider Data**

A State may want the system to automatically produce referral reports and notifications informing claimants of referral to services. The data needed to do so includes:

- UI local office contact name and number;
- Service Provider name and address;
- Service Provider referral agreement capacity; and
- Scheduled date and time of reemployment service session to which claimant is referred.

Systems capable of automatic referrals require agreements be established between UI and the service providers which specify referral flow control, capacity planning and control, holding or waiting periods, etc. Additional software may be required to operationalize automatic referrals. Further issuances will provide technical assistance in these areas.

**PART IV- TEST STATE ANALYSIS**

A. **Background**

The research contained in Unemployment Insurance Information Bulletin 4-94 was the initial basis for recommending the use of a statistical model in State WP/RS systems. Since this research was done using national-level survey data, numerous parties expressed interest in seeing how the model would perform if applied at the state and local levels. Thus, UI TA Team staff at the National Office are in the process of conducting a "Test State" analysis with the State of Maryland to illustrate how a statistical model could be developed and made operational in a State agency. The analysis is basic, using the data elements cited in Field Memo 35-94 to develop a single State-level model. The results of this analysis to date are summarized below, along with a discussion of some operational issues that have been encountered. More detailed results are shown in Appendix A (Results of Test-State Analysis).

B. **Model Development Simulation Using Maryland Data**

(1) Inputs
(a) In the State of Maryland, historic UI and ES files were used as source data for developing the initial Test State model. A one-year time frame that ended seven months prior was designated as the period the analysis should cover. There were 225,000 claimants who filed initial claims within this period. The seven-month lag made it possible to discern with sufficient accuracy whether or not each claimant exhausted his/her basic UI benefits. It was necessary to merge UI and ES data in order to obtain all of the "Key Data Elements" described in FM 35-94, because some of the data elements were resident in the UI database and some were in the ES database (for example, in Maryland, both education and occupation are collected by ES).

(b) A data extraction process was run against the 225,000 records in order to create a sample data set for analysis. The "initial screens" (recall status, union hiring hall, and first UI benefit payment) were incorporated into the extraction process as a means of deleting job-attached and UI-ineligible claimants. This extraction produced a file containing 85,000 records of both UI exhaustees and non-exhaustees. Only data elements being considered for use in predicting UI benefit exhaustion were included in this file. In this case, the elements identified in the National analysis (UI Information Bulletin 4-94) were selected as a starting point. Thus, each claimant's occupation code, industry code, first and last day of work (used to calculate job tenure) years of education, benefit payment amounts, and residence code were the data elements extracted in Maryland.

(c) A sample of approximately 5,000 records would have been statistically sufficient enough to conduct the data analysis in Maryland; however, since a 3.5" floppy disk could hold approximately 17,000 non-compressed records, a 20% random sample of the 85,000-record sub-set was taken, which yielded 17,000 records of exhaustees and non-exhaustees.

(d) A review of the 17,000 records showed that slightly more than half (about 8,900 records) did not contain valid data for one or more of the data elements. Of the records with missing data elements, about 75% appeared to have occurred because the claimant did not register with ES; the remaining 25% were due to a variety of administrative and processing problems. Maryland is changing administrative procedures to minimize these problems in the future, particularly by increasing ES registration rates.

(e) The statistical procedure used to examine the data requires that all records have full data present. This resulted in excluding the 8,900 records with missing data, leaving a sample size of 8,100 exhaustees and non-exhaustees. Both exhaustees and non-exhaustees have to be examined together in order to focus on those characteristics that are correlated with exhaustion, and to determine what claimant characteristics separate the two groups.
(f) The sample of 8,100 records was examined using a procedure known as "logit". This procedure determines the extent to which each data element contributes to UI benefit exhaustion. The logit procedure also allows for comparing the use of different combinations of elements and for using a particular data element in different formats. For example, education may be compared using the number of years of education or using categories such as high school, college, etc.

(2) Maryland Results—Individual Data Elements

This section provides a summary of how the five "Key Data Elements" that appear in the model were treated in the Test State analysis. For a more detailed description of these formats and how they compare to the formats used in UI Information Bulletin 4-94, see Appendix A: "Results of Test State Analysis."

(a) Education level proved to be a very strong predictor of benefit exhaustion; less education suggests a greater probability of exhaustion. Educational categories (i.e. high school diploma, Bachelor's degree, etc.) similar to those shown in UI Information Bulletin 4-94 were shown to be significant predictors of UI benefit exhaustion. A comparison of the data elements used in the Test State analysis and in the National analysis (UI Information Bulletin 4-94) is shown in Appendix A.

(b) Job tenure proved to be a significant predictor of benefit exhaustion, though not as strong as education; longer tenure on the pre-UI job suggests a greater probability of exhaustion. The categories used in the National analysis (0 to 3 years, etc.) did not produce the same effects in the Test State analysis. The Maryland analysis uses the actual number of years of tenure, which produced equal or better results.

(c) Industry employment change proved to be a significant predictor of benefit exhaustion at the sub-state level. The sub-state divisions used were Service Delivery Areas; the industry divisions used were SIC Industry Divisions. The BLS rate-of-change data was used to calculate weighted percent employment changes incorporating these divisions.

(d) BLS data on occupation employment change has not yet been incorporated into the analysis. This is primarily due to the fact that BLS uses the OES coding scheme and Maryland uses the DOT coding scheme. While the intuitive value of occupation employment change is unquestionable, the feasibility of measuring these effects at the state or local level is uncertain until data become available.

(e) Sub-state total unemployment rate was a very strong predictor of exhaustion. As with industry employment change, the sub-state divisions used were Service Delivery Areas.
(3) Results - A Statistical Model vs. Characteristic Screens

(a) The State of Maryland had experience using characteristic screens, offering a basis for comparison of these two methods.

(b) Maryland's screening system had five screens: no recall date, no union hiring hall, first UI payment, separation due to lack of work, and at least 3 years' tenure on pre-UI job. Claimants meeting all these criteria are "screened in"; if they fail to meet even one, they are "screened out." To compare this screening system to the statistical model, both were applied to the historic data set. One comparison was conducted at the state level and five others were conducted at the local-office level. In each comparison, two groups of equal size were targeted, one by the statistical model and one by the characteristic screens. Conclusions are based upon a comparison of these "target groups". Detailed results of these comparisons can be found in Appendix A, "Results of Test State Analysis".

(c) The statistical model proved to be 10 to 25 percent more accurate in targeting UI benefit exhaustees than the characteristic screening system. Characteristics that were strongly associated with UI benefit exhaustion (e.g., lack of a high-school diploma) were more prevalent among claimants in the "model target group" than among claimants in the "screen target group".

C. Model Operation Phase - Maryland

(1) Inputs

(a) Normally, the input records for the Operational Phase will come from initial claims filed in a State during a current period. However, the only data available to UIS for use in the Maryland analysis were the historical data. Therefore, the Operational Phase was simulated using these data. Due to the data constraints, the process of selecting only current-period data was omitted. All other processes were conducted as they would be in a real-world setting.

(b) The data-element formats, equation structure, and coefficients described in Section B above were incorporated into mainframe, batch-operated computer programs written in COBOL. The historic data was loaded onto the mainframe as VSAM data files. This combination comprises the current production environment in Maryland.

(2) Results

(a) The entire sample was "run through" the profiling model, generating exhaustion probability scores for all claimants. Not
all scores are unique; claimants having the same characteristics will derive the same score, creating clusters within the output list when viewed at a state-wide level. However, Maryland distributes data to and delivers services at the local-office level. This clustering effect was found to be negligible when the data were distributed to the local-office level. The number of data elements in the model and the number of discrete values possible for each data element control the degree of clustering. For example, using actual years of tenure produces less clustering than using more limited tenure categories (e.g. 0-3 years, 3-5 years, etc.) Some data elements are more naturally represented as categories, such as education, showing that trade-offs exist in this area.

(b) A sample local office probability list is shown in Appendix B. This list shows how the output of a statistical model could look at the local office level. A list such as this could be generated periodically and used in conjunction with a "Referral Agreement", as specified in FM 35-94, to equate the flow of profiling-related referrals with the supply of available services.

(c) This exercise also underscored the importance of coordination between personnel responsible for model development and personnel responsible for model operation. The data used in the Operational Phase may have to be transformed to fit the specifications of the model. Also, probabilities must be calculated exactly as specified by the equation. For this purpose, it is a useful check to generate probability scores from the same data set using both the statistical package and the operational program. Except for possible variations in rounding, these lists should be identical.

Part V - TECHNICAL ISSUES

A. ADP Issues

(1) Mainframe vs PC

For approximately two decades, a majority of State unemployment insurance systems have been developed and operated in an IBM or compatible mainframe environment and most programs were written in COBOL. Consequently, the model profiling system has been developed to utilize the existing systems as much as possible. The UI TA Team has developed model programs in COBOL utilizing mainframe environments.

However, during the last few years, the technological advancement in computer hardware/software has made it possible to utilize PC's in many applications. Some States UI operations will be or are taking advantage of client/server environments. Therefore, the UI TA Team is also exploring developing alternative model
programs in a PC environment. The UI TA Team will support PC-based profiling systems.

Mainframe computers and personal computers share basic computing characteristics; however, they are still quite different. There are advantages and disadvantages in utilizing mainframe or PC technology. For example, note the following:

(2) Developing the Profiling System in a Mainframe Environment

Advantages:

(a) The existing system can be utilized without structural changes.
(b) Standardization of system is easily accomplished and more cost-effective.
(c) Data storage capacity is much higher than PC client/server structural environment.
(d) Hardware/software professionals are abundant.
(e) Security is more readily attained.
(f) Accessibility is more available from all regions without LAN/WAN connection.

Disadvantages:

(a) Expensive to operate.
(b) Centralized down time - once system is down, nobody can use the computer.
(c) Overloading due to the customer usage/time sharing.
(d) In some States, less responsive to customers.
(e) Changes are sometimes harder to make and take longer.

(3) Developing the profiling system in a PC environment

Advantages:

(a) Operating cost is far less than in mainframe.
(b) Software/hardware are available to provide flexibility.
(c) Downtime of one PC does not affect entire system.

Disadvantages:

(a) Decentralization means less control of access and security.
(b) In some cases, modem-access interrupt phone usage.
(c) Without LAN/WAN connection, the usage of PC is limited.
(d) Data storage capacity is less than the mainframe although the technological advancements are narrowing this gap.

B. Operational Issues
(1) **Data Collection and Availability**

(a) The Operational Phase of Worker Profiling requires that all claimant data elements be available at the time designated for referral processing. Many States do not collect the full set of data elements as part of the UI initial claims process, but often collect some as part of Job Service or Employment Service processing.

(b) For any State-specific claimant identification approach, the full set of data elements must be collected for all initial claimants before Worker Profiling can be done. This will likely require modifications to initial claims forms, data entry screens and processing, and data file structures. The full set of data elements required may vary from State to State. The Maryland statistical model uses union hiring hall status, recall status, education level, job tenure, industry, occupation, and local unemployment rate.

(2) **Mathematical Equation**

The model Development Phase employs a statistical analysis package such as SPSS or SAS to derive the optimum combination of data elements and weight coefficients to comprise the model. The Operational Phase will use a computer programming language such as COBOL and a combination of simple math functions that can be used to replicate the logistic probability function, or logit model, derived in the Development Phase. Care must be taken to implement the formula exactly as derived by the statistical analysis package.

C. **Model Specification Issues**

(1) **Skills Needed to Perform Statistical Analysis**

(a) Personnel with training including statistics and econometric analysis should be tasked with conducting the historic data analysis and developing the model. Experience conducting analyses involving binary dependent variables, logit models and the logistic regression procedure would be preferable. Informal contacts and discussions indicate that some States plan to use universities or outside research organizations to assist in their model development.

(b) Personnel with experience that involves programming and problem-solving with a statistical software package, conducting statistical analyses, and working with large data sets are also needed. This type of background and experience programming in COBOL (or whatever computer language will be used) would be particularly well-suited to developing a model.

(2) **Statistical Analysis Package and Functions**
The process of developing a Profiling model requires iterative evaluation of historical data. Software packages such as SPSS, SAS, LIMDEP and NCSS are available to perform these types of analysis. States with older versions of statistical software may need to upgrade if they plan to use the logistic regression procedure. The test system made use of SPSS, Version 4.0.

APPENDIXES:

A RESULTS OF TEST-STATE ANALYSIS

B TEST STATE PROFILING INITIATIVE REPORT [DRAFT] LOCAL OFFICE 29
APPENDIX A: RESULTS OF TEST-STATE ANALYSIS

This appendix details the format, or specification, of each data element used in building the model from the Test State data. These formats are compared to the formats used in UI Information Bulletin 4-94, "Profiling Dislocated Workers for Early Referral to Reemployment Services", referred to in this Appendix as the "National" analysis.

The Test State analysis disclosed that some of the data elements that appear on the merged UI/ES file should be converted to a form that has greater statistical meaning. For example, education level was stored as number of years of education, but using categories such as high school graduate proved to be more meaningful. In executing the Operational Phase and generating the list shown in Appendix B, data elements were converted to the formats discussed below.

A. Dependent Variable Specification

(1) A statistical model is basically an attempt to explain the behavior of a particular variable. This variable is typically referred to as the "dependent variable".

(2) In the National analysis (UI Info Bulletin 4-94), the dependent variable used to represent UI benefit exhaustion was the duration of each claimant's unemployment spell. For claimants with spells of 6 months or longer, the dependent variable was assigned a value of 1, signifying that the claimant exhausted his/her benefits. For claimants with spells of less than 6 months, the dependent variable was assigned a value of 0, indicating that the claimant did not exhaust his/her benefits.

(3) In the Test State analysis, the dependent variable used to discern UI benefit exhaustion for each historic observation was calculated as follows:

\[
\text{Total Proportion Drawn} = \frac{\text{Paid Benefit Amount}}{\text{Maximum Benefit Amount}}
\]

If the Proportion Drawn was greater than or equal to 1, the dependent variable was assigned a value of 1, signifying that the claimant exhausted his/her basic UI benefits. If the Proportion Drawn was less than 1, the dependent variable was assigned a value of 0, signifying that the claimant did not exhaust his/her basic UI benefits. In this test, it was disclosed that the data may have included EUC amounts and disqualified claimants. Adjustments are being made to correct for this in future testing.

B. Independent Variable Specifications

(1) Education

185.
(a) In the National analysis, education was specified as a series of categories. This format implies that the effects of certain milestones in educational attainment are extremely significant in obtaining reemployment and thus in predicting UI exhaustion. These effects would obscure the effects of individual years, making a variable such as "years of education" an unreliable predictor. The National analysis divided education into the categories shown below:

- H.S. Diploma
- Less than H.S. Diploma
- More than H.S. Diploma, less than Bachelors
- Bachelors Degree or more

(b) In the Test State analysis, education proved to be a very strong predictor of UI benefit exhaustion. After testing different formats and classifications, the following categorical specification was selected:

- H.S. Diploma
- Less than H.S. Diploma
- More than H.S. Diploma, less than Bachelors
- Bachelors
- Masters/PhD

The only difference between this and the National-analysis specification is the separation of claimants with Bachelors Degrees from claimants with Masters Degrees and PhD's. In the Test State analysis, claimants in the latter group showed a significantly lower exhaustion probability than claimants in the former.

(2) Tenure

(a) In the National analysis, tenure was specified in a manner similar to education. This implies that the effects of certain pre-UI job tenure milestones are extremely important in predicting UI exhaustion. The categories are as follows:

- Less than 3 years
- 3-5 years
- 6-9 years
- 10+ years

(b) In the Test State analysis, the above formats could not be statistically confirmed in the area of pre-UI job tenure. Tenure as actual number of years proved slightly more significant than the series of categories; thus, the actual number of years was used.

(3) Industry
(a) In the National analysis, SIC Industry Division codes were used to discern the state-level percent employment change within each claimant's Industry Division. This percent-change value was the actual data element used in the model.

(b) In the Test State analysis, 6-digit SIC codes were converted to Industry Division codes based on standard SIC classifications. These were used to discern the employment change within each claimant's Industry Division during the period covered by the sample. Changes were calculated at both the state level and the SDA level. The state-level change proved insignificant; however, the SDA-level change, provided by BLS, proved to be a significant predictor of UI benefit exhaustion.

(4) Occupation

(a) In the National analysis, 1-digit SOC codes were used to discern the national-level employment change with each claimant's occupation classification. This entered the model as a binary variable; if the occupation was growing, the variable was coded as a 1, and if the occupation was declining, the variable was coded as a 0.

(b) In the Test State analysis, 3-digit DOT codes were converted into 1-digit codes based on Test State classifications. These codes have not yet been used in tandem with labor market information. Occupational employment changes have proven difficult to measure at the state or local level, in part because no standardized coding scheme currently exists. A "crosswalk" between the DOT and OES schemes will eventually be used to facilitate the analysis of occupation employment data from BLS. Currently, occupation enters the model as a series of categories, similar to education. As a whole, these categories are significant in predicting UI exhaustion. The specification is as follows:

- Managerial, technical, professional
- Sales, clerical
- Service occupations
- Farming, fishing, forestry
- Processing occupations
- Machine operators
- Bench Work
- Structural Work
- Miscellaneous

(5) Total Unemployment Rate

(a) In the National analysis, State total unemployment rate (TUR) was included for each claimant, attempting to account for different labor market conditions across States.
(b) Since different labor markets exist within States as well, SDA unemployment rate was included for each claimant in the Test State analysis. FIPS codes based on residence were used to assign claimants to the proper SDA. This variable was very significant in predicting benefit exhaustion at the State level; claimants from high-unemployment areas have higher probabilities of exhaustion.

(c) In an operational environment, services will be available in local areas. For example, in the Test State, services are offered by local offices. Most claimants within a local office have the same SDA code. Thus, this variable was not particularly helpful in identifying claimants at the local level.

(d) However, the Test State system will initially consist of a single State-level model. Omitting the SDA TUR would make this model much less sensitive to local conditions. Thus, for a State-level model, it is desirable to include a measure of sub-state TUR. Furthermore, by having a model that is sensitive to local conditions, managers and analysts will be able to make a better assessment of the operation of both the worker profiling component and the provision of reemployment services between sub-state areas.

Comparison of Target Groups

Six tables are shown on the following pages which compare the compositions of the following groups at the State level and within five local offices:

(1) MODEL- refers to the statistical model described above and in Section V.

(2) SCREEN- refers to the claimants who would be selected by the screening mechanism described in Section V. (In addition to the union hiring hall, recall, and first-pay screens, it requires separation due to lack of work and at least 3 years' tenure.)

In the State-wide comparison, the SCREEN model "targeted" 1,786 of the 8,047 claimants, about 22 percent. Thus, the ranked probability list generated by the model was cut off at the 1,786th observation. These groups, the "screen target group" and the "model target group" were compared to the groups shown below:

(3) SAMPLE- the entire sample of 8,047 claimants

(4) EXSTEES- the 4,249 actual exhaustees in this sample

The same comparison was conducted in five local offices; these results are shown on the following tables. The results show that the model focuses on claimants with characteristics shown to be closely associated with UI benefit exhaustion.

188.
Attachments:

Table 1- Sample and Target Group Percentages- Statewide
Table 2- Sample and Target Group Percentages- Local Office 1
Table 3- Sample and Target Group Percentages- Local Office 2
Table 4- Sample and Target Group Percentages- Local Office 3
Table 5- Sample and Target Group Percentages- Local Office 4
Table 6- Sample and Target Group Percentages- Local Office 5
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This table shows that, in terms of the state-wide sample, the model is more accurate than the characteristic screens in identifying UI benefit exhaustees. The model target group consists of 65% exhaustees, compared to 53% for the screen target group.
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This office is located in an inner-city area with an exceptionally high exhaustion rate of 63%. The model target group contains the same percentage, concentrated among less-educated and long-tenured workers. The screen target group contains a percentage below that of the overall sample, 57%.
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This office is in a high-density, lower-income suburb which contains a university. The model target group contains 61% exhaustees, compared to 49% for the screen target group. The model focuses more on less-tenured workers here than in some other areas, while the screen picks up a high percentage of college graduates, perhaps attributable to the university setting.
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**TENURE%**

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This office is in a high-income suburban area with an exhaustion rate of 46%. The model focuses on high-school graduates, while the screen picks up a great deal of college graduates. Again, the model targets a higher percentage of exhaustees, with 59%.

195.
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*PLEASE NOTE: ALL NAMES, ADDRESSES, AND SOCIAL SECURITY NUMBERS ARE PICTITIOUS*
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*** PLEASE NOTE: ALL NAMES, ADDRESSES, AND SOCIAL SECURITY NUMBERS ARE FICTITIOUS ***
### Profiling Initiative Report (Test)

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*Please note: All names, addresses, and social security numbers are fictitious.*
DIRECTIVE : UIS INFORMATION BULLETIN NO. 15-94

TO : ALL REGIONAL ADMINISTRATORS

FROM : MARY ANN WYRSCH  
        Director  
        Unemployment Insurance Service

SUBJECT : WORKER PROFILING AND REEMPLOYMENT SERVICES TEST  
           STATE: DEVELOPMENT OF THE MARYLAND MODEL

Attached is a copy of the above paper. As part of its role in providing technical assistance to States in implementing worker profiling and reemployment services systems as mandated by Public Law 103-152, the Department of Labor (DOL) and the Maryland Department of Employment and Economic Development (DEED) recently completed the development of an operational profiling system. Maryland was used as a "test State" to prove that the concepts contained in DOL Field Memorandum 35-94 can be developed into an operational system.

The paper focuses on implementation of a profiling mechanism, based on the use of a statistical model and detailed programming specifications. The profiling requirements document is included as an appendix to the paper. The Maryland agency intends to begin using the developed system on an operational basis during the summer of 1994.

This paper is highly recommended for dissemination to Regional Office staff and State staff engaged in the implementation of worker profiling and reemployment services systems.

Inquiries regarding this paper and DOL technical assistance may be addressed to Wayne Zajac, 202-219-5616. Questions on the Maryland profiling mechanism and implementation effort may be addressed to Carol Walter, Maryland Department of Employment and Economic Development (DEED), 410-333-5070.

Attachment
WORKER PROFILING AND REEMPLOYMENT SERVICES TEST STATE:

DEVELOPMENT OF THE MARYLAND MODEL

U.S. Department of Labor
Employment and Training Administration
Unemployment Insurance Service

June 10 1994
WORKER PROFILING AND REEMPLOYMENT SERVICES TEST STATE:
DEVELOPMENT OF THE MARYLAND MODEL

I. Background

This paper expands upon UIS Information Bulletin 11-94 in
describing the methods and procedures used to develop a
statistical profiling model in the State of Maryland. The
research contained in Unemployment Insurance Information Bulletin
4-94, "Profiling Dislocated Workers for Early Referral to
Reemployment Services" was the initial basis for recommending the
use of a statistical model in State Worker Profiling and
Reemployment Services (WP/RS) systems. Since this research was
done using national-level survey data, numerous parties expressed
interest in seeing how the model would perform if applied at
State and local levels using actual administrative data.

Unemployment Insuran&Information Bulletin 11-94, "The Worker
Profiling and Reemployment Services System: Identification
Methods, Test State Analyses, and Provisions of Technical
Assistance" detailed, among other things, the preliminary
findings of the Test State analysis conducted by the Unemployment
Insurance Service (UIS) in conjunction with the Maryland
Department of Economic and Employment Development (DEED).
While UIS Information Bulletin 11-94 reported the results
obtained from analyzing a sample of Maryland's data, this paper
traces the process used to develop the actual model that Maryland
will put into statewide operation in July, 1994. Included with
this chronology are descriptions of several problems and issues
that were encountered in developing the Maryland model, how these
were resolved, and areas of ongoing concern and potential
refinement to the model.

There are two separate phases involved in using a statistical
model: the developmental phase and the operational phase. The
developmental phase includes all processes aimed at developing a
statistically, operationally, and legally acceptable model. The
operational phase includes all processes involved in using this
model to identify UI claimants as part of a WP/RS system. This
paper describes how the developmental phase was coordinated with
the operational phase in Maryland. An interface between these
two phases and the personnel responsible for them is critical to
the successful design and implementation of a WP/RS system. In
Maryland, a detailed set of programming specifications was the
primary vehicle for creating this interface. This approach
represents one way States may ensure that the statistical or
screening model they use to identify dislocated workers is
successfully translated into a functioning system. Maryland has
elected to implement its initial WP/RS system before other States
and will operate this system for the near-term. Maryland will use this system to develop a complete WP/RS system as a "second-wave" State in conformance with the Federal WP/RS initiative.

II. Initial Procedures

A. Preliminary Research

(1) The current version of the Maryland model was the end product of several waves of analysis. The "national" model developed in UIS Information Bulletin 4-94 was used as the starting point for the Maryland Test State project. However, before it could be used in an operational environment, this model needed to be customized to fit Maryland’s data, the dynamics of Maryland’s labor markets, and the requirements of Maryland’s data processing unit.

(2) In order to determine how the national model (in terms of the variables, NOT the actual coefficients) could be adapted to Maryland’s data and labor market dynamics such that State-specific coefficient estimates could be derived, an historic sample of Maryland’s data was assembled and several analyses were conducted. This historic data set covered the period from July 1, 1992 to June 30, 1993; one year of data was used in order to mitigate the effects of seasonality. Benefit exhaustion outcomes could be accurately assessed for Unemployment Insurance (UI) claimants filing in this time period. Since applying the national model to Maryland’s data would require a degree of testing and experimentation, a 20% sample of data was taken for this purpose. Using a smaller data set reduced computer processing time and afforded greater flexibility in conducting the preliminary analyses. UIS Information Bulletin 11-94 summarizes the results of these analyses and describes the model that was the end product. These findings were presented to a panel of UIS actuarial staff and were favorably received.

(3) It was concluded that the 20% sample produced a satisfactory model in terms of the definitions of the variables, for example, defining "education" with categories such as "high school diploma, some college", etc. It was further concluded that the coefficients comprising the model to actually be used in statewide operation should be reestimated using the entire year’s worth of historic data; this would yield a model that best depicted the historic time period. Thus, the structure of the Maryland model was developed through analysis of a 20% sample of the historic data set. However, developing the current model to be used in the operational phase entailed reestimating the model’s coefficients using the entire historic data set.

(4) This progression fit very well with the administrative procedures in place in Maryland. The Maryland data processing unit requires that all programming specifications be written and

209.
approved by all involved parties prior to the commencement of programming. Such an arrangement does not lend itself to the trial-and-error experimentation that frequently accompanies the development of a statistical model. Thus, using the smaller sample for initial experimentation and definition of the model's structure allowed for early approval of the specifications. Then, system programming and estimation of the current model could take place concurrently. The use of the specifications proved to be a critical step in making a successful transition from system design to system implementation in the Maryland Test State project.

B. Programming Specifications

(1) The programming specifications are contained in the "Maryland State Profiling Requirements Document" (PRD), which is attached to this paper as Appendix A. One of the most important challenges facing States in the implementation of the WP/RS system is developing an overall blueprint for system implementation that encompasses the wide range of processes involved, provides for successful, timely implementation, yet is not unduly complex. The PRD served such a purpose in the Maryland Test State project. The PRD describes all of the steps needed to successfully carry out the operational phase of Worker Profiling in Maryland; system programming, input, and output are described in detail. For the purposes of this paper, the entire PRD need not be paraphrased. It is critical, however, to underscore the close connections between the developmental and operational phases of Worker Profiling. These connections are essential in order to ensure that once a profiling approach is developed, it is correctly implemented. The PRD provides a clear illustration of how these connections were established in Maryland.

(2) The first connection involves the initial screens that are used to narrow the model's focus to claimants who are permanently separated and are UI eligible. Because of these screens, not all UI claimants will receive a probability score from the model. As suggested in FM 35-94, the Maryland Test provided for the exclusion of claimants who:

(a) had not received an initial UI payment;
(b) had specific recall dates;
(c) had union hiring hall agreements; or
(d) filed interstate claims;
and also for claimants who:

(e) were part of the UIS-sponsored Work Search Demonstration project in which Maryland is involved.

These screens were necessarily consistent between the developmental and operational phases of Worker Profiling, meaning that claimants fitting these criteria were screened out of all historic data sets used to develop the Maryland model. This provides consistency between the two phases of Worker Profiling. Pages 4 and 5 of the PRD describe how the initial screens were executed in the context of Maryland's data.

(3) Although consistency between the developmental and operational phases of Worker Profiling was judged to be important, there was one area in which such consistency could not be completely achieved—missing data. The claimant data used for the developmental and operational phases of profiling came from both UI and Employment Service (ES) files. ES collects data on registrants' education and occupation. Examination of the UI data revealed that, for most of the data elements, a small portion of the observations either lacked a value for that element or contained an invalid value (i.e., tenure of less than zero years). More importantly, a sizeable portion of the UI claimants had not registered with the ES, meaning they had missing values for occupation and education. For purposes of developing the model, all observations containing missing or invalid values were excluded from the sample. While this may introduce some bias to the model, it was judged to be the best short-term solution to the problem. This issue is further addressed in Section III, Part B, "Treatment of Missing Data".

(4) This solution could not be used in the operational phase, however; this would amount to screening out permanently separated, UI-eligible claimants on the basis of missing data. Thus, the concept of "default values" was conceived. When a profiled claimant has a missing or invalid value for a data element used to calculate the model's probability, a default value is used to fill in the field(s), making all claimant observations complete. The default values were assigned with the intent of neutralizing the effects of the element(s) in question. For example, if a claimant were missing the value for tenure, the default tenure value should neither appreciably raise nor appreciably lower that claimant's probability in relation to all other claimants. The default values are shown below:

(a) **Education:**
High school diploma (this was the "base group" in the series of categorical variables used to model education).
(b) **Tenure:**
2 years (this was the median observation).

(c) **SDA Industry employment change(*):**
- 0% (neither increasing nor decreasing) if SIC code was invalid or missing.
- State average for each Industry Division if SIC code was valid but SDA code was invalid or missing.

(d) **Occupation(*):**
Structural Work (this was the "base group" in the series of categorical variables used to model occupation).

(e) **SDA TUR(*):**
State average TUR if SDA code was invalid or missing.

(*)- These three data elements are labor market information (LMI) indicators that are paired with codes from the UI/ES extract file. More detail on the sources and use of LMI data, including the assignment of default values, is provided in Section II, Part C, "Labor Market Information".

Again, the above approach was judged to be the best short-term solution to the problem of missing data. Maryland is instituting policies that will require all field offices, except for two offices with particularly high claim loads in proportion to ES staff, to register all UI claimants with the ES. UI and ES are colocated in the Maryland field offices. This will greatly reduce the instances of missing data in the future. In addition, management reports developed for monitoring of the WP/RS system (see pages 13-15 of the PRD) will include the frequencies of missing or invalid data among the new claims from each field office. These reports will give program directors a good idea of where data collection needs to be improved, further reducing the instances of missing data.

(5) Another connection between the developmental and operational phases of Worker Profiling involves the conversion of the data elements as they appear on the UI/ES extract file into actual variables to be used in both developing and implementing the statistical model. An example of such a conversion would be using the data element "years of education" to form the series of categorical variables representing "high school diploma", "some college", etc. Discerning how the data elements are best incorporated into a statistical model typically involves a degree of trial-and-error experimentation involving similar conversions. In Maryland, this experimentation was done using a 20% sample of the historic data set and produced the variable definitions used in the current version of the model. (See UIS Information

212.
Bulletin 11-94 for more detail on this subject). The program depicted on pages 6-8 of the PRD shows how the data elements on the UI/ES extract file were converted to match these definitions in both the developmental and operational phases of the Maryland project.

(6) The final connection between the developmental and operational phases involves the actual calculation of the probability values predicted by the statistical model. Successful calculations required a common understanding of the step-by-step mechanics and operations underlying the logistic regression equation. Such an understanding was reached through communication between statistical and programming personnel and through the development of "pseudo-code", a line-by-line description of the logic used to derive the model's probability value. This pseudo-code, found on pages 9-11 of the PRD, was readily translated into actual code.

(7) As items 1-6 above illustrate, an appreciable amount of research and planning went into the development and operation of the Maryland profiling model. As part of the PRD (see pages 1-2), the procedures and deadlines to be observed were agreed upon by all personnel involved with the Maryland Test State project; all of these deadlines were subsequently met. At this point, system programming could begin and the current version of the model could be estimated.

Values of some fields used in the operational phase were not available at the outset of system programming. For example, coefficients were not available because the current version of the model had not yet been estimated. Provisions for such fields, shown below, were made in the PRD. None of these values were necessary for the early stages of system programming. Actual values were provided at a later date (see PRD, pages 21-22):

(a) Table of final values for all coefficients used in the model. Section V, "Current Version of the Maryland Model" describes the estimation process.

(b) Table of industry percent employment changes by SDA reflecting most current information available.

(c) Table of total unemployment rates by SDA reflecting most current information available.

(d) Table of final default values.

Although the model structure was agreed upon and recorded in the PRD, it was still necessary to go through all of the steps involved in developing a statistical model. Beginning with Section III "Historic Data", this paper traces these steps.
C. Labor Market Information

First, however, it is important to describe the key role that labor market information (LMI) plays in the WP/RS system. Both the national analysis (UIS Information Bulletin 4-94) and the initial Maryland analysis (UIS Information Bulletin 11-94) included three pieces of labor market information (LMI) that proved to be useful in identifying UI claimants likely to exhaust basic benefits: industry employment change, occupation employment change, and local unemployment rate. These LMI indicators are all used in some capacity in the current version of the Maryland model. Before final estimation of the model, and as part of the PRD requirements, it was necessary to decide on the source and the specific formats (e.g., time period, level of aggregation) for each of these data elements in both the developmental and operational phases. This section describes potential sources of labor market information and how these sources were used in Maryland.

1. Sources of Labor Market Information

State LMI Units: States have as potential data sources the LMI units that provide labor market information to the Bureau of Labor Statistics (BLS), to the SESA, and to the general public. These units publish reports on employment trends within industries, occupations, and sub-state areas on a periodic basis and may possess some of the data elements needed to establish an initial WP/RS system. In addition, State LMI units may possess a range of data elements beyond those used in the national or Maryland analyses and may also have personnel who would be well-suited to assist in developing a statistical model. SESA program units are encouraged to use LMI units as sources of knowledge and, perhaps, of data in the development of their WP/RS systems.

Bureau of Labor Statistics: Beginning in September, 1994, SESAs also will have the option of using labor market information provided by BLS, in conjunction with UIS, in support of the WP/RS initiative. These data will be readily available to States in a fixed format and will support State models derived from the DOL model. This arrangement will offer States the additional advantage of using data that have undergone BLS quality control procedures. The BLS/UIS arrangement will provide for distribution of the following data elements:

(1) Quarterly employment changes within industries, aggregated at sub-state levels.

(2) Annual employment changes within occupations, aggregated at the State level.
(3) Four-quarter moving average unemployment rates, aggregated at sub-state levels.

These data will be taken from the ES-202 data, from the source data for BLS’ forthcoming LASER system, and from BLS’ Local Area Unemployment Statistics (LAUS) data. The data are initially provided to BLS by State LMI units and undergo additional quality control procedures. The data will be available in fixed formats on an annual basis so that State models can be updated to reflect current employment trends. In addition, the common distribution of these data will facilitate the transfer of methods and ideas between States working to develop and improve their WP/RS systems. Thus, for many SESAs, the BLS data may assist expeditious development and implementation of a WP/RS system. The following sections summarize how labor market information was incorporated into the Maryland Test State project.

2. Industry Employment Change

(a) In Maryland, the BLS ES-202 data were used to derive sub-state indicators of industry employment change. The levels of aggregation used were (SIC) Industry Divisions and Service Delivery Areas (SDAs). Thus, for each of Maryland’s 12 SDAs, a local measure of the recent employment change for each Industry Division was derived. The specifics of how these data were incorporated into development of the model can be found in Section IV.

(b) It was felt that, in Maryland, the BLS data represented the best option because of time constraints that were involved. With such an aggressive schedule to meet (two weeks were allotted for model development), it was most convenient for the UIS technical assistance staff to receive the data from BLS in an agreed-upon format. Once a nationwide delivery system for the BLS data is in place in September, all States will have the option of receiving these data from UIS on a computer disk.

3. Occupation Employment Change

(a) In Maryland, Dictionary of Occupational Titles (DOT) codes are used by the ES to classify registrants’ former occupations. Since BLS primarily uses the Occupational Employment Statistics (OES) coding scheme, occupational employment data were not as readily available as industry data. In the nationwide delivery system, BLS will utilize a "crosswalk" between the OES and DOT coding schemes to provide States that collect DOT codes with the appropriate data on State-level occupational employment changes.

(b) Current data on occupational employment changes were not available from the Maryland LMI office either. It is anticipated that many States will initially be in a similar situation; occupational data are difficult to collect and maintain with a reasonable degree of accuracy. As a temporary measure, UIS staff
elected to use 1-digit DOT codes to create a set of nine categorical variables in the Maryland model. These enter the model in the same way as the education variables.

However, defining occupation categorically does not have the same logical value as defining education categorically. One reason is that statistical methods require that, for each set of categorical variables, one group be left out of the equation. This "base group" should be the average or typical group to which all other groups can be most meaningfully compared. For education, the rather obvious choice is the "high school diploma" group. However, for occupation there is no obvious choice among the 1-digit DOT groupings. Structural Work (construction) was selected because it was well-represented (15% of the overall population) and had a benefit exhaustion rate (51%) very close to that of the overall population (52%). Maryland DEED staff plan to test occupational employment data for inclusion in subsequent updates of the model as such data become available.

4. Unemployment Rate

(a) The Maryland model used unemployment rate data supplied by the Maryland Office of Labor Market Analysis and Information. These data measured total unemployment rate (TUR) and were initially aggregated at the county level. The specifics of how these data were incorporated into development of the model can be found in Section IV.

(b) These data were used because they were immediately available on disk in the Maryland DEED office. Although the BLS LAUS data could have been provided in a similar format, it was most convenient for UIS staff to use the in-house data for development of the Maryland model.

5. Default Values

(a) As mentioned in Section II, Part B, "Programming Specifications", each data element used in the model was assigned a default value for use in the operational phase when missing data were encountered. Thus, default values had to be assigned for the three IMI data elements.

(b) This proved to be one of the more problematic areas of the Test State initiative. The default values for the IMI elements are as follows:

(1) SDA Industry employment change was assigned a value of 0% if the SIC code was either invalid or missing. Without any information concerning a claimant's industry, this was judged to be the most neutral value. However, if a valid SIC code was given, but a missing or invalid FIPS code prevented identification of a
claimant's area of residence, the employment change variable was set equal to the State average for the claimant's Industry Division.

(2) Occupation was assigned the value of the base group, Structural Work. This is probably the weakest point of the initial Maryland model and is attributable to the categorical specification of occupation. Using "high school diploma" as the default value for education has a degree of intuitive value in terms of neutrality; using Structural Work as the default value for occupation has no such value. However, since the exhaustion rate for Structural Work was close to that of the overall population, this was as close to a neutral value as could be achieved.

(3) SDA TUR was assigned the State average TUR if the SDA code was invalid or missing.

III. Historic data

A. Description of Sample

(1) An entire year of historic claims data was used to develop the current version of the Maryland model. In Maryland, the historic records were stored in the Maryland Automated Benefits System (MABS) database. MABS contains records of all initial claims that were filed during the period used for the analysis (July 1, 1992 - June 30, 1993). However, MABS does not contain all the data elements used for the analysis. Occupation and education data for individuals are collected by ES and stored in the Job Service Applicant File database. In order to include occupation and education in the analysis, the individual MABS records had to be matched by Social Security Number with records from the Job Service applicant file. Records of claimants who had not registered with ES contained blank fields for occupation and education.

(2) Using SAS, a statistical software package available on the Maryland mainframe, the historic records were extracted from MABS and the Job Service database and combined into a single extract file. Excluding interstate claims, there were approximately 193,000 initial claims filed during the historic time period. Short programs were written in SAS to execute the remaining initial screens as specified in the PRD, and to include in the UI/ES extract file only the data elements that would be needed to develop the statistical model.

(3) The sample of 193,000 observations was reduced to approximately 90,000 through the execution of the remaining initial screens (first payment, recall, union hall, Work Search Demo participation). These 90,000 observations represent the
universe of claimants from the historic period who WOULD BE profiled by the statistical model IF they were current claimants. The data elements included for each observation in the extract file were as follows:

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Field Position</th>
<th>Field Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSN</td>
<td>01-09</td>
<td>9</td>
</tr>
<tr>
<td>Local Office Code</td>
<td>10-11</td>
<td>2</td>
</tr>
<tr>
<td>FIPS Code</td>
<td>12-16</td>
<td>5</td>
</tr>
<tr>
<td>Weekly Benefit Amount</td>
<td>17-22</td>
<td>6.2</td>
</tr>
<tr>
<td>Actual Benefit Amount</td>
<td>23-30</td>
<td>8.2</td>
</tr>
<tr>
<td>SIC Code of most recent base-period employer</td>
<td>31-36</td>
<td>6</td>
</tr>
<tr>
<td>Highest Grade Completed</td>
<td>37-38</td>
<td>2</td>
</tr>
<tr>
<td>DOT Code(*)</td>
<td>39-47</td>
<td>9</td>
</tr>
<tr>
<td>Months of Tenure with most recent base-period employer</td>
<td>48-50</td>
<td>3</td>
</tr>
</tbody>
</table>

(*)- when the data were later read into SPSS, only the first three positions of this code were used.

B. Treatment of Missing Data

(1) As mentioned, records of claimants who had not registered with ES were missing data for occupation and education. In addition, most of the data elements were missing or invalid for at least some portion of the observations. In order to estimate a statistical model, full data is needed for all observations. Thus, it was decided that the best short-term solution was to exclude all records containing missing data. Such exclusions have the potential to introduce bias to the model.

(2) If the excluded observations are selected randomly, no bias should result. However, for occupation and education, the two elements most frequently missing from the observations, this is not the case. Exclusions based on missing values for these two elements are not random; all claimants who did NOT register with ES are excluded. Thus, the factor(s) that determine ES registration in Maryland represent the area(s) of the model’s bias. In Maryland, the proportion of UI claimants who register with ES is chiefly a function of resource levels, staffing, and administrative procedures within field offices; individual
claimant characteristics are NOT the basis for ES registration. Thus, the model's bias is primarily geographic, meaning that field offices with extremely low ES registration rates are underrepresented in the sample, and vice-versa. Beginning in July, 1994, Maryland will institute policies requiring a 100% ES registration rate in all but two field offices. This should eventually eliminate this bias in the model and will be reflected in subsequent updates of the model.

(3) Still using SAS on the mainframe, the sample of 90,000 "eligible" records was reduced to approximately 48,000 by excluding records of claimants who had not registered with ES or had missing values for tenure. The large majority of these exclusions were of non-ES registrants. Analysis of the means (averages) and frequencies of variables in the two samples showed that the main differences between the two samples were field office-based: SDAs containing field offices with extremely low ES registration rates were underrepresented, and vice-versa.

At this point, the 48,000-record extract file was downloaded from the mainframe onto two 3.5" disks and loaded onto a PC containing SPSS, another statistical software package which Maryland had. This was done because this particular version of SPSS was supplemented by an advanced statistics module that could execute the "logistic regression" procedure. Other statistical packages such as SAS, LIMDEP and NCSS are also capable of supporting this procedure. After downloading, more analyses of means and frequencies were conducted, resulting in additional exclusions based on missing values for all other data elements. Also, in keeping with the PRD, observations with certain invalid codes or with tenure values in excess of 60 years were excluded as well. This reduced the sample to a final total of 43,197 observations containing valid values for all data elements.

IV. Data Transformations

The data elements as they appeared on the UI/ES extract file could not immediately be used to conduct the estimation of the statistical model. Most of the elements needed to be converted in order to fit the specifications of the PRD. Further, two were used as "keys" for attaching LMI indicators, which were contained in separate files, to the proper records in the extract file. These procedures are described below.

A. Conversions

(1) Since the variable formats had already been determined and were incorporated into the PRD, no additional experimentation was necessary. The exact specifications used to convert the data elements on the extract file into the formats needed for the model are shown on pages 6-8 of the PRD. The conversion process involved:
(a) Grouping the values from the "Highest Grade Completed" field into the five education categories.

(b) Dividing "Tenure in Months" by 12, then truncating (rounding downward) to the last full year completed to obtain "Tenure in Years".

(c) Grouping the values for 6-digit SIC codes into their proper Industry Division (1-digit) categories.

(d) Grouping the values for 3-digit DOT codes into their proper one-digit categories.

(e) Grouping the values for FIPS codes into their proper SDA categories.

(f) Using the "Weekly Benefit Amount" and "Actual Amount Paid" fields to discern whether or not each claimant exhausted basic benefits. If the calculation (ACTUAL AMOUNT)/(26 X WEEKLY AMOUNT) produced a value greater than or equal to 1, the claimant was deemed to have exhausted basic benefits.

(2) Once these conversions were completed, the data were in the formats needed to conduct the final estimation of the statistical model. However, the claimant records were not yet complete. Two pieces of labor market information—SDA industry employment change and SDA unemployment rate—are used in the Maryland model and needed to be attached to each claimant record. Section B below describes this procedure.

B. LMI: Industry Employment Change

(1) Information on the industry employment changes within each SDA was obtained from the Bureau of Labor Statistics' ES 202 data. Since the time period depicted by the historic file ranged from July 1, 1992 through June 30, 1993, the employment information for second quarter 1992 (92.2) and second quarter 1993 (93.2) was used in the developmental phase.

(2) A file containing this information was downloaded onto a 3.5" disk in ASCII text format. This text file was read into Lotus 1-2-3 as a spreadsheet and several transformations were done. The file contained monthly employment figures for the two quarters noted above for SIC Industry Divisions within each Maryland SDA. (These were the levels of SIC and sub-state aggregation selected for initial implementation. Future research and experience may suggest different levels of aggregation). The monthly employment figures were used to calculate quarterly average employment figures for each SDA (all Industry Divisions) and for each Industry Division within the SDA.
(3) The percent employment change between second quarter 1992 and second quarter 1993 was then calculated for each Industry Division. This percent change is the actual variable used by the model to incorporate the impact of claimants' former industry on benefit exhaustion. However, preliminary testing (prior to development of the PRD) had revealed some problems with this approach. Employment in certain Industry Divisions, primarily agriculture, mining, and miscellaneous, could be very low in any given SDA. As a result, the percent employment change was exaggerated with respect to the other Industry Divisions. For example, if average mining employment declined from 20 to 10 in a given SDA, then the variable used in estimating the model would be -50%. An examination of the data showed such observations to be extreme outliers, observations that can severely damage the accuracy of a statistical model. It was decided that for such extreme cases, the percent employment change should be weighted by the ratio of employment in that Industry Division to employment in the SDA. Industry Divisions comprising less than 3 percent of SDA employment were deemed "extreme" and the percent employment changes were weighted in this manner.

(4) The converted employment change data were written out from Lotus into another ASCII text file, which could then be read into SPSS. This layout of this file was as follows:

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Field Position</th>
<th>Field Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDA code</td>
<td>06-08</td>
<td>3</td>
</tr>
<tr>
<td>SIC Industry Division code</td>
<td>09-10</td>
<td>2</td>
</tr>
<tr>
<td>Total employment (92.2)</td>
<td>11-16</td>
<td>6</td>
</tr>
<tr>
<td>Total employment (93.2)</td>
<td>18-23</td>
<td>6</td>
</tr>
<tr>
<td>Percent employment change (92.2 - 93.2)</td>
<td>25-30</td>
<td>6</td>
</tr>
<tr>
<td>Ratio of Industry Division employment to SDA employment</td>
<td>33-38</td>
<td>6</td>
</tr>
<tr>
<td>Weighted percent employment change</td>
<td>41-46</td>
<td>6</td>
</tr>
</tbody>
</table>

This file was read into SPSS and was then "matched" with the converted UI/ES file. The SIC Industry Division codes and SDA codes in the claimant file were used as the keys for this match. For each claimant observation in the UI/ES file, this added all of the information from the above LMI file to the claimant record.

221.
C. LMI: SDA Unemployment Rate

(1) The information on unemployment rates within each SDA was obtained from the Maryland Office of Labor Market Analysis. This information was obtained for second quarter 1992 through second quarter 1993 in order to match the historic time period.

(2) A file containing the unemployment rates was available in a Lotus spreadsheet on a 3.5" disk. This file was loaded in and several transformations were done. The file contained monthly labor force, employment, and unemployment figures for the entire historic time period for each of Maryland’s 23 counties. The counties were grouped into Maryland’s 12 SDAs, and total unemployment rates corresponding to the historic time period were calculated for each SDA and for the State as a whole. Future research and experience may suggest different measures of local unemployment (e.g., insured unemployment rate, moving averages, etc.)

(3) The converted unemployment rate data were written out from Lotus into an ASCII text file, which could then be read into SPSS. This layout of this file was as follows:

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Field Position</th>
<th>Field Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDA code</td>
<td>05-06</td>
<td>2</td>
</tr>
<tr>
<td>SDA Unemployment Rate</td>
<td>08-11</td>
<td>4.1</td>
</tr>
</tbody>
</table>

This file was read into SPSS and was then "matched" with the converted UI/ES file. The SDA codes in the claimant file were used as the keys for this match. For each claimant observation in the UI/ES file, this added all of the information from the above LMI file to the claimant record.

At this point, all necessary data had been added to the UI/ES file within SPSS and were in the formats needed to conduct the final estimation of the statistical model. Section V below briefly describes the procedure used to conduct this estimation and how the output was integrated into the operational phase of the Maryland project.

V. Current Version of the Maryland Model

A. Estimating the Coefficients

(1) Once the transformations described in Section IV were done, the claimant file contained complete records of 43,197 permanently separated, UI-eligible claimants. The coefficients of the model were estimated using this entire sample. The statistical procedure used to conduct this estimation is known as "logistic regression" or "logit". This procedure has been used
by UIS staff in developing both the national model and the Maryland model. Logistic regression has certain statistical properties that make it particularly useful in predicting the probability of UI benefit exhaustion and has proven effective in making such predictions. Other statistical methods may also be useful in identifying claimants likely to exhaust basic benefits.

(2) Typically, when developing a statistical model, several versions are estimated and numerous tests are conducted in order to discern the optimal structure of the model. However, such experimentation was not necessary in this case. The Maryland model's structure had already been determined based on the analysis of a smaller sample of historic data (see UIS Information Bulletin 11-94). All that was necessary in this case was to write SPSS code that would execute the logistic regression procedure using the entire data set. This code, along with all SPSS code used in developing the current version of the Maryland model, is shown in Appendix B, "SPSS Code Used to Develop the Maryland Model".

B. Integrating the Coefficients into the Operational Phase

(1) The output of the estimation procedure is shown in Appendix C, "SPSS Output from Estimation of the Maryland Model". The estimated coefficients are shown in the first column of the table on page 3 of the appendix. These coefficients correspond (not in exact order) to the "coefficient card" fields specified in the pseudo-code on pages 9-11 of the PRD.

(2) One apparent inconsistency is that there are 18 coefficient card fields specified in the pseudo-code but only 16 estimated coefficients. This is because the values of coefficient cards 2 and 15 correspond to "high school diploma", and "Structural Work", respectively. As mentioned in Section II of this paper and in UIS Information Bulletin 11-94, these are the "base groups" for education and occupation. Statistical methods require that the coefficients of these variables be set to zero. SPSS accounts for this internally and therefore does not include these null coefficients in the output listing.

(3) The values of the 16 estimated coefficients and the 2 zero values were manually entered into the Profiling Program to be used in the operational phase. At this point, the model had been fully transferred from the developmental phase to the operational phase and system testing could begin. This testing included actual production runs and generation of all system outputs: the error report, the ranking report, and 3 management reports. Examples of these outputs are shown on pages 24-31 of the PRD.
ATTACHMENTS:

- LIST OF REFERENCES

- APPENDIX A: "MARYLAND STATE PROFILING REQUIREMENTS DOCUMENT" (PRD)

- APPENDIX B: "SPSS CODE USED TO DEVELOP THE MARYLAND MODEL"

- APPENDIX C: "SPSS OUTPUT FROM ESTIMATION OF THE MARYLAND MODEL"
REFERENCES

Profiling Legislation

A) Public Law 103 - 6, Section 4, Profiling of New Claimants
B) Public Law 103-152, Section 4, Worker Profiling

Legislative Interpretation


Implementation of a Worker Profiling and Reemployment Service System

A) Profiling of Unemployment Insurance (UI) Claimants, Unemployment Insurance Program Letter 45-93, ...


Profiling Mechanisms


Research on Profiling and Reemployment Services


225.
APPENDIX A: MARYLAND STATE PROFILING REQUIREMENTS DOCUMENT (PRD)
MARYLAND PROFILING EFFORT

Table of Contents

Purpose................................................................. 229
Approach (Delivery Dates)........................................ 229
Flow Chart............................................................. 231
Extract Program...................................................... 232
Conversion Program ................................................ 234
Profiling Program.................................................... 237
Ranking Report....................................................... 240
Management Report 1............................................... 241
Management Report 2............................................... 242
Management Report 3............................................... 243
Cumulative Process................................................ 244

Attachment A: Unemployment Insurance Data File Layout.... 245
Attachment B: Job Service Date File Layout.................... 246
Attachment C: Profiling Extract Data File Layout.............. 247
Attachment D: Control Card/Sequential File Layouts......... 249
Attachment E: Report Forms...................................... 251
Attachment F: Questions/Answers............................... 261

228.
MARYLAND PROFILING EFFORT

PURPOSE. The purpose of this project is to implement a profiling system which ranks unemployment insurance claimants, by each individual’s probability of exhausting benefits, in order to target reemployment services to those most in need. This effort includes only those items related to the on-going profiling process and does not include the efforts associated with the historical analysis to define the coefficients.

APPROACH. To accomplish this effort, there will be five basic steps: definition of requirements, development of programs and processes, testing of programs and processes, preparation of programs and documentation for production, and definition of post implementation requirements.

Requirements. Define the specifications for the creation of the profiling process.
- Initial Draft 04/29/94
- Revised Draft 05/02/94
- Final 05/04/94

Develop Programs. Programmatically create the profiling process programs needed.
- Receive Draft Coeff/Rates/Defaults 05/03/94
- Create Control Cards 05/04/94
- Create JCL stream 05/09/94
- Extract Program 05/09/94
- Conversion Program 05/11/94
- Profiling Program 05/13/94
- Ranking Report 05/16/94
- Mgt Rpt - Number of Profiled Claimants Report 05/17/94
- Mgt Rpt - Invalid Claimant Data Trends Report 05/18/94
- Mgt Rpt - Benchmark Probability Report 05/19/94

Test. Validate that the programs meet the functional requirements through testing. Testing will be performed on two types of data: full UI and JS test files, and a created set of test files. The created files will test all data possibilities and force all functions of the program to be performed.
- Develop Test Job Streams (JCL) 05/12/94
- Develop Test Directives and Cases 05/13/94
- Develop Test Data 05/18/94
- Receive/Load Actual Coeff/Rates/Defaults 05/19/94
- Exercise Tests Against UI and JS Test Data 05/20/94
- Exercise Tests Against Created Data 05/25/94

Prepare/Install. Before implementation of the profiling process in a Maryland production environment, documentation must be prepared and production approval must be obtained.
- Request Production File Names from Annapolis Data Center (ADC) 05/06/94
- Request Cylinder Space for Files From ADC 05/13/94
- Create Production Job Streams (JCL) 05/20/94
- Create Production Data Sets 05/20/94
- Create Control Procedures for ADC and Users 05/25/94
- Request Production Approval for JCL from ADC 05/26/94

May 25, 1994

229.
MARYLAND PROFILING EFFORT

Post Implementation - Once the profiling process has been installed in production, additional processes must be reviewed for development and implementation. This section highlights the processes identified during the profiling analysis and defines due dates for the initial identification and preliminary development of requirements to support these processes.

- Define requirements for the automated update of the profiling date control card (PROFDATE). 05/05/94
- Define requirements for a downloadable file from the Profile Extract file for each Local Office. 05/05/94
- Define requirements for address labels to support the associated Ranking Report. 05/05/94
- Define requirements for the automation of the service delivery area (SDA) sequential file LMIDATA which houses unemployment rate and the SDA sequential file which house the Industry percent of change. This data will be derived from the National Office or Maryland State Office labor market information and loaded into the appropriate files. 05/06/94
- Define requirements to enhance the identification of the Service Delivery Area (SDA) code from the county (FIPS) code. The current translation converts in-state counties to SDA codes. This enhancement would provide a further translation from the local office number for the out-of-state claimants. 05/06/94
- Define requirements for the feedback process to track that the profiled claimants are reporting to job services and participating in required services. 05/10/94
- Define overall objective of the JTPA reporting process, and how that interfaces with and affects the profiling process. 05/10/94

May 25, 1994

230.
MARYLAND PROFILING EFFORT

PROFILING PROCESS FLOW CHART

Unemployment Insurance Data

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTRACT PROGRAM</td>
</tr>
<tr>
<td>CONVERSION PROGRAM</td>
</tr>
<tr>
<td>ERROR REPORT</td>
</tr>
<tr>
<td>PROFILING PROGRAM</td>
</tr>
<tr>
<td>RANKING RPT</td>
</tr>
<tr>
<td>MANAGEMENT REPORT 1</td>
</tr>
<tr>
<td>MANAGEMENT REPORT 2</td>
</tr>
<tr>
<td>MANAGEMENT REPORT 3</td>
</tr>
<tr>
<td>CUMULATIVE PROCESS</td>
</tr>
</tbody>
</table>

Job Service Data

May 25, 1994

231.
MARYLAND PROFILING EFFORT

EXTRACT PROGRAM: This process takes the data from the existing unemployment insurance data files and the job services data files and consolidates the data into one extract file in sequential file format.

Input File Desc: Unemployment Insurance data.
Input File 1: EUZD.TEST.BENFTMTR.EUZ60F1 (Primary) 000-217
EUZD.TEST.BENFTMTR.EUZ60F2 (Secondary)
EUZD.TEST.BENFTMTR.EUZ60F3 (Primary) 218-999
Input Format: VSAM file format
Sort Criteria: Already sorted by SSN

Input File Desc: Job Services data.
Input File 2: ENQV.ENDOR.APPDATA.CASAC-AR or
ENDQ.ENDOR.VSCLST.APP (test file)
Input Format: VSAM file format
Sort Criteria: Already sorted by SSN

Input File Desc: Date Range Control Card
Input File 3: EMNP.ENDOR.CTLCDS (PROFDTE)
Input Format: Partitioned Data Set file format
Sort Criteria: Not Applicable

Output File Desc: Profiling Extract File
Output File 1: EMNP.ENDOR.UIJS.DATA
Output Format: Sequential file format (permanent)
Sort Criteria: Sort by SSN

EXCLUSION CRITERIA: This section defines the input record fields selected, the validation criteria, and the status of the record for inclusion or exclusion based on that validation.

<table>
<thead>
<tr>
<th>Input Field</th>
<th>Value</th>
<th>Exclusion Criteria/Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPD-LOCAL-OFFICE</td>
<td>50-56,58,59</td>
<td>Exclude claimants with these values.</td>
</tr>
<tr>
<td>CPD-LOCAL-OFFICE</td>
<td>91,94,95,97</td>
<td>They do not represent local office values and records are not applicable to the profiling effort.</td>
</tr>
<tr>
<td>CPD-LOCAL-OFFICE</td>
<td></td>
<td>Office number 50 and 56 meet the interstate exclusion criteria.</td>
</tr>
<tr>
<td>CPD-EMPLOYER-JCR</td>
<td>&quot;7&quot;</td>
<td>If the claimant is attached to his/her previous employer or affiliated with a union with a hiring hall.</td>
</tr>
<tr>
<td>CPD-CLAIM-TYPE</td>
<td>&gt;15</td>
<td>This field is checked to determine if claimant has been selected to participate in the Work Search Demonstration.</td>
</tr>
<tr>
<td>CPD-CLAIM-TYPE</td>
<td></td>
<td>If the value of the field greater than 15 the claimant will be excluded.</td>
</tr>
<tr>
<td>CPD-CLAIM-TYPE</td>
<td></td>
<td>This field is checked to determine if claimant has been selected to participate in the Work Search Demonstration.</td>
</tr>
<tr>
<td>CPD-CLAIM-TYPE</td>
<td></td>
<td>If the value of the field greater than 15 the claimant will be excluded.</td>
</tr>
<tr>
<td>CPD-CLAIM-TYPE</td>
<td></td>
<td>Used to access the segment 7 record with the earliest ISSUE-CHK-DATE.</td>
</tr>
</tbody>
</table>

May 25, 1994
MARYLAND PROFILING EFFORT

**BPH-ISSUE-CHK-DATE**  Date Range: This date range is checked against the last segment seven record to extract one week of claimant first pay data. The date range is Sunday through Saturday and is stored in DATE-WEEK-START and DATE-WEEK-END.

**CPD-SG4-CTR**  N/A  Used to access the first segment 4 record for review.

**BPE-RTW-DT**  000000  or 111111  This field is checked to determine if the claimant is attached to his/her previous job. If the field is not 000000 and not set to 11/11/11, the claimant will be excluded.

**DATA FIELDS TO EXTRACT:** The following input fields will be loaded to the associated output fields. Any special selection criteria is listed.

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
<th>Special Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>UI:CPD-SSN</td>
<td>SSN</td>
<td>JS:ES1-SSN is used to link UI and JS files.</td>
</tr>
<tr>
<td>UI:CPD-LAST</td>
<td>NAME-LAST</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-FIRST</td>
<td>NAME-FIRST</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-MIDDLE-INIT</td>
<td>NAME-MIDDLE-INIT</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-STREET</td>
<td>ADDR-STREET</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-STREET-EXT</td>
<td>ADDR-STREET-EXT</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-CITY</td>
<td>ADDR-CITY</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-STATE</td>
<td>ADDR-STATE</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-ZIP-CODE</td>
<td>ADDR-ZIP-CODE</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-STATE-COUNTY-FIPS</td>
<td>ORIG-SDA</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-TELEPHONE-NO-AC</td>
<td>TELEPHONE-NO-AC</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-TELEPHONE-NO</td>
<td>TELEPHONE-NO</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-BIRTH-DATE</td>
<td>BIRTH-DATE</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-SEX</td>
<td>SEX</td>
<td></td>
</tr>
<tr>
<td>UI:CPD-ETHNIC-GROUP</td>
<td>ETHNIC-GROUP</td>
<td>If JS:ES1-OVET empty Load from UI:CPD- VETERAN-DATA-IND. Loaded with value of &quot;Y&quot; or &quot;N&quot;. (Control Card - PROFDTE)</td>
</tr>
<tr>
<td>JS:ES1-OVET</td>
<td>VETERAN-DATA-IND</td>
<td></td>
</tr>
</tbody>
</table>

**Output file will serve as input file to the Conversion program.**

May 25, 1994
MARYLAND PROFILING EFFORT

CONVERSION PROGRAM: This process takes the consolidated data extracted from the JS and UI files and converts the elements to standard values before processing the data through the profiling program. This process also creates an error report that will list the invalid data encountered in the Education, Tenure, Occupation, and Industry data. Bad data will be classified into two categories; blank and invalid.

Input File Desc: Profiling Extract File
Input File 1: EMNP. ENDS.UIJS.DAT
Input Format: Sequential file format
Sort Criteria: SSN order

Input File Desc: Default Values Control Card
Input File 2: EMNP. ENDS. CTLCDS (PROFDEF)
Input Format: Partitioned Data Set file format.
Sort Criteria: Not Applicable

Input File Desc: Date Control Card
Input File 3: EMNP. ENDS. CTLCDS (PROFDTE)
Input Format: Partitioned Data Set file format.
Sort Criteria: Not Applicable

Output File Desc: Temporary Converted Extract File
Output File 1: &ETMPPRF
Output Format: Sequential file format (temporary)
Sort Criteria: SSN order

Output File Desc: Data Error Report
Output File 2: To Printer
Output Format: Report file format (See Attachment F)
Sort Criteria: SSN Order

CONVERSION CRITERIA: This section defines the input fields, the movement of input data to the output fields, and the requirements to convert the data to a new value. The section also provides validation information, the default value, and the flag settings based on the validation results.

<table>
<thead>
<tr>
<th>Input</th>
<th>Default</th>
<th>Output</th>
<th>Selection/Conversion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORIG-HIGR</td>
<td>DEF-HIGR</td>
<td>CONV-HIGR</td>
<td>FLG-HIGR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High Grade = Grade Code</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>00-11, GD = 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12 = 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13-19, C2-C5, AD = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C6-C7, BD = 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C8-C9, MD, PD = 4</td>
</tr>
</tbody>
</table>

May 25, 1994
<table>
<thead>
<tr>
<th>START-DATE</th>
<th>DEF-TENURE</th>
<th>CONV-TENURE</th>
<th>FLG-TENURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>END-DATE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tenure is calculated to the year. If less than one year set to zero. Truncate any partial year. End Date must be equal to or later than start date. Total years between two dates cannot be greater than 60. Dates that have a START-DATE or END-DATE equal to "00/00/00", "01/01/01", "11/11/11", or "12/12/12" are invalid. If blank set FLG-TENURE to B, if invalid to I. If blank or invalid load DEF-TENURE to CONV-TENURE.

<table>
<thead>
<tr>
<th>ORIG-IND</th>
<th>DEF-IND</th>
<th>CONV-IND</th>
<th>FLG-IND</th>
</tr>
</thead>
</table>

Translate the SIC (Industry) code (all 6 positions) to a 2 digit field. Use the following criteria for this translation. If blank set FLG-IND to B, if invalid to I. If blank or invalid load DEF-IND to CONV-IND.

<table>
<thead>
<tr>
<th>Industry Code = IND</th>
</tr>
</thead>
<tbody>
<tr>
<td>010000-099999 = 00</td>
</tr>
<tr>
<td>100000-149999 = 01</td>
</tr>
<tr>
<td>150000-179999 = 02</td>
</tr>
<tr>
<td>200000-399999 = 03</td>
</tr>
<tr>
<td>400000-499999 = 04</td>
</tr>
<tr>
<td>500000-519999 = 05</td>
</tr>
<tr>
<td>520000-599999 = 06</td>
</tr>
<tr>
<td>600000-699999 = 07</td>
</tr>
<tr>
<td>700000-899999 = 08</td>
</tr>
<tr>
<td>910000-979999 = 09</td>
</tr>
<tr>
<td>990000-999999 = 10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ORIG-OCC</th>
<th>DEF-OCC</th>
<th>CONV-OCC</th>
<th>FLG-OCC</th>
</tr>
</thead>
</table>

Translate the DOT (Occupation) code (first 3 positions) to a 1 digit field. Use the following criteria for this translation. If blank set FLG-OCC to B, if invalid to I. If blank or invalid load DEF-OCC to CONV-OCC.

<table>
<thead>
<tr>
<th>Occup.  = OCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>001-199 = 1</td>
</tr>
<tr>
<td>200-299 = 2</td>
</tr>
<tr>
<td>300-399 = 3</td>
</tr>
<tr>
<td>400-499 = 4</td>
</tr>
<tr>
<td>500-599 = 5</td>
</tr>
<tr>
<td>600-699 = 6</td>
</tr>
<tr>
<td>700-799 = 7</td>
</tr>
<tr>
<td>800-899 = 8</td>
</tr>
<tr>
<td>900-999 = 9</td>
</tr>
</tbody>
</table>

May 25, 1994
<table>
<thead>
<tr>
<th>ORIG-SDA</th>
<th>DEF-SDA</th>
<th>CONV-SDA</th>
<th>FLG-SDA</th>
<th>Validate that the state code, first two positions, is &quot;24&quot; (Maryland), then translate the county code last three positions into SDA as follows. State codes other than &quot;24&quot; are invalid. If blank set FLG-SDA to B, if invalid to I. If invalid or blank load DEF-SDA to CONV-SDA.</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Code</td>
<td>SDA Code</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>001</td>
<td>= 007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>003</td>
<td>= 011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>005</td>
<td>= 001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>009</td>
<td>= 006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>011</td>
<td>= 009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>013</td>
<td>= 012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>015</td>
<td>= 008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>017</td>
<td>= 006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>019</td>
<td>= 009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>021</td>
<td>= 005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>023</td>
<td>= 007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>025</td>
<td>= 008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>027</td>
<td>= 012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>029</td>
<td>= 009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>031</td>
<td>= 004</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>032</td>
<td>= 004</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>033</td>
<td>= 003</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>035</td>
<td>= 009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>037</td>
<td>= 006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>039</td>
<td>= 010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>041</td>
<td>= 009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>043</td>
<td>= 007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>045</td>
<td>= 010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>047</td>
<td>= 010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>510</td>
<td>= 002</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>997</td>
<td>= 999   (Default)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>998</td>
<td>= 999   (Default)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Output file will serve as input file to the Profiling program.

May 25, 1994

236.
MARYLAND PROFILING EFFORT

PROFILING PROGRAM: This process takes the standardized data extracted from the JS and UI data files and ranks the individual claimants based on their probability of exhausting their benefits before reemployment.

Input File Desc: Temporary Converted Extract File
Input File 1: &TMPPRF
Input Format: Sequential file format (temporary)
Sort Criteria: SSN

Input File Desc: SDA/URATE/Industry Percent of Change File
Input File 2: EMNP.ENDS.PROFILE.LMIDATA
Input Format: Sequential Data Set
Sort Criteria: Service Delivery Area (SDA)

Input File Desc: Coefficients Control Card
Input File 3: EMNP.ENDS.CTLCOES(PROFCOEF)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Output File Desc: Final Profiled Claimant File
Output File 1: &TMPPR2
Output Format: Sequential file format (temporary)
Sort Criteria: SSN

FORMULA CRITERIA: The formula criteria defines the calculation used to rank individual claimants. There are three elements which must have values assigned:

- **Exp**
  - Is defined through statistical theory and is constant.

- **Bxi**
  - Is based on claimant specific values of: Unemployment Rate and Industry % of Change within a SDA, Occupation, Tenure, and Education, and the application of the coefficients in relation to these values.

- **Ranking Value**
  - Product of the equation.

**Exp is defined as:** 2.718281828

**Bxi is determined as follows:**

1. **Bxi = 0** (Set to 0)
2. **Add Value of Coefficient Card 1** (Add Baseline)
3. **If CONV-HIGR = 0**
   - Add Value of Coefficient Card 2
   - **If CONV-HIGR = 1**
     - Add Value of Coefficient Card 3
     - **If CONV-HIGR = 2**
       - Add Value of Coefficient Card 4
       - **If CONV-HIGR = 3**
         - Add Value of Coefficient Card 5
         - **If CONV-HIGR = 4**
           - Add Value of Coefficient Card 6

May 25, 1994

237.
4. Add Result of (CONV-TENURE multiplied by Value of Coefficient Card 7) (Add Tenure)

5. If CONV-OCC = 1
   Add Value of Coefficient Card 8
   If CONV-OCC = 2
   Add Value of Coefficient Card 9
   If CONV-OCC = 3
   Add Value of Coefficient Card 10
   If CONV-OCC = 4
   Add Value of Coefficient Card 11
   If CONV-OCC = 5
   Add Value of Coefficient Card 12
   If CONV-OCC = 6
   Add Value of Coefficient Card 13
   If CONV-OCC = 7
   Add Value of Coefficient Card 14
   If CONV-OCC = 8
   Add Value of Coefficient Card 15
   If CONV-OCC = 9
   Add Value of Coefficient Card 16

6. If CONV-SDA = SDA
   Add Result of (URATE multiplied by Value of Coefficient Card 17) (Add Unemployment Rate)
   Else next SDA parameter card and try again.

7. If CONV-SDA = SDA
   Then If CONV-IND = 00
   Add Result of (IND00 multiplied by Value of Coefficient Card 18) (Add Industry % of Change)
   If CONV-IND = 01
   Add Result of (IND01 multiplied by Value of Coefficient Card 18)
   If CONV-IND = 02
   Add Result of (IND02 multiplied by Value of Coefficient Card 18)
   If CONV-IND = 03
   Add Result of (IND03 multiplied by Value of Coefficient Card 18)
   If CONV-IND = 04
   Add Result of (IND04 multiplied by Value of Coefficient Card 18)
   If CONV-IND = 05
   Add Result of (IND05 multiplied by Value of Coefficient Card 18)
   If CONV-IND = 06
   Add Result of (IND06 multiplied by Value of Coefficient Card 18)
   If CONV-IND = 07
   Add Result of (IND07 multiplied by Value of Coefficient Card 18)
   If CONV-IND = 08
   Add Result of (IND08 multiplied by Value of Coefficient Card 18)
   If CONV-IND = 09
   Add Result of (IND09 multiplied by Value of Coefficient Card 18)

May 25, 1994

238.
MARYLAND PROFILING EFFORT

If CONV-IND = 10
Add Result of (IND10 multiplied by Value of Coefficient Card 18)
If CONV-IND = 99
Add Result of (IND99 multiplied by Value of Coefficient Card 18)
Else next SDA parameter card and try again.

The full Bxi equation then looks like:

\[ Bxi = 0 + \text{Base Coeff} + \text{Education Coeff} + (\text{Tenure Yrs} \times \text{Tenure Coeff}) + \text{Occupation Coeff} + (\text{Unemployment Rate} \times \text{Unemployment Coeff}) + (\text{Industry % of Change} \times \text{Industry Coeff}) \]

**Ranking Value is determined from the equation:** The ranking value is then determined by applying the Exp Value and the Bxi Value into the following equation:

\[
\frac{\text{Exp}^{Bxi}}{1 + \text{Exp}^{Bxi}}
\]

**OUTPUT CRITERIA:** This section defines where the results of the program will be stored. The profiling program creates one data elements RANKING and stores it in the RANKING field of the final profiling file (See output file defined above.

<table>
<thead>
<tr>
<th>Output Field</th>
<th>Obtained From</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANKING</td>
<td>Result of Formula Ranking Value</td>
</tr>
</tbody>
</table>

Output file will serve as input to the Ranking and Management Reports.

May 25, 1994

239.
MARYLAND PROFILING EFFORT

RANKING REPORT: This report program uses the data extracted and converted from the JS and UI data files and the output from the profiling program to produce a ranked listing of individual claimants based on their probability of exhausting their benefits before reemployment.

Input File Desc: Final Profiled Claimants File
Input File 1: &TMPPR2
Input Format: Sequential file format
Sort Criteria: SSN

Input File Desc: Date Range Control Card
Input File 2: EMNP.ENDS.CTLCDS(PROFDTE)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Input File Desc: Local Office Control Card
Input File 3: EMNP.ENDS.CTLCDS(PROFLOFF)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Output File Desc: Ranking Report
Output File 1: To Printer
Output Format: Report file format (See Attachment P)
Sort Criteria: Local Office, Ranking

OUTPUT CRITERIA: This defines the fields to be printed on the report.

<table>
<thead>
<tr>
<th>File</th>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>DATE-WEEK-BEGIN</td>
<td>Date for beginning of week. (Header Only)</td>
</tr>
<tr>
<td>2</td>
<td>DATE-WEEK-END</td>
<td>Date for end of week. (Header Only)</td>
</tr>
<tr>
<td>1</td>
<td>LOCAL-OFFICE</td>
<td>Local Office Number and Name (translated from Number)</td>
</tr>
<tr>
<td>1</td>
<td>RANKING</td>
<td>Ranking Value of Profiling Formula (used for storing results of calculation)</td>
</tr>
<tr>
<td>1</td>
<td>SSN</td>
<td>Social Security Number</td>
</tr>
<tr>
<td>1</td>
<td>NAME-LAST</td>
<td>Last Name (1st 15 only)</td>
</tr>
<tr>
<td>1</td>
<td>NAME-FIRST</td>
<td>First Name (1st 10 only)</td>
</tr>
<tr>
<td>1</td>
<td>NAME-MIDDLE-INT</td>
<td>Middle Initial of Name</td>
</tr>
<tr>
<td>1</td>
<td>TELEPHONE-NO-AC</td>
<td>Phone Number - Area Code</td>
</tr>
<tr>
<td>1</td>
<td>TELEPHONE-NO</td>
<td>Phone Number</td>
</tr>
<tr>
<td>1</td>
<td>ORIG-HIGR</td>
<td>Education</td>
</tr>
<tr>
<td>1</td>
<td>CONV-TENURE</td>
<td>Tenure</td>
</tr>
<tr>
<td>1</td>
<td>ORIG-IND</td>
<td>Industry (1st four only)</td>
</tr>
<tr>
<td>1</td>
<td>CONV-SDA</td>
<td>Service Delivery Area</td>
</tr>
<tr>
<td>1</td>
<td>ORIG-SDA</td>
<td>County Code (last three only)</td>
</tr>
<tr>
<td>1</td>
<td>ORIG-OCC</td>
<td>Occupation</td>
</tr>
<tr>
<td>1</td>
<td>VETERAN-DATA-IND</td>
<td>Veteran Flag</td>
</tr>
</tbody>
</table>

SPECIAL REQUIREMENTS:
1. Produce a header which provides the local office number and name, beginning and ending dates selected, and the system processing date.
2. Report will produce a page break when the value of the CPD-LOCAL-OFFICE field changes.
3. Report will provide remote printing routing for each local office's report information.

May 25, 1994

240.
MARYLAND PROFILING EFFORT

MANAGEMENT REPORT 1: This report program takes the standardized data extracted from the JS and UI data files and creates a statistical report of the number of claimants profiled in the state and in each local office.

Input File Desc: Final Profiled Claimants File
Input File 1: 44TMPBR2
Input Format: Sequential file format
Sort Criteria: SSN

Input File Desc: Date Range Control Card
Input File 2: EMNP.ENDS.TCLCDS(PROFDTE)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Input File Desc: Default Values Control Card
Input File 3: EMNP.ENDS.TCLCDS(PROFDEF)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Input File Desc: Local Office Control Card
Input File 4: EMNP.ENDS.TCLCDS(PROFLOFF)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Output File Desc: Number of Profiled Claimants Report
Output File 1: To Printer
Output Format: Report file format (See Attachment F)
Sort Criteria: Local Office

OUTPUT CRITERIA: This defines the fields printed on the report.

<table>
<thead>
<tr>
<th>File</th>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>DATE-WEEK-BEGIN</td>
<td>Date for beginning of week. (Header Only)</td>
</tr>
<tr>
<td>2</td>
<td>DATE-WEEK-END</td>
<td>Date for end of week. (Header Only)</td>
</tr>
<tr>
<td>1</td>
<td>LOCAL-OFFICE</td>
<td>Local Office Name, as translated from the numerical value.</td>
</tr>
<tr>
<td>1</td>
<td>RANKING</td>
<td>Ranking Value from Profiling Formula (used for calculation)</td>
</tr>
<tr>
<td>3</td>
<td>DEF-BENCHMARK</td>
<td>Default for Reporting Benchmark (used for calculation)</td>
</tr>
</tbody>
</table>

SPECIAL REQUIREMENTS:
1. Tally the number of claimants, statewide and by local office.
2. Tally the number of claimants, statewide and by local office, whose ranking was equal to or higher than the benchmark.
3. Calculate the percentage of claimants, statewide and by local office, whose ranking was equal to or higher than the benchmark, as compared to the number of total claimants.

May 25, 1994

241.
MARYLAND PROFILING EFFORT

MANAGEMENT REPORT 2: This report program takes the standardized data extracted from the JS and UI data files and creates a statistical report of the number of claimants by variable which had invalid or missing data elements. This information will be reported on the state and local office levels.

Input File Desc: Final Profiled Claimants File
Input File 1: &TMPPR2
Input Format: Sequential file format
Sort Criteria: SSN

Input File Desc: Date Range Control Card
Input File 2: EMNP.ENDS.CTLCDS(PROFDTE)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Input File Desc: Local Office Control Card
Input File 3: EMNP.ENDS.CTLCDS(PROFLOFF)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Output File Desc: Invalid Claimant Data Trends Report
Output File 1: To Printer
Output Format: Report file format (See Attachment F)
Sort Criteria: Local Office

OUTPUT CRITERIA: This defines the fields printed on the report.

<table>
<thead>
<tr>
<th>File</th>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>DATE-WEEK-BEGIN</td>
<td>Date for beginning of week. (Header Only)</td>
</tr>
<tr>
<td>2</td>
<td>DATE-WEEK-END</td>
<td>Date for end of week. (Header Only)</td>
</tr>
<tr>
<td>1</td>
<td>LOCAL-OFFICE</td>
<td>Local Office (convert number to name for display)</td>
</tr>
<tr>
<td>1</td>
<td>FLG-HIGR</td>
<td>Education Flag - Blank or Invalid (used for tally)</td>
</tr>
<tr>
<td>1</td>
<td>FLG-TENURE</td>
<td>Tenure Flag - Blank or Invalid (used for tally)</td>
</tr>
<tr>
<td>1</td>
<td>FLG-OCC</td>
<td>Occupation Flag - Blank or Invalid (used for tally)</td>
</tr>
<tr>
<td>1</td>
<td>FLG-IND</td>
<td>Industry Flag - Blank or Invalid (used for tally)</td>
</tr>
</tbody>
</table>

SPECIAL REQUIREMENTS:
1. Tally the number of claimants statewide.
2. Tally the number of claimants by local office.
3. Tally the number of claimants, statewide and by local office with blank or invalid education data (FLG-HIGR)
4. Tally the number of claimants, statewide and by local office with blank or invalid tenure (FLG-TENURE)
5. Tally the number of claimants, statewide and by local office with blank or invalid occupation (FLG-OCC)
6. Tally the number of claimants, statewide and by local office with blank or invalid industry (FLG-IND)

May 25, 1994

242.
MARYLAND PROFILING EFFORT

MANAGEMENT REPORT 1: This report program takes the standardized data extracted from the JS and UI data files to create a statistical report for each variable value, which provides the number and percent of total claimants.

Input File Desc: Final Profiled Claimants File
Input File 1: &ETMPFR2
Input Format: Sequential file format
Sort Criteria: SSN

Input File Desc: Date Range Control Card
Input File 2: EMNP.ENDS.CTLDCS(PROFDTE)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Input File Desc: Default Values Control Card
Input File 3: EMNP.ENDS.CTLDCS(PROFDEP)
Input Format: Partitioned Data Set
Sort Criteria: Not Applicable

Output File Desc: Benchmark Probability Report
Output File 1: To Printer
Output Format: Report file format (See Attachment F)
Sort Criteria: Local Office

OUTPUT CRITERIA: This defines the fields printed on the report.

<table>
<thead>
<tr>
<th>File</th>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>DATE-WEEK-BEGIN</td>
<td>Date for beginning of week. (Header Only)</td>
</tr>
<tr>
<td>2</td>
<td>DATE-WEEK-END</td>
<td>Date for end of week. (Header Only)</td>
</tr>
<tr>
<td>1</td>
<td>CONV-HIGR</td>
<td>Education</td>
</tr>
<tr>
<td>1</td>
<td>CONV-TENURE</td>
<td>Tenure</td>
</tr>
<tr>
<td>1</td>
<td>CONV-OCC</td>
<td>Occupation</td>
</tr>
<tr>
<td>1</td>
<td>CONV-IND</td>
<td>Industry</td>
</tr>
<tr>
<td>1</td>
<td>RANKING</td>
<td>Ranking Value of Prof. Formula (used in calc.)</td>
</tr>
<tr>
<td>3</td>
<td>DEF-BENCHMARK</td>
<td>Default for Reporting Benchmark (used in calc.)</td>
</tr>
</tbody>
</table>

SPECIAL REQUIREMENTS:
1. Tally the number of statewide claimants.
2. Tally the number of statewide claimants whose ranking was equal to or higher than the benchmark.
3. Tally the number of statewide claimants based on specific values of the following variables: Education, Tenure, Occupation, Industry.
4. Tally the number of statewide claimants based on the values of the following variables, and whose ranking was equal to or higher than the benchmark: Education, Tenure, Occupation, Industry.
5. Calculate the percentage of statewide claimants based on values of the following variables, as compared to the number of statewide claimants: Education, Tenure, Occupation, Industry.
6. Calculate the percentage of statewide claimants based on values of the following variables, as compared to the number of statewide claimants whose ranking was equal to or higher than the benchmark: Education, Tenure, Occupation, Industry.

May 25, 1994
MARYLAND PROFILING EFFORT

**CUMULATIVE PROCESS**: This process creates a cumulative data file of all profiled claimants by appending each weeks worth of claimant data.

**Input File Desc:** Cumulative Profiling File
**Input File 1:** EMNP.ENDS.GDG.PROF94(0)
**Input Format:** Generation Data Group - Sequential file format
**Sort Criteria:** Date Week End, SSN

**Input File Desc:** Final Profiled Claimant File
**Input File 1:** &TMPPR2
**Input Format:** Sequential file format (temporary)
**Sort Criteria:** SSN

**Output File Desc:** Cumulative Profiling File
**Output File 1:** EMNP.ENDS.GDG.PROF94(+1)
**Output Format:** Generation Data Group - Sequential file format
**Sort Criteria:** Date Week End, SSN

**SPECIAL REQUIREMENTS**: This section defines any special requirements for the cumulative file creation.

- The cumulative file should house one year of claimant data. The file will be named to reflect the fiscal year which is represented, and a new file name will be created on the first processing run within the new fiscal year. Example file name: EMNP.ENDS.GDG.PROF94 - represents profiled claimants during fiscal year 1994.

- The cumulative file will be created as a generation data group, so that errors in processing can be recovered without re-creation of the entire file. The maximum number of generations retained will be set to 10, allowing ten weeks of processing to catch errors.

- When adding the new weeks worth of claimant data to the cumulative file, the data will be appended to the bottom of the file. No sorting will be required, since the weekly file is sorted by SSN and represents the new week which would be loaded at the bottom.

May 25, 1994

244.
MARYLAND PROFILING EFFORT

ATTACHMENT A

LAYOUT FOR THE UNEMPLOYMENT INSURANCE FILE: Only the fields relevant for the profiling process are defined. Three types, those used for exclusion (not saved), those used for ranking, and those used for reporting. (EUZD.TEST.BENFTMR.EUZ960F1, EUZ960F2, and EUZ960F3)

Segment 01:
CPD-KEY     PIC 0(10)    Record Key (KEY)
CPD-SSN     PIC 9(9) COMP Social Security Number (KEY)
CPD-SSN-SEQ PIC 9        Record Number Per SSN (KEY)
CPD-SG4-CTR PIC S9999 COMP Segment 4 Counter (Exclusion)
CPD-SG7-CTR PIC S9999 COMP Segment 7 Counter (Exclusion)
CPD-LAST    PIC X(20)     Last Name (Report)
CPD-FIRST   PIC X(14)     First Name (Report)
CPD-MIDDLE-INIT PIC X     Middle Initial (Report)
CPD-STREET  PIC X(35) Street Address 1 (Info Only)
CPD-STREET-EXT PIC X(35) Street Address 2 (Info Only)
CPD-CITY    PIC X(20) City (Info Only)
CPD-STATE   PIC XX       State Abbreviation (Info Only)
CPD-ZIP-CODE PIC X(10) Zip Code (Info Only)
CPD-STATE-COUNTY-FIPS PIC 9(5) COMP-3 SDA/Last 3 Positions (Conversion)
CPD-RESIDENCE-CODE PIC 9(4) COMP-3 Residence Code (Info Only)
CPD-TELEPHONE-NO-AC PIC 9(3) COMP-3 Phone - Area Code (Report)
CPD-TELEPHONE-NO PIC 9(7) COMP-3 Phone Number (Report)
CPD-BIRTH-DATE PIC 9(6) COMP-3 Birth Date (Info Only) YYMMD
CPD-SEX     PIC 9        Sex; Ina-0, Male-1, Female-2 (Info Only)
CPD-ETHNIC-GROUP PIC 9    Race; Ina-0, White-1, Black-2, Asian-Islander-3, Indian-Alaskan-4, Hispanic-5, NW-Other-6 (Info Only)
CPD-VETERAN-DATA-IND PIC 9 Claimant a Veteran? Ina-0, Yes-1, No-2 (Report)
CPD-EMPLOYER-JCR PIC 9    Attached/Union Affiliated (Exclusion)
CPD-DOT-ONE PIC X(10)    Occupation (Conversion, Profiling)
CPD-LOCAL-OFFICE PIC 99   Local office number: Valid numbers: 1-5, 7-15, 20-27, 33-34, 36, 40, 42-43, 45, 50-56, 58-59, 91, 93-95, 97. The LO name is defined as an 88 level. (Exclusion, Reporting) Claim Type (Exclusion)

Segment 4: (may be multiple segment 4s for this record)
BPE-EMPLOYER-SIC PIC 9(6) Industry Code (Profiling, Reporting)
BPE-START-DATE PIC 9(6) COMP-3 Tenure (Conversion, Profiling, Reporting) YYMMD
BPE-END-DATE  PIC 9(6) COMP-3 Tenure (Conversion, Profiling, Reporting) YYMMD
BPE-RTW-DT    PIC 9(6) COMP-3 Return to Work Date (Exclusion) YYMMD

Segment 7: (may be multiple segment 7s for this record)
BPH-ISSUE-CHK-DATE PIC 9(6) COMP-3 Check Issue Date (Excl) YYMMD

May 25, 1994

245.
MARYLAND PROFILING EFFORT

ATTACHMENT B

**LAYOUT FOR THE JOB SERVICES FILE:** Only the fields relevant for the profiling process are defined. Three types, those used for exclusion (not saved), those used for ranking, and those used for reporting. (EMNV.ENDS.APPDATA.CASAC-AR or EMND.ENDT.VSCLST.APP)

<table>
<thead>
<tr>
<th>Field</th>
<th>PIC</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES1-SSN</td>
<td>X(009)</td>
<td>Social Security Number (KEY)</td>
</tr>
<tr>
<td>ES1-HIGR</td>
<td>X(002)</td>
<td>Education (Conversion, Profiling, Reporting)</td>
</tr>
<tr>
<td>ES1-OCC</td>
<td>X(009)</td>
<td>Occupation (Conversion, Profiling, Reporting)</td>
</tr>
<tr>
<td>ES1-OVET</td>
<td>X(001)</td>
<td>Veteran Indicator (Reporting);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Review the values of this element to determine if veteran.</td>
</tr>
</tbody>
</table>

May 25, 1994

246.
MARYLAND PROFILING EFFORT

ATTACHMENT C

LAYOUT FOR THE PROFILING EXTRACT FILES: (EMNP.ENDS.UIJS.DATA, &MPFR, &MPFR2, and, EMNP.ENDS.GDG.PROF94)

SSN PIC 9(9) Social Security Number
(Loaded From UI:CPD-SSN)
NAME-LAST PIC X(20) Last Name
(Loaded From UI:CPD-LAST)
NAME-FIRST PIC X(14) First Name
(Loaded From UI:CPD-FIRST)
NAME-MIDDLE-INIT PIC X Middle Initial
(Loaded From UI:CPD-MIDDLE-INIT)
ADDR-STREET PIC X(35) Street Address 1
(Loaded From UI:CPD-STREET)
ADDR-STREET-EXT PIC X(35) Street Address 2
(Loaded From UI:CPD-STREET-EXT)
ADDR-CITY PIC X(20) Address City
(Loaded From UI:CPD-CITY)
ADDR-STATE PIC XX Address State Abbreviation
(Loaded From UI:CPD-STATE)
ADDR-ZIP-CODE PIC X(10) Address Zip Code
(Loaded From UI:CPD-ZIP-CODE)
TELEPHONE-NO-AC PIC 9(3) Telephone Number Area Code
(Loaded from UI:CPD-TELEPHONE-NO-AC)
TELEPHONE-NO PIC 9(7) Telephone Number
(Loaded from UI:CPD-TELEPHONE-NO)
BIRTH-DATE PIC 9(6) Birth Date YYMMDD
(Loaded from UI:CPD-BIRTH-DATE)
SEX PIC 9 Sex
(Loaded from UI:CPD-SEX) Values are:
0 - Information Not Available
1 - Male
2 - Female
ETHNIC-GROUP PIC 9 Race
(Loaded from UI:CPD-ETHNIC-GROUP) Values are:
0 - Information Not Available
1 - White
2 - Black
3 - Asian-Islander
4 - Indian-Alaskan
5 - Hispanic
6 - NW-Other
VETERAN-DATA-IND PIC X Veteran Indicator
(Loaded From JS:ES1-OVET or UI:CPD-VETERAN-DATA-IND) Load with Y or N value depending on values in JS and UI fields.
DATE-WEEK-END PIC 9(6) Date Week Ended. YYMMDD format.
(Loaded from PROFDE:DATE-WEEK-END)
LOCAL-OFFICE PIC 99 Local Office
ORIG-SDA PIC 9(5) Original SDA
(Load From UI:CPD-STATE-COUNTY-FIPS)

May 25, 1994

247.
MARYLAND PROFILING EFFORT

CONV-SDA    PIC 9(3)    Converted SDA
            (Created from last three field
positions of the ORIG-SDA field)

FLG-SDA     PIC X       Loaded in conversion program, based
                  on valid check of ORIG-SDA

START-DATE  PIC 9(6)   Employment Date YYMMDD (Tenure Eval)
                  (Loaded from UI:BPE-START-DATE)

END-DATE    PIC 9(6)   Employment Date YYMMDD (Tenure Eval)
                  (Loaded from UI:BPE-END-DATE)

CONV-TENURE PIC 99     Tenure, In Years
                  (Loaded from calculation on START-
                  DATE, END-DATE)

FLG-TENURE  PIC X      Loaded in conversion program, based
                  on valid check of ORIG-TENURE

ORIG-HIGR   PIC X(2)   Education (High Grade)
                  (Loaded from JS:ES1-HIGR)

CONV-HIGR   PIC X      Converted Education
                  (Loaded from conversion of ORIG-
                  HIGR)

FLG-HIGR    PIC X      Loaded in conversion program, based
                  on valid check of ORIG-HIGR

ORIG-OCC    PIC X(9)   Occupation Code (DOT)
                  (Loaded from JS:ES1-OCC. If JS:ES1-
                  OCC empty Load from UI:CPD-DOT-ONE)
                  CAUTION: UI:CPD-DOT-ONE IS PIC X(10)

CONV-OCC    PIC X      Occupation Code, Converted.
                  (Loaded from conversion of ORIG-OCC)

FLG-OCC     PIC X      Loaded in conversion program, based
                  on valid check of ORIG-OCC

ORIG-IND    PIC 9(6)   Industry
                  (Loaded from UI:BPE-EMPLOYER-SIC)

CONV-IND    PIC XX     Converted Industry. Once converted,
                  field represents Division.
                  (Loaded from conversion of ORIG-IND)

FLG-IND     PIC X      Loaded in conversion program, based
                  on valid check of ORIG-IND

RANKING     PIC S(9V99999) Ranking Value from Profiling Formula
                  (Loaded from the calculation
                  performed in the Profiling Program
                  formula)
## MARYLAND PROFILING EFFORT

### ATTACHMENT D

### LAYOUT FOR CONTROL CARDS/SEQUENTIAL FILES

**DATE RANGE CONTROL CARD:** (EMNP.ENDS.CTLCDS(PROFDE))

<table>
<thead>
<tr>
<th>FIELD NAME</th>
<th>FORMAT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE-WEEK-BEGIN</td>
<td>PIC 9(8)</td>
<td>CCYYMMDD - Date for beginning of week. Always set to a Sunday date.</td>
</tr>
<tr>
<td>DATE-WEEK-END</td>
<td>PIC 9(8)</td>
<td>CCYYMMDD - Date for end of week. Always set to the date of the first Saturday after the Sunday date set in DATE-WEEK-BEGIN.</td>
</tr>
</tbody>
</table>

Example Values: 1994042419940430

**DEFAULT VALUES CONTROL CARD:** (EMNP.ENDS.CTLCDS(PROFDEF))

<table>
<thead>
<tr>
<th>FIELD NAME</th>
<th>FORMAT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEF-TENURE</td>
<td>PIC X(2)</td>
<td>Default Tenure Code</td>
</tr>
<tr>
<td>DEF-HIGR</td>
<td>PIC X</td>
<td>Default Education Code</td>
</tr>
<tr>
<td>DEF-OCC</td>
<td>PIC X</td>
<td>Default Occupation Code</td>
</tr>
<tr>
<td>DEF-IND</td>
<td>PIC X(2)</td>
<td>Default Industry Code</td>
</tr>
<tr>
<td>DEF-SDA</td>
<td>PIC X(3)</td>
<td>Default Service Delivery Area</td>
</tr>
<tr>
<td>DEF-BENCHMARK</td>
<td>PIC 9</td>
<td>Default for Reporting Benchmark (ranking value)</td>
</tr>
</tbody>
</table>

Example Values: 0208999996

**COEFFICIENTS CONTROL CARD:** (EMNP.ENDS.CTLCDS(PROFCOEF))

<table>
<thead>
<tr>
<th>FIELD NAME</th>
<th>FORMAT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>COEF-NAME</td>
<td>X(4)</td>
<td>Coefficient Name</td>
</tr>
<tr>
<td>COEF-VALUE</td>
<td>S(9V9999)</td>
<td>Coefficient Value</td>
</tr>
</tbody>
</table>

There are 18 coefficient values defined in this control card, one coefficient per card. The coefficients values are defined as follows:

<table>
<thead>
<tr>
<th>CARD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Maryland Base Coefficient Name and Value</td>
</tr>
<tr>
<td>2</td>
<td>Coefficient Name and Value for Education Variable = 0</td>
</tr>
<tr>
<td>3</td>
<td>Coefficient Name and Value for Education Variable = 1</td>
</tr>
<tr>
<td>4</td>
<td>Coefficient Name and Value for Education Variable = 2</td>
</tr>
<tr>
<td>5</td>
<td>Coefficient Name and Value for Education Variable = 3</td>
</tr>
<tr>
<td>6</td>
<td>Coefficient Name and Value if Education Variable = 4</td>
</tr>
<tr>
<td>7</td>
<td>Tenure Coefficient Name and Value</td>
</tr>
<tr>
<td>8</td>
<td>Coefficient Name and Value for Occupation Variable = 1</td>
</tr>
<tr>
<td>9</td>
<td>Coefficient Name and Value for Occupation Variable = 2</td>
</tr>
<tr>
<td>10</td>
<td>Coefficient Name and Value for Occupation Variable = 3</td>
</tr>
<tr>
<td>11</td>
<td>Coefficient Name and Value for Occupation Variable = 4</td>
</tr>
<tr>
<td>12</td>
<td>Coefficient Name and Value for Occupation Variable = 5</td>
</tr>
<tr>
<td>13</td>
<td>Coefficient Name and Value for Occupation Variable = 6</td>
</tr>
<tr>
<td>14</td>
<td>Coefficient Name and Value for Occupation Variable = 7</td>
</tr>
<tr>
<td>15</td>
<td>Coefficient Name and Value for Occupation Variable = 8</td>
</tr>
<tr>
<td>16</td>
<td>Coefficient Name and Value for Occupation Variable = 9</td>
</tr>
<tr>
<td>17</td>
<td>SDA Unemployment Rate Coefficient Name and Value</td>
</tr>
<tr>
<td>18</td>
<td>Industry Coefficient Name and Value</td>
</tr>
</tbody>
</table>

Example Values: BASE -0.7293  
HGR0 +0.0000

May 25, 1994
MARYLAND PROFILING EFFORT

LOCAL OFFICE CONTROL CARD:  (EMNP.ENDS.CTLDCS(PROFLOFF))

<table>
<thead>
<tr>
<th>FIELD NAME</th>
<th>FORMAT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO-NUMBER</td>
<td>99-</td>
<td>Local Office Number</td>
</tr>
<tr>
<td>LO-NAME</td>
<td>X(15)</td>
<td>Local Office Name</td>
</tr>
</tbody>
</table>

There are 30 local office values defined in this control card, one local office per card. Example: 01-BALTIMORE 02-GLEN BURNIE

SERVICE DELIVERY AREA WITH UNEMPLOYMENT RATE AND INDUSTRY PERCENT OF CHANGE SEQUENTIAL FILE: (EMNP.ENDS.PROFILE.LMDATA)

There are 13 SDAs: 001-012, 999; and 12 Industry Codes 00-10, 99

<table>
<thead>
<tr>
<th>SDA</th>
<th>PIC X(3)</th>
<th>Service Delivery Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>URATE</td>
<td>PIC (9998)</td>
<td>Unemployment Rate of Change</td>
</tr>
<tr>
<td>INDO0-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 00</td>
</tr>
<tr>
<td>INDO0-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 00 % of Change</td>
</tr>
<tr>
<td>INDO1-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 01</td>
</tr>
<tr>
<td>INDO1-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 01 % of Change</td>
</tr>
<tr>
<td>INDO2-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 02</td>
</tr>
<tr>
<td>INDO2-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 02 % of Change</td>
</tr>
<tr>
<td>INDO3-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 03</td>
</tr>
<tr>
<td>INDO3-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 03 % of Change</td>
</tr>
<tr>
<td>INDO4-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 04</td>
</tr>
<tr>
<td>INDO4-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 04 % of Change</td>
</tr>
<tr>
<td>INDO5-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 05</td>
</tr>
<tr>
<td>INDO5-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 05 % of Change</td>
</tr>
<tr>
<td>INDO6-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 06</td>
</tr>
<tr>
<td>INDO6-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 06 % of Change</td>
</tr>
<tr>
<td>INDO7-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 07</td>
</tr>
<tr>
<td>INDO7-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 07 % of Change</td>
</tr>
<tr>
<td>INDO8-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 08</td>
</tr>
<tr>
<td>INDO8-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 08 % of Change</td>
</tr>
<tr>
<td>INDO9-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 09</td>
</tr>
<tr>
<td>INDO9-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 09 % of Change</td>
</tr>
<tr>
<td>INDO10-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 10</td>
</tr>
<tr>
<td>INDO10-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 10 % of Change</td>
</tr>
<tr>
<td>INDO99-NUMB</td>
<td>PIC X(4)</td>
<td>Industry Number: 99</td>
</tr>
<tr>
<td>INDO99-VALUE</td>
<td>PIC S(999999)</td>
<td>Industry Area 99 Default % of Change</td>
</tr>
</tbody>
</table>

Example Record for Service Delivery Area 001, 002, and 999:

| SDA | URATE | INDO0 | INDO1 | INDO2 | INDO3 | INDO4 | Cont>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>01.6</td>
<td>00-00.0000</td>
<td>01-00.0000</td>
<td>02-00.3030</td>
<td>03-01.9777</td>
<td>04-03.3737</td>
<td>&gt;&gt;&gt;&gt;&gt;</td>
</tr>
<tr>
<td>002</td>
<td>10.3</td>
<td>00-00.0000</td>
<td>01-00.0000</td>
<td>02-00.3031</td>
<td>03-01.9797</td>
<td>04-03.3777</td>
<td>&gt;&gt;&gt;&gt;&gt;</td>
</tr>
<tr>
<td>999</td>
<td>11.2</td>
<td>00-00.0000</td>
<td>01-00.0000</td>
<td>02-00.3000</td>
<td>03-01.9700</td>
<td>03-03.3700</td>
<td>&gt;&gt;&gt;&gt;&gt;</td>
</tr>
</tbody>
</table>

May 25, 1994

250.
MARYLAND PROFILING EFFORT

ATTACHMENT E

REPORT FORMATS

Error Report
Ranking Report
Management Report 1
Management Report 2
Management Report 3

May 25, 1994

251.
<table>
<thead>
<tr>
<th>SSN</th>
<th>FLG-HIGR</th>
<th>FLG-TENURE</th>
<th>FLG-OCC</th>
<th>FLG-IND</th>
<th>FLG-SDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
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<td>18 13%</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>99</td>
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<td>3 2%</td>
</tr>
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</table>
MARYLAND PROFILING EFFORT

ATTACHMENT 7

QUESTIONS/ANSWERS

EXTRACT PROGRAM QUESTIONS:

1. Do we want to create one extract program that handles both input files (JS/UI), or do we want an extract program for each input file? One extract program which handles both inputs.

2. Do we want to include the data conversion in the extract program? No

3. What data format will we use for the extract file? Sequential

4. What did Maryland use for the extract criteria of the week of claimant data previously? Check Issue Date

5. Can we use the first pay indicator to identify first pay claimants? No, the first pay indicator is a flag that is turned on when the first payment is scheduled, and then turned off when the first payment is generated.

6. In a memo from the Maryland office, a requirement was stated to exclude claimants, from the profiling effort, who were selected for the Maryland work search demonstration. What data element can be used to obtain this information so it can be used as an exclusion criteria in the profiling extract program? Use the claimant type field with a value greater than 15. This identifies claimant who have been randomly selected to participate in work search demonstrations. Since these claimants have already been slated for services, profiling is not required.

7. Are partial first pays a problem? No, first pay represents the validity of a UI claimant for the profiling effort. Based on this, even a partial payment concludes that they are valid claimants.

8. The DOT (Occupation) code is on both the UI and the JS data files. Which one is to be used? The DOT code from the JS file is preferred, only use the DOT code from the UI file if blank in the JS file.

9. How does the "01/01/01" and "11/11/11" affect the extract and exclusion process, and what does it represent? The dates 01/01/01 and 11/11/11 are used in the Maryland office as a way to expedite check processing. Those claimants with a 11/11/11 in the return to work date (CPA-RTW-DT) should be included in profiling since this is not a valid return to work date. Handle the use of 01/01/01 or 11/11/11 in the BPE-START-DATE or BPE-END-DATE fields as invalid data.

10. Is the sequential SSN number, part of the unemployment insurance record key, to be retained in the extract file? No, the sequential number will be used as a reference in the extract process, but will not be retained in the extract file.

May 25, 1994
MARYLAND PROFILING EFFORT

11. How will multiple values for fields like the occupation code be handled? Only one of the values will be used in the profiling effort, the use of multiple codes is too complicated for initial implementation of this process. For fields like occupation, the code will be obtained from the JS data files, or from the characteristics section of the UI data file if not recorded in the JS data file.

12. Is veteran information printed on the profiling report, and subsequently needed in extract file? Yes, but only as a Yes/No flag. The Veteran Code is retained in both the UI and JS files, and has conflicting representations of the values stored. The inclusion of the extraction and translation of the data will be reviewed in the post implementation process.

13. Resolve the issue of different size occupation codes in the JS and UI files? The JS occupation code is 9 positions (agency standard) and the UI occupation code is 10 positions. The extra position is housed at the end of the regular occupation field. Since the profiling effort translates only the first three positions of the occupation code, the 10th position will not affect the profiling effort. No further research was performed.

14. Do we use the Union Affiliation field in the UI data structure for the exclusion process? No, if a claimant is union affiliated, this does not mean they are attached to a Union with Hiring Hall services, which is the exclusion requirement.

15. Are checks always issued on the same day? No, a check can be produced any day of the week, therefore a date range to identify a weeks worth of claimant data will be required in the extract process.

CONVERSION PROGRAM QUESTIONS:

1. Do we save the original values of the fields after the data conversion? Yes, the conversion results will be loaded to unique fields on the same extract file.

2. Are default values referenced/loaded during the conversion process or during the profiling process? The default values will be referenced and stored on the extract file during the conversion process.

3. What are the conversion requirements for the DOT (Occupation) code? Translates first 3 positions of the 9 digit field to a 1 digit code with values of 1 to 9.

4. What are the conversion requirements for the SIC (Industry) code? Translates all 6 positions of the field to a 2 digit code with values of 00 to 10. NOTE: The translation of the SIC code from a 6 position field to a 2 position field is identifying the divisions A-K. A-K values will not be used in profiling, the numbers 00-10 will be retained.

May 25, 1994

262.
MARYLAND PROFILING EFFORT

6. How is the FIPS code field translated to the Service Delivery Area? The FIPS code field is 5 positions and represents two values, the first two positions represent the state code, and the last three positions represent the county code. The state code of "24" for Maryland is validated, and the County code converted to the Service Delivery area. This conversion of county code to service delivery area is constant and therefore hard coded in the process.

PROFILING PROGRAM QUESTIONS:

1. What goes into the "Coefficient Table"? The coefficient table housed the coefficient values for the state baseline (1), education (2-6), Tenure (7), Occupation (8-16), Unemployment (17), and Industry (18). These coefficients are used in the formula for ranking the claimants.

2. How do the claimant converted values relate to the external tables of values like the Unemployment Rate and Industry Percent of Change? This has been answered in the detailed requirements definition of the Profiling Program. See that section of the document for the answer to this question.

REPORTING QUESTIONS:

1. Will the reports be written to disk and printed, or only printed? Only printed.

2. What are the requirements for the distribution of printing for this report to the local offices? The Ranking Report will be routed to each local office, who will only receive the section of the report related to that specific office.

OVERALL PROCESS QUESTIONS:

1. How many times will a claimant be profiled? 1 Time.

2. When should we create a permanent disk file in the process? Two permanent output disk files will be created during the profiling process. The extract program will create the first permanent disk file, since the input files are so large and expensive to access. The cumulative process will create the second permanent disk file, for long term retention. The cumulative process will run as the last step and after all data manipulations have occurred.

3. How should we store the weekly claimant data? The data will be stored in a cumulative file on disk, appending each week of claimant data to the existing accumulation of record.

4. How long will weekly extract file be retained? Since historical statistical analysis will probably occur, a yearly cumulative file will be created and retained on disk.

May 25, 1994
5. When should the backup be performed, stored on what medium, and how will it be done? Based on the requirement to house the data in a yearly cumulative file, a generation data group (GDG) approach will be used. The backups will be created during the cumulative process and retained on disk. The GDG limit has been set to 10 to allow ten weeks for identification and resolution of problem or errors in processing.

6. What day of the week is proposed for the processing the profiling cycle and how will this fit in a current Maryland production run? The Maryland office has two production runs, one for UI and one for JS. Profiling will be attached to the JS production run on Monday night.

7. Is there a way to generate the date field, instead of having to manually update weekly? We see the need to keep a date field control card since it allows flexibility in the frequency of the cycle. An automated update of the control card would alleviate human errors. For the first installation we will use the date control card with a manual update process and implement the automated update process after initial implementation.

May 25, 1994

264.
APPENDIX B: SPSS CODE USED TO DEVELOP THE MARYLAND MODEL
SPSS CODE FOR MARYLAND MODEL

*****************These lines read in the historic data file*****************

set mxwarns=100000

data list file=jun93smp
/ssn 1-9 origloff 10-11 county 12-16 wba 17-22 (2) actamt 23-30 (2) empsic 31-36 higr 37-38 (a) dot3 39-41 tenure 48-50
save outfile=bigfile1.sys

*****These lines transform the data elements from the file into the************
*****formats that will be used by the model.*******************************
get file=bigfile1.sys
autorecode variables=higr
/into educ
recode educ (1=sysmis) (2 thru 13,29=1) (14=0) (15 thru 21,24 thru 27,22=2)
(23,28-3) (30,31=4)
formats educ (f1.0)

select if (tenure gt 0 and tenure lt 732)
compute tendec=tenure/12
compute tenyrs=trunc(tendec)
formats tenyrs (f2.0)

if (county=24510) sda=2
if (county=24003) sda=11
if (county=24005) sda=1
if (county=24021) sda=5
if (county=24039) sda=10
if (county=24045) sda=10
if (county=24047) sda=10
if (county=24027) sda=12
if (county=24013) sda=12
if (county=24031) sda=4
if (county=24033) sda=3
if (county=24009) sda=6
if (county=24017) sda=6
if (county=24037) sda=6
if (county=24015) sda=8
if (county=24025) sda=8
if (county=24011) sda=9
if (county=24019) sda=9
if (county=24029) sda=9
if (county=24035) sda=9
if (county=24041) sda=9
if (county=24001) sda=7
if (county=24023) sda=7
if (county=24043) sda=7
if (county lt 24001 or county gt 24510) sda=999
formats sda (f3.0)

if (empsic ge 010000 and empsic le 099999) ind=0
if (empsic ge 100000 and empsic le 149999) ind=1
if (empsic ge 150000 and empsic le 179999) ind=2
if (empsic ge 200000 and empsic le 399999) ind=3
if (empsic ge 400000 and empsic le 499999) ind=4
if (empsic ge 500000 and empsic le 519999) ind=5
if (empsic ge 520000 and empsic le 599999) ind=6

266.
if (empsic ge 600000 and empsic le 699999) ind=7
if (empsic ge 700000 and empsic le 899999) ind=8
if (empsic ge 910000 and empsic le 979999) ind=9
if (empsic ge 990000 and empsic le 999999) ind=10
formats ind (f2.0)

if (dot3 ge 000 and dot3 le 199) occ=1
if (dot3 ge 200 and dot3 le 599) occ=2
if (dot3 ge 300 and dot3 le 399) occ=3
if (dot3 ge 400 and dot3 le 499) occ=4
if (dot3 ge 500 and dot3 le 599) occ=5
if (dot3 ge 600 and dot3 le 699) occ=6
if (dot3 ge 700 and dot3 le 799) occ=7
if (dot3 ge 800 and dot3 le 899) occ=8
if (dot3 ge 900 and dot3 le 999) occ=9
formats occ (f1.0)

compute wba26=(wba*26)
compute propben=(actamt/wba26)
if (propben ge 1) extst=1
if (propben lt 1) extst=0
formats extst (f1.0)

save outfile=bigfile2.sys

*****These lines read in the BLS industry employment change data and match****
*****with records on the existing file.******************************************************************************
data list file='2qempch.txt'
/sda 5-6 ind 8-9 q292 11-16 q293 18-23 pctch 25-30 (4) ratio 33-38 (4)
   wpctch 41-47 (4)
select if (not sysmis(ind))
recode sda (1=2) (2=11) (3=1) (4=5) (5=10) (6=12) (7=4) (8=3) (9=6) (10=8)
   (11=9) (12=7) (13=999)
formats sda (f3.0)
sort cases by sda ind
save outfile='2qempch.sys'

get file=bigfile2.sys
sort cases by sda ind
match files file=*
   /table='2qempch.sys'
   /by sda ind
save outfile=bigfile3.sys

****These lines read in the unemployment rates from Maryland’s LMI office,*****
*****exclude records containing missing or invalid data for certain elements,***
*****and drop several fields not needed for estimating final equation.************
data list file=unemp.txt
/sda 5-6 sdatur 8-11 (1)
sort cases by sda
save outfile=unemp.sys

get file=bigfile3.sys
select if (not sysmis(ind))
select if (origloff ne 97)
select if (not sysmif(educ))
select if (sda ne 999)
select if (not sysmis(occ))
select if (not sysmis(exst))
match files file=* 
/table=unemp.sys 
/by sda 
save outfile=bigfile4.sys 
/drop ssn higr county wba empsic tenure tendec propben

********These lines specify the variables used in estimating the final ******** 
********equation and conduct the estimation using logistic regression.******** 

get file=bigfile4.sys 
if (ratio ge .03) indch3=pctch 
if (ratio lt .03) indch3=wpctch 

logistic regression 
/variables=exst with educ tenyrs indch3 occ sdatur 
/categorical=educ occ 
/contrast (educ)=special(0 1 0 0 0 
0 0 1 0 0 
0 0 0 1 0 
0 0 0 0 1) 
/contrast (occ)=special(1 0 0 0 0 0 0 0 0 0 
0 1 0 0 0 0 0 0 0 0 
0 0 1 0 0 0 0 0 0 0 
0 0 0 1 0 0 0 0 0 0 
0 0 0 0 1 0 0 0 0 0 
0 0 0 0 0 1 0 0 0 0 
0 0 0 0 0 0 1 0 0 0 
0 0 0 0 0 0 0 1 0 0 
0 0 0 0 0 0 0 0 1 0) 

/external
APPENDIX C: SPSS OUTPUT FROM ESTIMATION OF THE MARYLAND MODEL
Try the new SPSS Release 4.0 features:

* LOGISTIC REGRESSION procedure
* EXAMINE procedure to explore data
* FLIP to transpose data files
* MATRIX Transformations Language

See the new SPSS documentation for more information on these new features.

1 0 get file=bigfile4.sys

File bigfile4.sys
Created: 01 JUN 94 13:16:41 - 16 variables

2 0 set length=none
3 0 ******************************************************...
4 0
5 0 if (ratio ge .03) indch3=pctch
6 0 if (ratio lt .03) indch3=wpctch
7 0
8 0
9 0 logistic regression
10 0 /variables=exst with educ tenyrs indch3 occ sdatur
11 0 /categorical=edu occ
12 0 /contrast (edu)=special(0 1 0 0 0
13 0 0 0 1 0 0
14 0 0 0 0 1 0
15 0 0 0 0 0 1)
16 0 /contrast (occ)=special(1 0 0 0 0 0 0 0 0 0
17 0 0 1 0 0 0 0 0 0 0
18 0 0 0 1 0 0 0 0 0 0
19 0 0 0 0 1 0 0 0 0 0
20 0 0 0 0 0 1 0 0 0 0
21 0 0 0 0 0 0 1 0 0 0
22 0 0 0 0 0 0 0 1 0 0
23 0 0 0 0 0 0 0 0 1 0
24 0 /external
25 0

Total number of cases: 43197 (Unweighted)
Number of selected cases: 43197
Number of unselected cases: 0

Number of selected cases: 43197
Number rejected because of missing data: 0
Number of cases included in the analysis: 43197

270.
Dependent Variable Encoding:

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01 Jun 94   SPSS Release 4.0 for Sun 4
13:24:13    SPSS for Unix -- LOCAL    Sun-4    SunOS 4.0

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| EDUC      |       |      | (2)    |
|           | 0     | 21490| .000   |
|           | **    | 8199 | 1.000  |
|           | 00    | 8812 | .000   |
|           | 01    | 3704 | .000   |
|           | 02    | 992  | .000   |

01 Jun 94   SPSS Release 4.0 for Sun 4
13:25:30    SPSS for Unix -- LOCAL    Sun-4    SunOS 4.0

Dependent Variable... EXST

Beginning Block Number 0. Initial Log Likelihood Function

-2 Log Likelihood  59775.204

* Constant is included in the model.

Beginning Block Number 1. Method: Enter

Variable(s) Entered on Step Number 1.

EDUC
TENYRS
INDCH3
OCC
SDATUR

Estimation terminated at iteration number 2 because Log Likelihood decreased by less than .01 percent.

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271.
### Variables in the Equation

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01 Jun 94 SPSS Release 4.0 for Sun 4
13:32:30 SPSS for Unix -- LOCAL Sun-4 SunOS 4.0

Preceding task required 618.65 seconds CPU time; 654.93 seconds elapsed.

26 0

25 command lines read.
0 errors detected.
0 warnings issued.
619 seconds CPU time.
656 seconds elapsed time.
End of job.

272.
DIRECTIVE : UIS INFORMATION BULLETIN NO. 12-94

TO : ALL REGIONAL ADMINISTRATORS

FROM : MARY ANN WYRSCHE
       Director
       Unemployment Insurance Service

SUBJECT : Department of Labor (DOL) Report,
           Reemployment Services: A Review of
           Their Effectiveness

The above cited report summarizes the major findings about the effectiveness of employment and training programs for dislocated workers. A key section of the report reviews the findings of relevant studies and demonstrations projects which dealt with profiling of unemployment insurance (UI) claimants and the provision of job search assistance to these claimants. The authors of this report conclude that the findings from all of the demonstration projects are positive and consistent.

The three major findings related to profiling of UI claimants and provision of job search assistance are:

- Job search assistance (JSA) clients found a job more quickly, and the need for UI benefits was reduced.

- The program was cost-effective for the Government.

- Shortening the time to search for and find jobs did not lead to jobs that paid less.

This report was produced by the office of DOL's Chief Economist. It is recommended for use by Regional Office staff and State staff engaged in the implementation of worker profiling and reemployment services systems.

Inquiries may be addressed to Wayne Zajac, 202-219-5616.

Attachment

RESCISSIONS
None

EXPIRATION DATE
May 31, 1995
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Introduction</strong></td>
<td>276</td>
</tr>
<tr>
<td><strong>II. A Review of the Relevant Research</strong></td>
<td>278</td>
</tr>
<tr>
<td>Profiling and Job Search Assistance</td>
<td>278</td>
</tr>
<tr>
<td>Self-Employment Programs for UI Recipients</td>
<td>280</td>
</tr>
<tr>
<td>Re-Employment Bonuses for UI Recipients</td>
<td>281</td>
</tr>
<tr>
<td>Short-Term Training for Dislocated Workers</td>
<td>282</td>
</tr>
<tr>
<td>Long-Term Training for Dislocated Workers</td>
<td>283</td>
</tr>
<tr>
<td><strong>III. Problems With the Current Employment and Training</strong></td>
<td>287</td>
</tr>
<tr>
<td>System for Dislocated Workers</td>
<td></td>
</tr>
<tr>
<td><strong>IV. Applying What We Know</strong></td>
<td>289</td>
</tr>
</tbody>
</table>
I. Introduction

This document reviews what is known about improving the labor market prospects of dislocated workers. There is substantial evidence that certain reemployment services do yield high returns. For example, job search assistance helps dislocated workers find new jobs sooner and saves the government money. Several innovative uses of Unemployment Insurance (UI) funds have also been successful. On the other hand, some current dislocated worker programs have not been effective, and need to be fixed or eliminated.

The stakes of this assessment are substantial. Even with economic recovery, many Americans are having difficulty getting new jobs that pay good wages.

- In 1992 and 1993, more than three in four laid off workers were on permanent layoff — the highest annual proportions since tracking began in 1967.

- The problem of displacement increases during periods of recession and diminishes as the economy moves into recovery. But there is a significant amount of structural unemployment (permanent loss of jobs and difficulty in finding new ones) that persists throughout cyclical swings in economic activity. For example, during the recovery years from 1984 to 1989, an average of 1.8 million full-time workers were displaced each year. During 1990, 2.2 million workers were displaced.\(^1\)

- Workers who are displaced have great difficulty finding new work that pays wages comparable to those in the job they lost. A Congressional Budget Office study found that more than half of displaced workers were still unemployed a year after losing their jobs, or were employed in jobs paying less than 80 percent of their former wages.\(^2\)

- The length of unemployment spells has increased over the last two decades. During the 1970s, an average of 11 percent of the unemployed were out of work for 6 months or longer; in the 1980s, the figure was 15 percent; thus far in the 1990s, it is 16 percent. Last year, more than one in five of the unemployed — 21 percent — hadn’t worked for 6 months or more.

It also bears noting that displacement is not confined to a particular socio-economic group. Table 1 shows the characteristics of full-time workers displaced in 1990 compared to the American workforce as a whole. With few a exceptions, the population of displaced workers is similar to the workforce as a whole.

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1 Directly comparable data for 1991 and on are not yet available. We have used data on displacement of full-time workers because data were more readily available for this population. But displacement is a problem for part-time workers as well, and they will also be served by the Administration’s displaced worker initiatives.

The following analysis reviews the effectiveness of what government has done in the past to assist dislocated workers, and what lessons this evidence provides for how it can do better in the future. Section II of this paper examines and summarizes existing research on specific types of employment and training programs of direct or indirect relevance to dislocated workers. Section III then analyzes some of the systemic problems in the way the nation provides reemployment services.

The analysis concludes with a summary discussion of how the design of the Clinton Administration’s dislocated worker initiative — the Reemployment Act of 1994 — reflects and incorporates the lessons of previous efforts.
II. A Review of Relevant Research

A wide variety of employment and training programs for dislocated workers have been evaluated in recent years. The sections below review these evaluations. We have attempted to cover all of the credible empirical studies in this area.

Probably the most reliable form of evidence on the post-program labor market effects of employment and training programs comes from random-assignment experimental studies. Such evaluations are based on randomly allocating potential participants between a “treatment group” which is eligible to receive program services, and a “control group” which is not. In a well-designed experimental study, the two groups differ in no systematic way other than their eligibility to participate in the program being evaluated. For that reason, comparing the employment and earnings experience of the two groups after the program is completed yields a straightforward assessment of the difference that the program makes. Statistically significant differences in outcomes are assumed to be the result of the services received by the treatment group. This method produces an estimate of the average change in earnings or employment that results from the program being evaluated.

While random assignment experiments produce extremely useful information, they are difficult and expensive to implement, so comparatively few have been conducted. The literature on randomized experimental evaluations of training programs for dislocated workers is meager. Only two or three of the hundreds of short-term training programs for dislocated workers that have been active over the past decade have been evaluated using a random assignment experiment, and none of the long-term training programs have been evaluated in this way. Because of this, the sections below must occasionally rely on evidence from studies which examine the impacts of training on populations with somewhat different characteristics than dislocated workers.

Profiling and Job Search Assistance

Traditionally, the vast majority of unemployed workers receiving unemployment insurance (UI) benefits have not received reemployment services to help them find new jobs. A 1988 study found that even among those long-term UI recipients who exhausted their benefits — typically after 26

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3 Generally, evaluators are more willing to accept that a difference between a control and a treatment group is real when that difference is statistically significant. Statistical significance is determined by a mathematical test which finds the likelihood that a difference would occur through random chance, instead of because of the effect of the services received by the treatment group. Usually, evaluators will put substantial weight on a result if there is no more than a 5% probability that it occurred through random chance. Findings with a 10% chance of such error are also often trusted as useful information about the effectiveness of an intervention.

4 Members of the control group often receive some education services themselves from programs other than the program that is being evaluated. Thus, the experimental results show only the additional impact of the particular training program being evaluated beyond any other training programs that are used. This means that the impacts from these studies are generally too low an estimate of the total effects resulting from participation in all training programs.
weeks of joblessness — just 6% were receiving job search assistance more intensive than the simple work registration offered by the Employment Service, and only 1% attended training programs.\(^5\)

A recent series of experiments in five states — Minnesota, Nevada, New Jersey, South Carolina, and Washington — examined the effectiveness of a two-stage combination of “profiling” and job search assistance in reducing unemployment.\(^6\) The profiling stage, which occurs when individuals first claim their UI benefits, uses demographic and work history information to identify those persons who are most likely to remain unemployed for the long-term, and thus have the greatest need for reemployment services. The identified recipients then receive intensive job search assistance and counseling from UI staff.

These demonstrations were conducted as random assignment experiments. The impacts of the experiments are shown in detail in Table 2. The exact results vary, but the general findings are quite consistent:

- **Job search assistance (JSA) clients found a new job more quickly, and the need for UI benefits was reduced.** Those receiving job search assistance found new employment an average of one-half of a week to 4 weeks sooner than similar individuals who did not receive assistance. In most states the unemployed averaged around a one week reduction in the duration of UI benefit receipt.

- **The program was cost-effective for the government.** In each state experiment, the savings in UI payments plus the increase in tax receipts due to faster re-employment were more than enough to pay for program costs. Savings to government averaged around $2 for every dollar invested in targeted job search assistance.

- **Shorter job searches did not lead to jobs that paid less.** Some have argued that mandatory job search leads to workers taking jobs that do not pay as well as jobs they otherwise would have found without the program. There was no evidence that this was the case. In the two experiments where earnings data were available, job search participants not only found a job more quickly, but hourly earnings were similar to those in jobs found by non-participant workers.

Where information on the time pattern of the earnings gains was available, job search participants earned more than controls during their first year or two after receiving help finding a job. After this period, other workers who had not received JSA began to earn similar amounts. The earnings gains produced by JSA are significant but not long-lasting.

The results of the experiments were generally similar, in that all produced significant reductions in UI receipt. However, two experiments — in Minnesota and Nevada — had positive results greater than the others. Programs in these states reduced UI receipt by 4 weeks (Minnesota) and 1.6 weeks


These states provided the most intensive job search assistance services to their clients, including individual case management. This may partially account for the magnitude of the impacts in these states.

Profiling and job search assistance were mandated for all state UI programs in the Extended Unemployment Compensation legislation enacted in 1993. Implementation of this directive will not be complete for several years.

Self-Employment Programs for UI Recipients

Self-employment programs allow unemployed workers the option of income support through the UI system while they start a small business. Some programs also give a small lump-sum payment to the UI recipient to use as seed capital for the new business. Program participants are provided management training and assistance in setting up their business.

In 1987, the Department of Labor launched demonstration projects in Washington and Massachusetts that added a self-employment option to the UI programs in those states. Although the details of the programs differ, they both require enrollees to participate in entrepreneurial training and make use of business counseling in order to receive self-employment allowances or (in the case of the Washington program) a lump-sum payment to help set up their business. The programs were evaluated in a random assignment experiment that compared program participants to a control group who had expressed interest in starting a business but were not allowed to participate in the program.

Self-employment is not for everyone; research indicates that only a small fraction (2% to 5%) of UI recipients are likely to enter these programs. Results from the demonstration projects also indicate that those who do try self-employment are disproportionately better educated, older, and white-collar.

For those who were interested in self-employment, though, the results from these evaluations were quite encouraging:

- The likelihood of starting a business roughly doubled for those participating in the program. In both demonstrations about 25% of the control group managed to start their own business, whereas roughly 50% of program participants did.

- Businesses started by program participants were just as likely to succeed over the first 18 months of operation as businesses started by members of the control group were. This finding held true for both demonstrations.

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7 Some part, though not all, of the very large effects found in Minnesota are probably accounted for by selection bias in the control group. About a third of the controls were not UI eligible and thus differed from the program participants.

• Program participants were significantly more likely to enter any employment than control group members. Over the total 18-month followup period, the program increased the total time spent employed (either self-employed or employed by others) by two months in Washington and three months in Massachusetts.

• In Massachusetts, the demonstration substantially increased total earnings. Self-employment participants in Massachusetts earned an average of $5,000 more than non-participants in the control group over the 18 months following entry into the program. There were also positive earnings impacts in Washington, but they were not statistically significant.

The NAFTA implementing legislation passed in 1993 allows states to use monies from the UI trust fund to pay self-employment allowances under state-established self-employment programs.

Re-Employment Bonuses For UI Recipients

Re-employment bonus programs pay a reward to unemployed workers who find new employment within a specified time and keep it for some minimum period. Usually the award is around 3 to 6 times the weekly UI benefit amount — about $500 to $1,500, depending on the state and the individual.

Random assignment experiments in Illinois, Pennsylvania, and Washington have found that eligibility for a reemployment bonus can produce significant declines in the time spent receiving UI benefits. Even though only about 10% to 15% of the potentially eligible clients actually made use of the bonus, the average length of unemployment among the entire group of eligibles was reduced by 1/2 to 1 week.

Most of the evaluations found that the average size of the bonus paid plus the administrative costs of the program were about the same as the average UI benefits saved plus the additional tax receipts gained from faster reemployment. Thus, the program paid for itself from the government’s perspective. However, the program more than paid for itself from the perspective of society as a whole because of the additional work and wages that it generated.

Some economists have pointed out that a bonus system could draw more people into the UI system, thus driving up government costs. Some unemployed workers are eligible for UI benefits but choose not to receive them, because they expect to be recalled to their old job or find a new job soon. Unless safeguards were built in, bonuses would give these people an additional incentive to claim UI benefits so they could receive a bonus once their new job came through. Fortunately, this issue can be addressed in the design of a bonus system. For example, the eligibility for the bonus could be limited in certain ways (e.g., to those workers who are not recalled to their old job), and the size of the bonus could be capped to prevent an overly large incentive for “gaming” the system. (This is the approach taken in the Reemployment Act.)

Short-Term Training Programs for Dislocated Workers

Short-term (3 to 6 month) skills training does not appear to have been very successful in producing earnings gains for dislocated workers. In three studies, two of which were randomized experiments, workers offered relatively short-term training plus job search assistance showed no significant increase in earnings or employment when compared to workers receiving job search assistance alone.10 This training consisted of 3 to 6 months of either classroom or on-the-job training. The workers did not receive any income support beyond regular UI payments to support their training efforts.

These studies provide suggestive but not conclusive evidence that short-term training may not work for many dislocated workers. In two of the studies the follow-up period was only one year, not long enough for all the effects of classroom training to show up.11 In the third there was an exceptionally low take-up rate for training — only 15% of workers chose to participate — and this led to problems in determining training effects.12

More research would be useful here. This is especially true because short-term training programs for groups other than dislocated workers have proven successful in raising earnings:

- **The San Jose Center for Employment and Training (CET):** Founded in 1968, CET provides 4 to 6 months of intensive vocational training to disadvantaged clients. CET is marked by a tight integration between education and job skills training, with an emphasis on the latter. At entry trainees immediately begin vocational training which teaches them new skills in a job context. CET is also marked by its strong connections to the local business community. In each new community CET enters, an industrial advisory board is set up to assist in skill selection and curricular review. Executives from local firms serve on CET’s board of directors.

CET has succeeded in providing education and job training services for two groups that are particularly difficult to serve — minority female single parents and young high school dropouts. Two randomized experimental evaluations found that CET training created earnings gains averaging thousands of dollars per year for students from these groups.13 Both evaluations found that CET training was extremely cost-effective, bringing benefits to society about twice its costs.

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10 These results were found in the Texas experiments, the Buffalo Downriver training project, and the New Jersey Reemployment Demonstration project. Leigh, Duane, “An Overview of Existing Evaluation Evidence For the U.S.”, in *Assisting Workers Displaced By Structural Change: An International Comparison*, Upjohn Institute, Forthcoming, 1994

11 The Texas experiments had a year follow-up; the Buffalo study tracked workers for 6 months after program completion.


- **Job Training Partnership Act (JTPA) for Adults:** JTPA is the major Federal training program for disadvantaged adults, enrolling over 300,000 each year. JTPA provides a number of services, including classroom training, on-the-job training, and job search assistance. As of 1993, the average JTPA adult trainee stayed in the program for 4 months.

A major experimental evaluation of JTPA found that the earnings of adults who participated increased significantly by the second year after completing the program. Findings were especially strong for women, but men also appeared to benefit. Overall, JTPA increased the earnings of both adult men and women by an average of $850 during the second year after program completion. This represented earnings gains of 15% for women and 10% for men. The most successful services appeared to be job search assistance (JSA) and on-the-job training (OJT) — adults designated for these services averaged earnings gains of over $1,000 per year.

The evaluation also estimated that JTPA produced social benefits 50% greater than its costs. These large benefits were produced within just two and a half years after clients enrolled in the program.

The economically disadvantaged clientele of these programs was generally poorer, younger, and less well educated than most dislocated workers, so these results cannot simply be generalized to dislocated workers. In addition, the positive impacts of these programs may be partly due to the job search assistance they provide, which is not a form of training. But their success does suggest that well-implemented short-term training can produce benefits for certain workers.

**Long-Term Training Programs for Dislocated Workers**

There are no random-assignment evaluations of the effectiveness of long-term (1 year or more) classroom training for dislocated workers. But evidence on returns to post-secondary education suggests that long-term training is a sensible approach for many dislocated workers.

No long-term training programs for dislocated workers currently exist that are directly comparable to the proposal in the Reemployment Act, and the evidence is scant even on indirectly comparable programs. The evidence on the Trade Adjustment Assistance (TAA) program is a case in point. TAA is a major supplier of long-term training to workers displaced by trade, and two evaluations of it have recently been completed. Unfortunately, these evaluations have not been able to reliably determine training impacts:

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15 About half of workers enrolled in the TAA program receive training, and the training lasts for an average of 66 weeks. Workers are supported during training by both their UI payments (until these are exhausted) and up to a year of long-term income support provided by the TAA program. Corson, Walter et. al. *International Trade and Worker Dislocation: Evaluation of the Trade Adjustment Assistance Program*, Mathematica Policy Research, April, 1993. It should be noted that the design of the TAA program differs substantially from the proposed new system in the Administration's Reemployment Act. Thus, results from TAA evaluations are not directly applicable to the proposed new reemployment system. These design issues are discussed in the next section.
• A Mathematica study found that TAA trainees had lower earnings over a 3-year period than other dislocated workers who did not receive training. It is difficult to know how to interpret this, since researchers found that trainees were a self-selected group who were more likely to have made major career changes than non-trainees. This fact in itself would lead to lower earnings. For this reason, the researchers found they could not draw any conclusions on training effectiveness.

• A second evaluation of TAA, by the Office of the Inspector General at the Department of Labor, found that many workers receiving TAA benefits were reemployed at lower wages than they had received at their previous jobs. However, these TAA recipients were not compared to any control or comparison group of dislocated workers to determine if their earnings loss was more or less than would have been expected for a typical job loser. And the evaluation found that half the TAA recipients did not receive long-term training.

Also, it should be noted that the design of the TAA program differs substantially from the proposed Reemployment Act.

The evidence is clearer for other forms of long-term education and training. There is a great deal of solid research on the impacts of long-term post-secondary education. The earnings gains that are associated with post-secondary education, and the steady growth in the importance of advanced education, suggest that long-term skill training would be a worthwhile investment for many dislocated workers. The evidence on the earnings impacts of community colleges is especially relevant here, since many government programs deliver long-term training to dislocated workers by contracting with local community colleges to provide vocational courses.

It is well known that a college education is associated with greatly increased earnings and employment prospects. In 1992 the median earnings of males with 4-year college degrees were $36,700, men with 2-year associate degrees earned $30,000, but male high school graduates earned just $22,800.

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16 Corson, Walter et. al., ibid. Earnings for the trainees steadily increased over the observation period. In a longer observation period it is possible that they would have had comparable or greater earnings than non-trainees.

17 The researchers stated that “because individuals were not selected randomly to participate in training, we cannot interpret the differences in the employment and earnings of trainees and non-trainees as unbiased estimates of the impact of training on these outcomes.” Ibid, p. 121.


There is consensus among economists that advanced post-secondary education and training is becoming more important to economic success.\(^{21}\) Between 1979 and 1992, the gap in median income between male high school and 4-year college graduates doubled from roughly 40% to about 80%.\(^{22}\) (Increases in the rewards to education are also taking place in other advanced nations, although they are not as large as those occurring here.)\(^{23}\)

In recent years a number of studies have examined the returns to post-secondary education in more detail. Here are the key findings:

- **The higher employment and income of college graduates seems to be a result of education — it is not due to pre-existing differences between people who do go to college and people who don’t.** College students tend to come from more privileged families or have more innate ability than those who don’t go to college. But researchers have estimated that even after adjusting for differences in ability and family background, the average worker with college experience earns about 5% to 10% more per additional year of college courses completed than an otherwise similar high school graduate.\(^{24}\)

- **Both community colleges and 4-year colleges have similar payoffs per year of education completed.** Community colleges provide mostly vocational education — fully two thirds of community college students major in vocational areas, as opposed to just 5% of those in 4-year schools.\(^{25}\) Despite this fact, income gains per year of education completed are not significantly different between 2-year and 4-year colleges.\(^{26}\)

- **Even students who did not complete degrees enjoyed substantial income gains.** Substantial earnings increases appear to result from post-secondary credits whether or not students complete formal degree programs. Even students who dropped out before degree completion show earnings gains commensurate to the number of years that they completed.\(^{27}\)

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22 U.S. Bureau of the Census, Current Population Survey. Statistics refer to males 25 years of age or over. High school graduates are compared to those with a college degree or more.


26 Kane and Rouse, ibid.


285.
These studies have not specifically examined the impacts of long-term post-secondary training for dislocated workers. Most of the students who were observed to benefit from long-term education had obtained their education while they were under 30, and had not returned to school for retraining in the middle of their career like many displaced workers do.²⁸

But the general implications of the evidence are clear. Long-term post-secondary education brings substantial benefits to students, and this type of education is becoming steadily more important to labor market success. Even a year of post-secondary education — at a community college or a 4-year school — can improve a student’s skills enough to make a measurable difference in employment and earnings.

²⁸ At the same time, it should be noted that community college students are older and displaced workers are younger than is generally supposed. According to survey data, more than a quarter of all community college students are still attending college at age 25 or over. And the Congressional Budget Office found that about half of workers dislocated from full-time jobs in 1990 were aged 18 to 34, and the ratio was similar in earlier years. Thus, a substantial minority of displaced workers are comparable in age to the students in the studies cited. Adelman, Clifford, The Way We Are: The Community College As American Barometer, U.S. Department of Education, February, 1992; Congressional Budget Office, Displaced Workers: Trends in the 1980s and Implications for the Future, February 1993.
III. Problems With the Design of the Current Employment and Training System for Dislocated Workers

The previous section analyzed the evidence on the impacts of particular employment and training programs. But there are also some basic problems with the overall design of the employment and training system in this country. The Reemployment Act attempts to address these problems.

The analysis here is only partially based on evaluation research. Most of the analysis reflects qualitative observations of the system, not precise measurement of impacts from formal evaluations.

The current Federal training and employment services system for dislocated workers is fragmented and overly bureaucratic. We have numerous programs for displaced workers — including separate programs for those laid off due to import competition, for ex-defense workers, former timber workers, and for workers laid off due to the Clean Air Act. Despite all these programs, many displaced workers do not fall into these specific categories and are not eligible for services at all. And because of the fragmented nature of the programs that do exist, even when workers are eligible they may not be aware of it.

At the local level, the complexity of the system means that administrators and applicants often have to fill out numerous forms to access the services available in their community. The unemployed in need of assistance face a confusing task, since they may have to go to many different locations just to find out what services they are entitled to and how to get them.

The current system frequently fails to rapidly deliver reemployment services to unemployed workers. One of the keys to success for reemployment programs is providing services to workers as soon as possible after they have been laid off. This capacity for rapid response was an important element of the successful job search experiments. But our current reemployment system often serves workers only after they have already been unemployed a significant amount of time.

For example, the Trade Adjustment Assistance (TAA) program provides long-term training to displaced workers. But over half of TAA trainees begin their training more than 6 months after they have been laid off. For this reason, income support benefits designed to support them in training often run out before the training is completed.29

The fragmented and categorical nature of existing programs for displaced workers contributes to these delays. The TAA program only covers a narrow subset of displaced workers. In order to determine eligibility, there are complex, time-consuming certification requirements, which often delay the start of training and cause workers to run out of benefits early.

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The Unemployment Insurance system lacks a reemployment focus. The UI system has functioned almost completely as an income security system. This is certainly an important role, but it means that the UI system has not generally done a good job at providing services that can lead to reemployment for those who are not recalled to their previous jobs.\(^{30}\) As noted earlier, in the late 1980s only 6% of workers who had exhausted their conventional UI benefits — which typically last for over 6 months — were receiving job search assistance more intensive than the simple work registration offered by the Employment Service. Just 1% of them attended training programs.\(^{31}\) While training is not appropriate for all of the unemployed, it is disturbing to find that only a tiny fraction of the long-term unemployed — who clearly have real difficulty finding an acceptable new job — are engaged in it.

Traditionally, the Employment Service has been the major source of public reemployment assistance for dislocated workers. But the Service is stretched thin. Funding for job placement services has declined by about 20% in real terms since 1979, forcing cuts in staffing; at the same time, the number of applicants seeking these services increased some 12% during the 1980s.\(^{32}\) Individualized assessment and job search services are not generally available through the Employment Service.\(^{33}\) Many job openings are not listed on its labor exchange, and those that are listed are disproportionately low-skill and low-wage.\(^{34}\)

The output of training programs often doesn’t match the needs of the labor market. Economists at the Bureau of Labor Statistics have examined the skills which training programs provide to their graduates and compared them to the skills that are in demand in the labor market. They found that training programs often turn out graduates in areas where there appears to be no need for them, while ignoring skills which are actually in demand. For example, training institutions turned out 82,000 graduates with cosmetology degrees in 1990 — but the annual number of job openings for cosmetologists expected in the future was only 17,000.

While in some cases training can be useful even if graduates do not obtain a job in the specific field they were trained in, it seems clear that better labor market information could improve the targeting of training programs. If such information was available to program managers designing their curricula, and to students deciding which course to enter, then it would be possible to attain a better match between skills training and the job openings actually available.

\(^{30}\) This situation has started to change with the passage of the Extended Unemployment Compensation legislation of 1993, which began the process of turning the UI system into a reemployment system. But a great deal of work remains in this effort.


IV. Applying What We Know

The Reemployment Act has been shaped by a review of the evaluation evidence and an analysis of the flaws in the current system. Below are the general conclusions that resulted, followed by the ways these lessons have been incorporated into the Reemployment Act and related legislation.

Conclusion 1: Job search assistance works.

The evidence clearly shows that job search assistance (JSA) pays off for both the unemployed and taxpayers. Unemployed workers find new jobs more quickly, while government benefits from reductions in unemployment insurance payments and increased taxes paid by the reemployed workers.

Accordingly, the Clinton Administration advocated nationwide implementation of targeted job search assistance for workers considered likely to have difficulty finding a new job. This provision was included in the extended unemployment compensation (EUC) legislation enacted in November, 1993. This legislation was modeled after the successful state experiments with profiling and job search assistance discussed above, and establishes the following additions to the current UI system:

- All state UI agencies are required to establish a profiling system which identifies the new UI claimants who are likely to exhaust regular unemployment compensation and who stand to benefit from job search assistance services.

- States must refer claimants identified by their profiling system to JSA and possibly other reemployment services. Claimants are generally required to participate in these services as a condition of receiving UI benefits.

The Department of Labor is working across the nation to help states implement these provisions effectively. The Reemployment Act will substantially augment this effort. The Act will create an advanced labor market information system to provide information on which jobs are in demand in each local area. This will help UI clients with their job search. And the new One-Stop Career Centers that are an important part of the Reemployment Act will provide a single, common point of access to job search assistance resources for unemployed workers.

Conclusion 2: Early intervention is a key to successful programs.

One of the keys to the job search assistance experiments discussed above was their emphasis on providing services as soon as possible after a worker has been laid off. The negative effects of long-term joblessness are well known. Workers may lose their skills, or become so discouraged and demoralized that they are no longer motivated to look for work. Employers may feel that workers who have been unemployed for a long period are undesirable. In addition, workers unemployed over
6 months may exhaust their UI benefits, leaving them in a precarious financial position. Finally, extended unemployment naturally increases income support costs for government. All of these reasons make it imperative that government provide services to the unemployed quickly.

The Reemployment Act sets up state-level Dislocated Worker Units charged with responding rapidly to news of a layoff. These agencies will collect information on current or potential layoffs and begin to provide on-site assistance to affected workers within 5 days of the date they are laid off.

Under the current system, which has a tangle of categorical programs for dislocated workers that each have different eligibility requirements and layers of paperwork, efforts at rapid response are complicated by questions about whether workers are eligible for services. The Reemployment Act consolidates these categorical programs into a single, comprehensive system for serving displaced workers. This will make it easier to provide services quickly to workers who have been laid off.

**Conclusion 3: Dislocated workers facing difficult reemployment prospects should have the option of entering long-term training.**

The combination of mixed or negative results for short-term training and the increased importance of advanced skills in the nation's economy led the Administration to decide that some displaced workers should have the option of long-term training. Currently, most displaced workers find it difficult to pursue long-term training because their unemployment benefits will run out before an extended course of training is completed. But the evidence on the impacts of post-secondary education indicates that advanced skills, which take extended education or training to develop, are fundamental to economic success.

The new system set up by Reemployment Act will allow dislocated workers, in consultation with employment counselors, to choose the type of training (short-term or long-term) that is appropriate for them. The Act will make long-term training far more accessible than it is now by providing up to a year of retraining payments equal to the workers UI benefit level in order to support some eligible workers in training. Workers with 3 or more years of tenure in their previous job who have been determined to need long-term training will be eligible for a year of support, and workers with 1 to 3 years of tenure will be eligible for 6 months of support.

When the retraining income support is combined with the 6 months of UI benefits unemployed workers are already entitled to, the worker would have enough income support to pursue full-time education for up to a year and a half. Student loans will also help facilitate this training. As noted in the research summary above, even a year of post-secondary education or training can measurably improve students' earnings prospects.

Only a minority of displaced workers are expected to use this provision. Most dislocated workers will be able to use their existing skills in a new job; serious retraining programs are often difficult and challenging; and income support payments will not be high enough to make training an attractive alternative to reemployment.35 But for those who do need it, mid-career training will be a realistic alternative.

35 These payments will be made at the UI benefit level. Most workers have a maximum UI benefit about half what they made at their previous job.
Conclusion 4: Reemployment services should make extensive use of the private sector.

Private sector and public sector training should not be mutually exclusive approaches, but complements to each other. Good public programs rely on connections with local businesses to shape their curricula and place their graduates. And a more effective public system of employment services helps private sector firms find skilled workers more easily.

Several successful programs are marked by strong connections to the private sector. For example, the San Jose CET program, a successful short-term training program discussed in Chapter II, has extensive employer involvement in the design and management of its training. CET features employer representation on their board of directors and the use of an Industrial Advisory Board drawn from private firms to help them design their training curriculum.

The Reemployment Act provides for private sector representation at all levels of the new employment services system. Decisions on how to spend Federal training funds provided by the Act will be made at the state and local level, with representatives of the business community playing a major role. At the state level, Human Resources Investment Councils will be established to help manage and design reemployment programs. A majority of the members of these councils will be drawn from private firms. At the local level, the Private Industry Councils (PICs) who help to run JTPA will play an important role in delivering services in all states. Those states which opt to build networks of One-Stop Career Centers will be guided by newly formed Workforce Investment Boards, a majority of whose members will be local CEO’s, plant managers, or other senior business officials.

The Reemployment Act also takes a page from the private sector’s book by allowing a process of competitive bidding to determine who will run the one-stop career centers which deliver Reemployment Act services. States may allow their Employment Service to manage these career centers, or they may contract out this service on a competitive basis. This will allow community colleges, private employment agencies, or other entities to run one-stop centers if they demonstrate that they can provide better, less costly, or more innovative reemployment services. Grantees will be required to meet a strict set of performance standards in order to continue receiving government funding.

Another area of private-sector involvement will be the incumbent worker training funded by the Reemployment Act. States will be allowed to spend a small portion of Reemployment Act funds to provide grants to private firms for the training of their currently employed workers who are in danger of being laid off. Thus, companies who are finding it difficult to compete due to lack of skilled workers will be able to upgrade the skills of their current workers, rather than laying them off.36

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36 A survey of manufacturing firms in Michigan who received training grants from the state government is relevant here. The study found that the subsidies did cause the firms to increase the amount of training they provided to their workers, and that this increased training resulted in improved firm productivity. See Holzer, Harry et. al., "Are Training Subsidies for Firms Effective? The Michigan Experience.", Industrial and Labor Relations Review, July, 1993.

There is also a substantial amount of research which finds that formal company-provided training increases the earnings of workers who participate in it. See Lynch, Lisa, "the Economics of Youth Training in the U.S.", The Economic Journal, September, 1993, for a review of this evidence.
Finally, the Reemployment Act’s emphasis on rapid provision of job search assistance puts the focus on getting workers into private sector employment fast, not leaving them dependent on public programs. This is one of many features that distinguish the new reemployment system envisaged by the Act from continental European systems, which often provide benefits of unlimited duration without reciprocal obligations to improve skills and participate in job search.

**Conclusion 5: Innovative uses of UI funds can pay off.**

The evidence shows that permitting states to use UI funds to pay bonuses to workers who find a job quickly can get the unemployed back to work faster. In experimental tests these bonuses paid for themselves through savings to government. Allowing states to use UI funds to support the unemployed while they try to start a small business can also bring large benefits to the unemployed.

The Reemployment Act authorizes states to use UI funds to pay reemployment bonuses to workers finding new jobs. Safeguards against abuse of this provision are also included. The Act also permanently authorizes states to use UI funds for self-employment assistance, another proven alternative for unemployed workers.

**Conclusion 6: There are systemic problems in the current services system for dislocated workers that need to be addressed.**

Section III described some failures in our current system. The Reemployment Act responds directly to these problems:

- **Fragmentation in the current system.** The Act integrates 6 separate categorical programs for dislocated workers into a single, comprehensive program. It also facilitates the establishment of one-stop career centers that will provide a common point of access to employment and training services.

- **Lack of a reemployment focus for the UI system.** Each dislocated worker will be eligible for a package of basic services that will include an individualized needs assessment and intensive job search assistance — services that are generally not provided by the current Employment Service. Those who need new skills in order to find new jobs will be eligible for subsidized training. While only a minority of workers will make use of this option, it will certainly be more than the minuscule fraction who can enter training now.

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37 The Act also emphasizes rapid job placement by allowing persons who take new jobs paying significantly less than their previous wages to retain eligibility for Reemployment Act services for up to two years, in case they later find that they need training. In this way, clients are not forced to choose between working and receiving training or other services.

38 Workers cannot collect the bonus if they return to work with their previous employer or work at their new job for less than 4 months. The bonus size is capped at 4 times the weekly UI payment.

39 A temporary authorization of this was included in the NAFTA legislation enacted in 1993.
The Reemployment Act will also set up a sophisticated nationwide labor market information system which will provide data on which types of jobs are expected to be in demand in each local area. This new system will provide more complete labor market information than the Employment Service currently does.

- **Bringing the output of training programs closer to the needs of the labor market.** The new labor market information system established by the Act will help unemployed workers identify which training program is best for them, and will help local program administrators determine what skills should be taught in order to avoid mismatches between the training provided and the jobs available.

Economic change will always be a challenge. But the lessons learned during this comprehensive review of the evidence — lessons incorporated in the Reemployment Act of 1994 — will help create a system that does a better job in meeting this challenge than our current array of programs does. These lessons suggest no panacea for the problem of unemployment. But they do suggest an array of innovative new approaches to reemployment services and common-sense solutions to problems with our current system.
Table 1
Characteristics of Displaced Workers Vs. All Civilian Workers, 1990

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Displaced Workers</th>
<th>Civilian Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 34</td>
<td>49%</td>
<td>43%</td>
</tr>
<tr>
<td>35 to 44</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>45 to 54</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>55 to 59</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>60 and older</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td><strong>JOB TENURE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 years or less</td>
<td>51%</td>
<td>35%</td>
</tr>
<tr>
<td>3 to 4 years</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>5 to 9 years</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>10 + years</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td><strong>SCHOOLING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 years or less</td>
<td>17%</td>
<td>15%</td>
</tr>
<tr>
<td>12 years</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td>13 to 15 years</td>
<td>28</td>
<td>22</td>
</tr>
<tr>
<td>16 + years</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td><strong>SEX</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>61%</td>
<td>55%</td>
</tr>
<tr>
<td>Female</td>
<td>39</td>
<td>45</td>
</tr>
<tr>
<td><strong>PREVIOUS OCCUPATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White-collar</td>
<td>46%</td>
<td>56%</td>
</tr>
<tr>
<td>Blue-collar</td>
<td>53</td>
<td>44</td>
</tr>
<tr>
<td><strong>PREVIOUS INDUSTRY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods-producing</td>
<td>46%</td>
<td>28%</td>
</tr>
<tr>
<td>Service-producing</td>
<td>52</td>
<td>72</td>
</tr>
<tr>
<td><strong>RACE/ETHNICITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>87%</td>
<td>86%</td>
</tr>
<tr>
<td>Black</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Hispanic</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experiment</th>
<th>Average change in weeks of UI received</th>
<th>Additional Earnings in First Year After UI Claim</th>
<th>Government Benefit to Costs Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota, 1988-90</td>
<td>-4.32***</td>
<td>NA</td>
<td>1.9</td>
</tr>
<tr>
<td>Nevada, 1988-89</td>
<td>-1.60***</td>
<td>NA</td>
<td>2.4</td>
</tr>
<tr>
<td>New Jersey, 1986-87</td>
<td>-.75*</td>
<td>$235</td>
<td>1.8</td>
</tr>
<tr>
<td>South Carolina, 1983</td>
<td>-.70*</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Washington, 1986-87</td>
<td>-.47*</td>
<td>$292</td>
<td>4.8</td>
</tr>
</tbody>
</table>

NA Data not available.

*** Impact significant at 1% level or better.

* Impact significant at 10% level.

Table shows the difference in various program measures between an experimental group of program participants and a randomly selected control group who did not participate in the program. For example, in Minnesota workers who were randomly assigned to a group which received profiling and job search assistance services collected an average of 4.3 fewer weeks of unemployment benefits than clients who were randomly selected not to receive services.

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