

1DP156

THE WORLD BANK

Internal Discussion Paper

EUROPE AND CENTRAL ASIA REGION

Report No. IDP-156

*Evaluations of Retraining Programs
in OECD Countries: Implications
for Economies in Transition*

by
Amit Dar
and
Indermit S. Gill

October, 1995

Office of the Vice President

Europe and Central Asia Region

Discussion Papers are not formal publications of the World Bank. They present preliminary and unpolished results of country analysis or research that is circulated to encourage discussion and comment; citation and the use of such a paper should take account of its provisional character. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations, or to members of its Board of Executive Directors or the countries they represent.

ACKNOWLEDGMENT

This paper was prepared under the general guidance of Kathie Krumm, Principal Economist, ECAVP, and the immediate supervision of Jane Armitage, Manager, Labor Markets and Social Insurance Group, PSP. The authors are grateful to Ana Revenga, EC4C1, and Michal Rutkowski, EC4HR for helpful suggestions.

TITLE: EVALUATIONS OF RETRAINING PROGRAMS IN OECD COUNTRIES: IMPLICATIONS FOR ECONOMIES IN TRANSITION

AUTHORS: Amit Dar and Indermit S. Gill

ABSTRACT

This paper presents evaluative information on retraining schemes for unemployed adults in OECD countries. These evaluations fall into three categories: experimental evaluations that compare the effects of retraining programs for participants and a control group chosen prior to the scheme's initiation; quasi-experimental evaluations that choose the control group after the program is completed; and non-scientific evaluations that use no control group. We discuss the correlates - the specific labor market problem addressed, general market conditions, and intervention design - of success and failure of these schemes, separately for programs for workers laid-off *en masse* and the long-term unemployed. Finally, we draw the implications of these findings for countries in the former Soviet Union and Eastern Europe.

TABLE OF CONTENTS

Section	Title	Page
	Abstract	i
	Summary	ii
I.	Introduction	1
II.	Evaluation Techniques	2
	1. Different techniques	2
	2. The importance of considering costs	2
III.	Evaluations of Retraining Programs in OECD Countries	3
	1. Plant closures and mass layoffs	3
	2. Long-term unemployed	4
IV.	Conclusions	8
V.	References	10
	Annex: Detailed Table of Evaluations	13

EVALUATIONS OF RETRAINING PROGRAMS IN OECD COUNTRIES: IMPLICATIONS FOR ECONOMIES IN TRANSITION

SUMMARY

Scope. This survey re-examines more than twenty retraining programs that have been evaluated in OECD countries since 1980. These evaluations use a variety of techniques ranging from randomized experiments to informal or non-scientific estimations of program effectiveness. We distinguish here between retraining schemes for workers who have been displaced due to plant closures or restructuring, and retraining programs for the long-term unemployed. These groups differ in that the long-term unemployed are a relatively heterogeneous group of individuals, are generally more dispersed geographically, and - almost by definition - have been unemployed longer than those displaced *en masse*.

Retraining for displaced workers. For those displaced *en masse*, we find that retraining programs in OECD countries have the following main features: First, these programs address manufacturing sector layoffs and plant closures, generally during deteriorating conditions in industry or aggregate employment. Second, the programs were mostly classroom-based, and accompanied by job search assistance (JSA). With only one exception, on-the-job training was not provided. Third, evaluations indicate poor results for retraining programs. Some programs resulted in modest gains in re-employment probabilities, but wage changes are generally negative. Fourth, quasi-experimental evaluations indicate that retraining programs are generally no more effective than JSA in increasing either re-employment probabilities or post-intervention earnings. Finally, retraining programs for displaced workers appear to be between two and four times more expensive than JSA. Combined with the previous finding, this implies that JSA may be more cost-effective than retraining in assisting displaced workers get jobs.

Retraining for the long-term unemployed. Retraining programs for the long-term unemployed (LTU) have the following main features: First, they are generally found during improving conditions in industry or aggregate employment, in contrast to retraining programs for workers displaced due to mass layoffs and plant closures. Second, while retraining programs for workers displaced *en masse* are mostly classroom-based, on-the-job training is somewhat more important for the LTU. Third, as with retraining programs for workers displaced *en masse*, evaluations indicate disappointing results. Few programs result in gains in either re-employment probabilities or wages. Some evaluations indicate that these programs are more beneficial for some groups such as women. Where gains in re-employment are observed, longitudinal studies generally indicate dissipation of the effects of retraining within a couple of years after the program. Fourth, evaluations also indicate that retraining programs are generally no more effective than JSA in increasing either re-employment probabilities or post-intervention earnings. Finally, retraining programs for the LTU appear to be twice as costly as JSA. Combined with the previous finding, this implies that JSA may be more somewhat more cost-effective than retraining in assisting the long-term unemployed get jobs.

Implications for economies in transition. The preliminary lessons that transition and other

Implications for economies in transition. The preliminary lessons that transition and other restructuring economies can draw from this somewhat sketchy summary of OECD experience are:

First, it is necessary to evaluate retraining (and other) public interventions using sound techniques. It is instructive that while the non-scientific evaluations of retraining programs present a rosy picture based on placement rates and other informal evidence, scientific evaluations are quite discouraging. Relying on non-scientific evaluations may lead countries to incorrect policy conclusions.

Second, rigorous evaluations, while not necessarily allowing a complete social cost-benefit analysis, can be useful guides for policymakers in solving public expenditure issues related to labor programs. Reviews of rigorous evaluations like this study find, for example, that job search assistance measures - which cost less than retraining but appear equally effective - may be a relatively cost-effective device in assisting displaced workers. The absence of such evaluations may result in inefficient allocation of government funds.

Third, OECD experience of retraining programs for workers displaced *en masse* may be useful in designing assistance programs in countries that soon expect labor-shedding from large enterprises in the manufacturing and mining sectors, such as the economies of the former Soviet Union: principally, this involves recognizing that retraining should not be the main form of assistance.

Fourth, East and Central European economies which are beginning to experience long-term unemployment can learn from OECD experience with retraining programs for the long-term unemployed, which indicates that retraining programs are more beneficial for some groups than for others within this relatively heterogeneous group of job-seekers. However, it is difficult to predict *a priori* who will benefit most from retraining: principally, these results call for using modest pilot programs, evaluating them rigorously, and then tightly targeting retraining to those for whom it is found most cost-effective.

EVALUATIONS OF RETRAINING PROGRAMS IN OECD COUNTRIES: IMPLICATIONS FOR ECONOMIES IN TRANSITION

I. INTRODUCTION AND OBJECTIVES

Industrialized countries often spend a sizeable fraction of their budgets on active labor programs. In 1992, OECD countries spent between 0.1 percent (Japan) to 2.6 percent (Sweden) of GDP on active labor programs. In several countries, training for the unemployed is "the largest category of active programs, and is often perceived as the principal alternative to regular unemployment benefits" (OECD, 1994). Countries in Eastern Europe - where the role of active labor programs is a topic of current debate - also spent between 0.2 and 3 percent of GDP on these programs (OECD, 1994a). In spite of this - possibly because such assistance is viewed almost as a fundamental right of workers in Western Europe - these programs are often not carefully evaluated outside the US. Nevertheless, evaluations of retraining programs do exist for some OECD countries. This paper surveys this evidence.

This paper examines only the evaluations of retraining programs, so the focus is largely on adults with previous work experience, rather than on unemployed school-leavers. For surveys of training programs in OECD and other countries, see OECD (1993) and World Bank (1995). We distinguish here between retraining schemes for workers who have been displaced due to plant closures or restructuring, and retraining programs for the long-term unemployed. These groups differ in important ways. First, the long-term unemployed are a relatively heterogeneous group of individuals as compared to those laid off *en masse* from a single plant or firm. Second, though some programs for the long-term unemployed are targeted at specific regions, the long-term unemployed are generally more dispersed geographically. Third, the duration of unemployment is, almost by definition, greater for the long-term unemployed. Finally, as it turns out, retraining programs for the long-term unemployed are generally a mix of classroom and in-plant training, while for displaced workers they usually are only the former.

In this paper, we present evaluative information on retraining schemes for unemployed adults gleaned from documents that describe these schemes. These evaluations fall into three categories: First, experimental evaluations that compare the effects of retraining programs for participants and a control group chosen prior to the scheme's initiation; second, quasi-experimental evaluations that choose the control group after the program is completed; and finally, non-scientific evaluations that use no control group. We discuss the correlates - the specific labor market problem, general market conditions, and intervention design - of success and failure of these schemes separately for workers laid-off *en masse* and the long-term unemployed. Finally, we draw the implications of these findings for countries in the former Soviet Union and Eastern Europe; given the sketchy nature of OECD evidence, these should be regarded as suggestive rather than conclusive.

II. EVALUATION TECHNIQUES

1. DIFFERENT TECHNIQUES

Techniques for evaluating the effectiveness of retraining labor programs can be broadly classified into scientific and non-scientific evaluations.

Scientific evaluations are of two types: experimental and quasi-experimental. Experimental evaluations require selection of both the "control" and "treatment" groups - those who receive the assistance and those who do not, respectively - prior to the intervention. If large numbers of individuals are randomly assigned to treatment and control groups, average characteristics of the two groups should not differ significantly so that any difference in outcomes can be attributed to program participation. Program impacts are then computed simply as the difference in means of the outcomes of interest between program participants and the control group. In quasi-experimental studies, treatment and control groups are selected after the intervention. To compute program effectiveness, statistical techniques are used to correct for differences in characteristics between the two groups.

Non-scientific techniques do not use control groups in evaluating interventions. They generally rely on statistics compiled by program administrators. These evaluations are of little use: without a control group, it is difficult to attribute success or failure of participants to the intervention, since these effects are contaminated by other factors such as worker-specific attributes or economy-wide changes.

2. THE IMPORTANCE OF CONSIDERING COSTS

For the purposes of informing policy decisions, an evaluation is not complete until costs of both the retraining program and its alternatives are considered. Thus, for example, if retraining is shown to be twice as costly as job search assistance to the unemployed, but only as effective as JSA in facilitating access to jobs and wage gains, then JSA is twice as cost-effective as retraining even though the two are equally effective. At least at the margin, this would constitute a case for reallocating resources from retraining to JSA. Unfortunately, costs appear to be the least analyzed aspect of these programs in OECD countries.

However, even the most careful evaluations of retraining programs cannot be used for *social* cost-benefit analysis. The main reason is that retraining programs may simply result in displacement of previously employed workers by the retrainees, so that aggregate unemployment rates remain unaffected by the intervention.¹ However, when done correctly, evaluations are good guides for *private* cost-benefit analysis, which can be used by policymakers to institute cost-recovery in public programs and in

¹ The use of flow analysis of administrative macro data to establish the overall effect of a measure on outflows from unemployment may also be indicative of the effectiveness if the program is administered on a large scale. The measure can be considered effective if there is a statistically significant positive correlation between the measure and outflows from unemployment. If a matching function is built properly with hiring of the unemployed into regular jobs regressed on the stock of vacancies and unemployment, and the stock of program participants, the methodology can bring about credible evaluation results.

promoting private provision. Evaluations may also help in deciding whether retraining programs contribute to reduced budgetary expenditures by moving people off unemployment benefits into productive employment, or whether they are a net drain in spite of being effective in doing so.

III. EVALUATION RESULTS

In this section, we analyze the results of retraining program evaluations. To do so, we classify the specific labor market problem that the program is designed to address, list other relevant labor-related indicators, describe the intervention design, classify the evaluation type, and discuss the main results.

- (a) **Labor market problem.** The immediate problems that retraining programs have been used to address in OECD countries can be categorized as assisting workers laid off en masse, those who have lost their jobs due to plant closures, and the long-term unemployed. As discussed above, workers displaced en masse and due to plant closures share crucial attributes and can be distinguished from the long-term unemployed. Evaluations of retraining programs for these two groups are discussed separately.
- (b) **Relevant indicators.** It is likely that the success of retraining programs depends on aggregate or regional labor market conditions such as unemployment rates and the state of the major industry. These indicators are reported to provide some understanding of the state of labor demand.
- (c) **Intervention design.** We examine what type of retraining is provided, e.g., whether the training is in classrooms or on-the-job, and whether retraining is accompanied by or in lieu of other measures such as job search assistance (JSA).
- (d) **Evaluation type.** Evaluations are classified into experimental, quasi-experimental, and non-scientific. While the results of non-scientific evaluations are reported, we do not draw any inferences on the success/failure of retraining programs from these evaluations.
- (e) **Main results.** The effects of the program on re-employment probability and wage gains are summarized, both for sub-groups of retrainees and intervention type.
- (f) **Special comments.** These comments mostly concern the costs of the program, when they are reported.

1. MASS LAYOFFS AND PLANT CLOSURES

Table 1 summarizes the results of studies examining the effectiveness of retraining programs for workers displaced through mass layoffs and plant closures. The annex provides more information on the same cases in the same format as Table 1. The main findings are:

- (a) **Retraining programs address manufacturing sector layoffs and plant closures.** The evaluations examined here are for retraining programs to assist workers in the automobile, shipbuilding, mining, steel and pulp industries. The number of workers laid off vary from about 500 to 3000 across cases.

- (b) *These programs are generally during deteriorating conditions in industry or aggregate employment.* Generally, these retraining programs were instituted during periods of high or rising aggregate unemployment, or contraction of the manufacturing subsector. The rationale appears to be to assist the affected workers in any way possible.
- (c) *The programs generally provided classroom or workshop training and job search assistance.* The retraining programs were mostly classroom-based, and accompanied by JSA. With only one exception, on-the-job training (OJT) was not provided or facilitated.
- (d) *There are no experimental studies and many non-scientific evaluations.* Quasi-experimental and non-scientific techniques were used for evaluating retraining programs for these workers. None of these studies were longitudinal, providing at best a snapshot of the labor market benefits of the retraining program.
- (e) *Evaluations indicate poor results for retraining programs.* Some programs resulted in modest gains in re-employment probabilities, but wage changes are often negative. Quasi-experimental evaluations (we do not discuss the results of nonscientific evaluations) indicate that retraining programs are generally no more effective than JSA in increasing either re-employment probabilities or post-intervention earnings.
- (f) *Retraining programs for displaced workers are costlier than JSA.* Retraining programs appear to be between two and four times more expensive than JSA. Combined with the previous finding, this implies that JSA may be more cost-effective than retraining in assisting displaced workers get jobs.
- (g) *Costs, when known, vary between \$3,500 and \$25,000 per person.* Evaluations seldom report the full costs of retraining or JSA programs, so it is difficult to determine the absolute cost-effectiveness of these programs.

2. LONG-TERM UNEMPLOYED

Table 2 summarizes the results of studies examining the effectiveness of retraining programs for the long-term unemployed. The table in the annex provides more information in the same format as Table 2. The main findings are:

- (a) *The clientele for retraining programs for the long-term unemployed (LTU) is relatively heterogeneous.* Since the LTU consist of individuals displaced from various sectors, they are likely to be more heterogeneous in terms of skills, age, and education.
- (b) *Generally improving conditions in industry or aggregate employment.* In contrast to retraining programs for workers displaced due to mass layoffs and plant closures, these retraining programs are generally instituted during periods of low or falling aggregate unemployment. The rationale appears to be that these programs, if appropriately designed, can enable the LTU to obtain some of the jobs that are being created.
- (c) *The programs provide a mix of classroom or workshop training, OJT, and JSA.* While

retraining programs for workers displaced en masse are mostly classroom-based, on-the-job training (OJT) is somewhat more important for the LTU.

- (d) ***Both experimental and longitudinal studies exist for the US.*** In the case of the LTU, experimental evaluations have been conducted in the US. Quasi-experimental and non-scientific techniques have also been used for evaluating retraining programs for these workers. Some of these studies were longitudinal, providing an indication of the long-term labor market benefits of the retraining program.
- (e) ***Evaluations indicate disappointing results.*** Again, we do not discuss the results of nonscientific evaluations. Few programs result in gains in either re-employment probabilities or wages. Some evaluations indicate that these programs are more beneficial for women. Where gains in re-employment are observed, longitudinal studies generally indicate dissipation of the effects of retraining within a couple of years after the program. Evaluations also indicate that retraining programs are generally no more effective than JSA in increasing either re-employment probabilities or post-intervention earnings.
- (f) ***Retraining programs for the LTU are costlier than JSA.*** Retraining programs appear to be twice as costly as JSA. Combined with the previous finding, this implies that JSA may be more somewhat more cost-effective than retraining in assisting the long-term unemployed get jobs.
- (g) ***Costs, when known, vary between \$900 and \$12,000 per person.*** Again, as in the case of retraining for those laid off *en masse*, evaluations seldom report the full costs of retraining or JSA programs for the long-term unemployed, so it is difficult to determine the absolute cost-effectiveness of these programs.

Table 1: Overview of Evaluation Studies: Plant Closures & Mass Layoffs

Labor Market Problem	Relevant Indicators	Intervention Design	Evaluate Type	Result	Comments
Ford Plant Closure in San Jose, 2400 workers to lose their jobs (1982).	A 25 percent decline in auto production between 1978 and 1980.	Basic skills training as well as targeted vocational training in marketable skills.	Non-scientific	High success rate in placement.	Training cost about \$ 6000/worker
Shipyards closure in Storstrom, Denmark (1986). 2000 lose jobs.	High unemployment rates in regions, especially among women.	Program in training women entrepreneurs to help them start their own business.	Non-scientific	51 businesses were set up by (mostly part-time). Low additional employment.	Low success rate and quite costly.
Steel/Coal plant closure in Creusot, France (1984). 1230 people lost jobs.	Contracting steel sector, with over 6000 job losses over the previous few months.	Workers promised reemployment in region after retraining; all provided JSA; firms given financial incentives to hire	Non-scientific	High success rate in placement.	Cost-effectiveness and long term employment impact unclear.
Closure of Pulp plant in Kramfors in Northern Sweden (1977).	Unemp. in Sweden rose from 1.6% in to 2.2% during that period.	NA	Quasi-Exper.	Lower wages relative to control group. Earnings drop is significant in the first year. Low long-term gains.	No benefits. Negative returns after factoring in costs.
Mass Layoffs (3000) due to auto plant closures in Michigan (1980-83).	A 25 percent decline in auto production between 1978 and 1980.	Workers provided a mixture of job search assistance and classroom training.	Quasi-Exper.	Training did not improve reemployment rate. Earnings ambiguous.	Training cost twice as much as JSA.
Mass Layoffs due to auto and steel plant closures in Buffalo (1982-83).	High unemployment rates in 1981/82 nationally (9.5%).	Workers provided with a mixture of job search assistance and either classroom or OJT.	Quasi-Exper.	No incremental effect above that of JSA for either classroom training or OJT.	Costs of CT and OJT programs (\$3300) are four times those of JSA (\$850)
Plant closures at 13 steel factories and mines in Canada.	NA	Job search assistance and training provided to these workers.	Quasi-Exper.	Slight increase in reemployment probability.	Positive impact. No cost-benefit analysis.
445 workers laid off due to automobile plant closure in Australia (1984).	High unemp. rates in Australia at 9% 1984. Fell to 8% in 1985.	Classroom training. Main distinction between courses relates to provision of driver training.	Quasi-Exper.	Except driver training, other courses lead to a decline in the probability of employment.	Self-selection problem as control consists of people declining participation.
Around 2000 workers laid off at the Uddevalla shipyard in Sweden in 1985.	Volvo decided to establish an auto plant at Uddevalla at the same time.	Courses offered in welding, engineering and control engineering.	Non-Scientific	By late 1987, over 90% of the trainees had found jobs or become self-employed.	Reason for success - economy and LM was buoyant.
The Volvo plant at Goteborg, Sweden planned to lay off 1000 workers in 1992.	Unemp. rates were rising sharply - from 3.2% in 1991 to 5.9% in 1992.	Training to help the existing workforce to manage the change without job loss.	None		Costs are to run to around \$25 million (\$25000 per person).
Sweden: 1980s and 1990s			NA	Participants have greater difficulty in finding jobs than openly unemployed	Cost-effectiveness of training programs has declined; effectiveness fell and costs increased.

Table 2: Overview of Evaluation Studies: Long-term Unemployed

Labor Market Problem	Relevant Indicators	Intervention Design	Evaluate Type	Results	Comments
Provide better access to jobs for long-term unemployed in Tilburg (since early 1980).	Unemployment rates have begun falling in Holland since the mid 1980's.	Four main skill areas are: metal training, wood training, installation techniques and clothing.	Non-scientific	In 1991, 82 individuals were enrolled in the course. 52 completed and 41 went onto a job or further education.	Training quite expensive as annual funding of the program is about \$7.5m (\$10,000/ trainee).
Tackle high regional unemployment levels in Germany (1979).	In 23 regions in Germany unemployment levels were above 6 percent.	Retraining of these labor force participants in firms.	Non-scientific	Training reduced unemployment somewhat. In 2 yrs 40 percent had left their jobs again.	High cost of training (\$500m for training and other interventions)
Train workers eligible for displaced worker program in Houston (1983-85).	A decline in petrochemical industry. In U.S. unemp. rates declined.	Workers provided with job search assistance and classroom training.	Experimental	No additional earning gain accrued from classroom training as compared to the JSA.	Classroom training twice as costly as JSA (\$2,900 versus \$1,400 respectively).
Train workers eligible for displaced worker program in El Paso (83-85)	In the U.S., unemployment rates declined.	Workers provided with job search assistance and classroom training.	Experimental	After 1 year, no effect on men's and increase in women's earnings.	Earnings exceeded program costs for women not men.
Retrain long term unemployed in New Jersey (1986-87).	Unemployment rates in the U.S. fell.	A mixture of JSA, JSA followed by OJT, JSA followed by CT.	Experimental	Trg. significantly increases earnings and employment over 2.5 years.	Self-selection problem. Costs exceed benefits.
Increase the employability of long term unemployed in Canada (1985-).	Unemp. rates declined from 11.2 percent in the mid 1980s to 7.5 percent in 1989.	Formal and on-the-job training. Wages and direct cost of classroom training are subsidized.	Quasi-Exper.	Employability of women goes up while it declines for males. Female earnings constant, and fall for males.	Program cost = \$9300/person. Training is not cost-effective.
Retrain individuals at risk of becoming unemp. in Germany.		Vocational training.	Non-scientific	54% got jobs. Re-emp. rate lower for older individuals. 30% of men and women unemployed after 2 years.	No data on costs available
Same as above in Germany (1987-88).	Unemployment steady between 1986 and 1988. Fell by 1990.	Same as above.	Quasi-exper.	No impact on the flows out of or into of short- or long-term unemployment.	No information on wages or costs. Labor flow study.
Equip displaced workers with skills to enter a new occupations, U.S., 1986.	Unemp. rates fell from 7.1% in 1985 to 6.1% by 1987.	Develop skills in occupations different from occupations in pre-displacement jobs.	Quasi-Exper.	Little effect on wages and employment.	Cost = \$12000/trainee. Training is not cost-effective.
Help displaced workers gain employment in England (1980's).	High unemployment rates (near 11%) persisted through the 1980s.	Voc. Trg. provided by local authorities. Low private sector involvement.	Non-scientific	Little impact on flows from long-term unemployment.	Cost-effectiveness is likely to be poor.
Help displaced workers gain better employment opportunities.		Vocational training courses.	Quasi-Exper.	Even after two years employment situation for trainees not significantly better.	No data is available on wages and costs.

IV. CONCLUSIONS

In OECD countries, retraining is often an important component of the total package of unemployment benefits for those laid-off due to plant closure or restructuring, as well as programs to assist the long-term unemployed. However, there exist few thorough evaluations of the effectiveness of retraining programs in increasing employability and/or wages, and almost none of their cost-effectiveness which is pertinent for policy makers concerned with financing issues.

Where retraining programs have been evaluated, studies vary in their complexity and sophistication, even apart from the fundamental choices of methods or focus. In the U.S., which has led the push for impact evaluation, research sometimes involves experiments where participants and control groups are randomly assigned in advance. In other OECD countries, randomized experiments are almost non-existent. Participants are at best compared with benchmark groups of persons selected after the program has been in place for a while - these evaluations are called "quasi-experimental" if they use statistical techniques to correct for differences in characteristics. Out of the 22 evaluations reviewed here, 10 were non-scientific, some of the others (experimental and quasi-experimental) were of dubious quality, and none contained a rigorous cost-benefit analysis of the retraining program it evaluated.

The paucity of rigorous evidence on the costs and effectiveness of retraining programs do not allow us to conclude definitively on the economic justification of these interventions. The scattered evidence that we do analyze, however, does not appear to justify expansion of retraining programs to cover more of the unemployed. These conclusions are consistent with the findings in OECD (1993), which are summarized as follows:

"For the broadly targeted sub-group of programs, the overall impression is most troubling. Available evidence does not permit strong conclusions, but it gives remarkably meagre support of a hypothesis that such programs are effective." *OECD Employment Outlook (1993)*, page 58.

We find, however, that alternatives to retraining such as job search assistance are more promising avenues. JSA is cheaper than public retraining programs, and seems to be as effective in facilitating access to jobs. It is worth noting that this result is found in both improving and deteriorating general labor market conditions, and for the recently laid off as well as the long-term unemployed. Again, what we find is consistent with OECD (1993) which states:

"A review of programme-level evaluation studies shows that several major labor market programmes have helped to improve job opportunities and future earnings for participants. Many successful programmes share the characteristic of being targeted on specific client categories, or are designed to address specific labor market problems. This applies in particular to training programmes. Less favourable results have been reported for certain broadly targeted programs, such as training programs offered to all the unemployed. Some of the most consistently positive results have been reported for intensified placement and counselling efforts aimed at encouraging effective job search by the unemployed. Such measures have proved to be very cost-effective, especially when targeted on particular groups, such as workers affected by plant closures or the long-term unemployed." *OECD Employment Outlook, 1993*, page x.

What lessons can transition and other restructuring economies draw from this summary of OECD experience? The evidence is rather sketchy, so firm conclusions are difficult. Nevertheless, the following conclusions reflect a reasonable interpretation of the findings:

First, it is useful to evaluate retraining (and other) public interventions using sound techniques. It is instructive that while the non-scientific evaluations of retraining programs present a rosy picture based on placement rates and other informal evidence, scientific evaluations are quite discouraging. Relying on non-scientific evaluations may lead countries to incorrect policy conclusions.

Second, rigorous evaluations, while not necessarily allowing a complete social cost-benefit analysis, can be useful guides for policymakers in solving public expenditure issues related to labor programs. Reviews of rigorous evaluations like this study find, for example, that job search assistance measures - which cost less than retraining but appear equally effective - may be a relatively cost-effective device in assisting displaced workers. The absence of such evaluations may result in inefficient allocation of government funds.

Third, OECD experience of retraining programs for workers displaced *en masse* may be useful in designing assistance programs in countries with an impending labor shedding from large enterprises in the manufacturing and mining sectors, such as the economies of the former Soviet Union: principally, this involves recognizing that retraining should not be the main form of assistance. The absence of experimental evaluations of retraining programs for such workers in OECD countries also has implications for evaluation design in other countries facing similar problems, since it points to quasi-experimental evaluations as being more feasible.

Finally, East and Central European economies which are beginning to experience long-term unemployment can learn from OECD experience with retraining programs for the long-term unemployed, which indicates that retraining programs are more beneficial for some groups than for others within this relatively heterogeneous group of job-seekers. However, it is difficult to predict *a priori* who will benefit most from retraining: principally, these results call for using modest pilot programs, evaluating them rigorously, and then tightly targeting retraining to those for whom it is found most cost-effective.

V. REFERENCES

- Addison, J. T. and W. S. Siebert**, 1994. "Vocational Training and the European Community", Oxford Economic Papers (Vol. 46, No. 4).
- Addison, J.T. and M. Blackburn**, 1994. "Policy Watch: The Worker Adjustment and Retraining Notification Act", The Journal of Economics Perspectives (Vol. 8 No. 1).
- Alfthan, T. and B. Janzon**, 1994. "Retraining Adult Workers in Sweden", Training Policy Study No. 3, ILO.
- Bjorklund, A., R. Haveman, R. Hollister and B. Holmlund**, 1991. "Labor Market Policy and Unemployment Insurance", Clarendon Press, Oxford.
- Bosch, G.**, 1992. "Retraining - not Redundancy", International Institute for Labor Studies, Geneva.
- Boesel, D. and L. McFarland**, 1994. "National Assessment of Vocational Education: Summary and Recommendations (Vol. 1)", Office of Education Research and Improvement, U.S. department of Education.
- Chalmers, N.**, 1994. "Retraining under Conditions of Restructuring: Japan", Training Policy Study No. 6, ILO.
- Clements, N., J. Heckman and J. Smith**, 1994. "Making the Most Out of Social Experiments: Reducing the Intrinsic Uncertainty in Evidence From Randomized Trials With an Application to the National JTPA Experiment", NBER Technical Working Paper, No. 149.
- Corson, W., P. Decker, P. Gleason and W. Nicholson**, 1993. "International Trade and Worker Dislocation: Evaluation of the Trade Adjustment Assistance Program", Mathematica Policy Research, Inc..
- Couch, K.**, 1992. "New Evidence on the Long-Term Effects of Employment Training Programs", Journal of Labor Economics (Vol. 10, No. 4).
- Creticos, P. and R. Sheets**, 1992. "Evaluating State-Financed, Workplace Based Retraining Programs: Case Studies of Retraining Projects", National Commission for Employment Policy.
- Doolittle, F. et al.**, 1993. "A Summary of the Design and Implementation of the National JTPA Study", Manpower Demonstration research Corporation.
- Fong, P. and L. Kiat**, 1994. "Industrial Restructuring and Retraining in Singapore", Training Policy Study No. 2, ILO.
- Heckman, J.**, 1992. "Randomization and Social Policy Evaluation", in C. Manski and I. Garfinkel, eds., "Evaluating Welfare and Training Programs", Harvard University Press.

- Heckman, J., Roselius, R., and J. Smith**, 1994. "U.S. Education and Training Policy: A Reevaluation of the Underlying Assumptions Behind the "New Consensus", Draft.
- Heckman, J., Smith, J. and C. Taber**, 1994. "Accounting for Dropouts in Evaluations of Social Experiments", Draft.
- Heckman, J. and R. Roselius**, 1994. "Evaluating the Impact of Training on the Earnings and Labor Force Status of Young Women: Better Data Help A Lot", Draft.
- ILO**, 1992. "Training in the Iron and Steel Industry", Iron and Steel Committee, Twelfth Session.
- ILO**, 1992. "Skill Requirements, Training and Retraining in the Building, Civil Engineering and Public Works Industries", Building, Civil Engineering and Public Works Committee, Twelfth Session.
- ILO**, 1994. "Consequences of Structural Adjustment for Employment, Training, Further Training and Retraining in the Metal Trades", Metal Trades Committee, Thirteenth Session.
- Johanson, R.**, 1994. "Retraining Adults in Germany", Training Policy Study No. 4, ILO.
- Johanson, R.**, 1994. "Ireland: Adult Training and Retraining". Training Policy Study No. 5, ILO.
- Johanson, R.**, 1995. "Retraining Workers Displaced by Structural Adjustment", Draft for World Labor Report.
- LaLonde, R.J.**, 1986. "Evaluating the Econometric Evaluations of Training Programs with Experimental Data", American Economic Review (Vol. 76, No. 4).
- Leigh, D.**, 1992. "Retraining Displaced Workers: What can Developing Nations Learn From OECD Nations?", WPS 946, The World Bank.
- Leigh, D.**, 1994. "Retraining Displaced Workers: The U.S. Experience", Training Policy Study No. 1, ILO.
- Middleton, J., A. Zideman and A.V. Adams**, 1991. "Vocational and Technical Education and Training", World Bank.
- Nord, S. and Ting, Y.**, 1991. "The Impact of Advance Notice of Plant Closings on Earnings and the Probability of Unemployment", Industrial and Labor Relations Review (Vol. 44, No. 4).
- OECD**, 1991. "Evaluating Labor Market and Social Programs: The State of a Complex Art".
- OECD**, 1993. "Partnerships: The Key to Job Creation. Experiences from OECD Countries".
- OECD**, 1993. "Industry Training in Australia, Sweden and the United States.
- OECD, 1993.** *Employment Outlook*. Chapter 2.

- OECD, 1994. "Vocational Training in the Netherlands: Reform and Innovation".
- OECD, 1994. "Vocational Training in Germany: Modernization and Responsiveness".
- OECD, 1994. *The OECD Jobs Study: Evidence and Explanations*. Paris.
- Oliveira, J. and Lau, A., 1992. "Retraining the European Workforce: How Technologies Can Help", Training Discussion Paper No. 95, Training Policy Branch, ILO.
- Orr, L. et al., 1994. "The National JTPA Study: Impacts, Benefits, and Costs of Title II-A", Abt Associates, Maryland.
- Penn, R., M. Rose and J. Rubery (eds.), 1994. "Skill and Occupational Change", Oxford University Press.
- Rainbird, H., 1992. "The Effectiveness of Training Boards: A Case Study of the United Kingdom", Training Discussion Paper No. 99, Training Policy Branch, ILO.
- Ruhm, C., 1994. "Advance Notice, Job Search and Postdisplacement Earnings", Journal of Labor Economics (Vol. 12, No. 1).
- Rutkowski, M., 1995. "Workers in Transition Economies", Background Paper, World Development Report 1995.
- Steinberg, D. and F. Monforte, 1987. "Estimating the Effects of Job Search assistance and Training Programs on the Unemployment Durations of Displaced Workers" in K. Lang and J. Leonard (eds.) "Unemployment and the Structure of Labor Markets", Basil Blackwell.
- World Bank, 1995. World Development Report: *Workers in an Integrating World*.
- Vocational Training: *European Journal*, 1994. "Training and the Labor Market", Vol. 2.
- Zweimuller, J. and R. Winter-Ebmer, 1991. "Manpower Training Programs and Employment Stability", Working Paper, No. 9105, Johannes Kepler University Linz.

Annex: Overview of Evaluation Studies

Labor Market Problem	Relevant Indicators	Intervention Design	Type of Evaluation	Result	Comments
<p><i>Displaced Workers</i></p> <p>Ford Plant Closure in San Jose, U.S. (1982). 2400 workers to lose their jobs.</p> <p>Shipyard closure in Storstrom county, Denmark (1986). 2000 people lose jobs. General economic decline.</p> <p>Steel and Coal plant closure in Creusot-Loire, France (1984). 1230 people lost jobs almost immediately.</p>	<p>A 25 percent decline in auto production between 1978 and 1980. Unemployment rates in the U.S. rose from 7.5 percent in 1981 to 9.5 percent in 1982 and 1983. Simultaneously manufacturing employment declined by 5 percent during the time period.</p> <p>High unemployment rates in regions, especially among women. National unemployment rates for men in 1986 and 1987 were 6.1 and 6.4 percent respectively while the corresponding numbers for women were 10.0 and 9.6 percent. Employment in manufacturing remained stagnant since the mid 1980s.</p> <p>Contracting steel sector, with over 6000 job losses over the previous few months. In France unemployment rates rose from 8.1 percent in 1982 to 10.2 percent by 1985. In mining industry employment has fallen steadily throughout the 1980s - by close to 40 percent between 1980 and 1990. Manufacturing employment fell by about 3 percent between 1983 and 1984 and a further 3 percent in the next year.</p>	<p>Basic skills training as well as targeted vocational training in marketable skills.</p> <p>Program in training women entrepreneurs (1986-89) to help them start their own business. A total of 200 hours of introductory and specific business oriented training were provided.</p> <p>Workers to receive 70 percent of their former salaries for 10 months during which they participate in retraining and job-search activities after which they were promised reemployment in different firms in region. Training provided in engineering courses, plastic molding, refrigeration etc.. Also short courses on work skills, production methods in small firms, job search and career counselling. Financial incentives were provided to firms to hire these workers.</p>	<p>Non-scientific</p> <p>Non-scientific</p> <p>Non-scientific</p>	<p>High success rate in placement.</p> <p>51 businesses were set up by 1989. Less than a third of participants opened up a full-time business and few hired any employees, thus generating low additional employment.</p> <p>High success rate in placement.</p>	<p>No scientific evaluation done. Causes for perceived success were - adequate resource base (\$6000 grant/worker); high degree of coordination and assistance provided by Ford, UAW and government.</p> <p>No scientific evaluation done. This program does not seem to have met with much success and may have been quite costly (no cost information available).</p> <p>No scientific evaluation done on cost-effectiveness and long term employment impact of retraining.</p>

<p>Closure of Pulp plant in Kramfors in Northern Sweden (1977).</p>	<p>Unemployment rates in Sweden rose from 1.6 percent in 1976 to 2.2 percent by 1978. Employment in manufacturing declined by 4 percent in 1977 and a further 3 percent the following year.</p>		<p>Comparison of retrained workers with employed and unemployed workers.</p>	<p>Participation in training gives lower weekly wages than those not receiving training upon being employed. Drop in earnings are especially significant in the first year with no appreciable long-term gains.</p>	<p>No information provided on reemployment rates or costs. Benefits from retraining program were insignificant. After factoring in costs, training may yield negative returns.</p>
<p>Mass Layoffs (around 3000) due to auto and auto parts plant closures in Michigan (1980-83). The general profile of those laid off was experienced blue collar male workers who earned high wages.</p>	<p>A 25 percent decline in auto production between 1978 and 1980. High unemployment rates in 1981/82 nationally (9.5 percent). They had fallen to 7.5 percent by 1984. Manufacturing employment rose by 5 percent between 1983 and 1984.</p>	<p>Downriver Project. Workers provided a mixture of job search assistance and classroom training. Services were provided promptly after plant closures. Retraining was provided in occupations in which there was perceived to be growing demand. Training curricula provided instructions in blue collar trades.</p>	<p>Quasi-experimental</p>	<p>Classroom training (CT) did not significantly improve program participants post-program reemployment rate.</p>	<p>Earnings estimates vary (ranging from negative to significantly positive). Training does not seem to have been very effective, especially in light of fact that training cost twice as much as JSA.</p>
<p>Mass Layoffs due to auto and steel plant closures in Buffalo (1982-83). The general profile of those laid off was experienced blue collar male workers who earned high wages.</p>	<p>High unemployment rates in 1981/82 nationally (9.5 percent). They had fallen to 7.5 percent by 1984. Manufacturing employment rose by 5 percent between 1983 and 1984.</p>	<p>Buffalo Project. Displaced workers were provided with a mixture of job search assistance and either classroom or on the job training. Program services were provided after a fairly lengthy period of post-layoff unemployment.</p>	<p>Quasi-experimental</p>	<p>JSA only services are found to have a fairly large impact on earnings measured over the first six post-program months. However there is no evidence that there is any incremental effect above that of JSA for either classroom training or OJT.</p>	<p>Classroom training and OJT are ineffective. Cost of CT and OJT programs are around four times as much as JSA, implying that JSA is potentially the only cost effective program. No evidence is provided about employability of program participants.</p>
<p>Plant closures at 13 steel factories and mines in Canada</p>		<p>Job search assistance and training provided to these workers.</p>	<p>Quasi-Experimental</p>	<p>Likelihood of worker at supported sites having a job was seven percent higher than comparably displaced workers not in the program. This impact was attributed to training which was used by 28 percent of workers. However at two mining sites, the program had no impact.</p>	<p>Training seems to have a greater impact than the job counselling offer, but no information on costs. Job counselling has little impact in Canada as targeted job counselling is provided by Canada's Public Employment Service as a standard service to all unemployed.</p>

445 workers laid off due to automobile plant closure in Australia (1984).	Unemployment rates rose steadily in Australia reaching a high of 9 percent in 1984 before falling to 8 percent for the next few years. Between 1980 and 1984 employment in manufacturing shrunk by 4 percent.	Labor Adjustment Training Arrangement. Provision of classroom training (average length 19 weeks) to meet retraining needs of workers. Main distinction between courses was whether they provided driver training or not.	Quasi-experimental	Over a nine month period, driver training increases the probability of reemployment. However, other training courses resulted in a decline in reemployment probabilities.	No indication of cost-effectiveness of different type of training courses. Self-selection problem as individuals who chose not to participate are in the control group. Impact of longer training courses is biased downwards (as there is less time to look for job).
Around 2000 workers laid off at the Uddevalla shipyard in Sweden in 1985.	Local economy was given a boost by decision of Volvo to establish a car manufacturing plant at Uddevalla. Unemployment rates were declining in this period while manufacturing employment was fairly steady.	A significant number of workers joined retraining programs several months prior to being laid-off. Courses of varying duration were offered in welding, engineering and control engineering. These retraining programs were provided by the state owned training board, municipal education institutions and other adult education institutions.	Non Scientific	By November 1987, over 90 percent of the workers who had completed training had found jobs or become self-employed - most of them in occupations they had trained for.	No scientific evaluation of retraining. Two major factors accounted for the success of the training program - economy and labor market conditions were buoyant in the region throughout the phase out period; shipyard management, employment offices and training agencies worked in close cooperation.
The Volvo plant at Goteborg, Sweden planned to lay off 1000 workers in 1992 associated with the phasing out of an older car model with a new model.	Volvo planned to recruit 800 workers to prepare for the production of the new line of cars. Unemployment rates were rising sharply - from 3.2 percent in 1991 to 5.9 percent in 1992. Manufacturing employment dropped by 9 percent in 1992. Total employment also fell by four percent.	Retraining program was proposed which would help the existing workforce to manage the change without job loss. The company accepted the proposal under the stipulation that the cost be shared by the government. The program is a broad competency raising program which includes specific training to prepare the participants for the production of the new automobiles.	None	-	Program costs are expected to be about \$25 million (\$25000 per person retrained). The government contribution is about \$8 million. In judging the cost-effectiveness of this program, it should be compared with the expected unemployment benefits of \$6.5 million that the government would have to pay.
Sweden: 1980s and 1990s: general evaluation of public retraining programs	Unemployment rising steadily over the period of study	Various types	NA	Retraining programs have become more ineffective over time - especially since the economy has begun deteriorating. Participants have greater difficulty in finding jobs than the openly unemployed.	Cost-effectiveness of training programs has declined because effectiveness has fallen and costs have increased.

<p><i>Long-Term Unemployed</i></p> <p>Improve skills and thus provide better access to jobs for long-term unemployed in Tilburg, Netherlands (Since early 1980's).</p>	<p>Unemployment rates have begun falling in Holland since the mid 1980's and were around 7 percent in 1992.</p>	<p>Training provides hands on experience through a simulated workshop. Emphasis is placed on technical skill development as well as well as instilling good work habits. Four main skill areas are: metal training, wood training, installation techniques and clothing. Courses run from 4-10 months.</p>	<p>Non-scientific</p>	<p>In 1991, 82 individuals were enrolled in the course. 52 completed and 41 went onto a job or further education. Metal works program is the most successful in placing students.</p>	<p>No scientific evaluation done. Training quite expensive as annual funding of the program is about \$7500000 (\$10000 per trainee).</p>
<p>Tackle high regional unemployment levels in Germany (1979).</p>	<p>In 23 of the 142 regions in Germany unemployment levels were above 6 percent. Some firms in this region were also facing serious problems in adjusting to economic changes.</p>	<p>Among other interventions, training and retraining of these labor force participants in firms. The firms who employed these workers received a wage subsidy of 90 percent of wages for 24 months.</p>	<p>Non-experimental</p>	<p>Training reduced unemployment somewhat (this result is significant at the 10 percent level). However it is estimated that by 1981, over 40 percent of these hard-to place individuals had already left their jobs.</p>	<p>In light of the extremely high cost of training (around \$500 million for training and other interventions), results are very disappointing. No data on wages.</p>
<p>Train workers eligible for JPTA Title III program (displaced worker) in Houston, Texas (1983-85). Individuals eligible were UI recipients (or exhaustees) who had a low probability of returning to their previous occupation or industry.</p>	<p>A decline in petrochemical industry led to layoff of workers. In the U.S., unemployment rates declined from 9.5 percent in 1983 to 7.4 percent in 1985 (and maintained this trend till the late 1980s). Employment in this industry increased slightly between 1983 and 1985.</p>	<p>Texas WAD project. Displaced workers provided with Job search assistance or a mixture of job search assistance with classroom training</p>	<p>Experimental</p>	<p>By end of first year after participation, no additional earning gain accrued from classroom training as compared to the JSA only.</p>	<p>Despite high costs of classroom training (twice as much as JSA) no additional gains accrued from this type of training.</p>
<p>Train workers eligible for PIA Title III program (displaced worker) in El Paso, Texas (1983-85). (Criteria same as above). Workers laid off from light manufacturing plants.</p>	<p>In the U.S., unemployment rates declined from 9.5 percent in 1983 to 7.4 percent in 1985 (and maintained this trend till the late 1980s). Employment in manufacturing fell by close to 2 percent between 1982 and 1983 but rose by about 5 percent till 1985.</p>	<p>Texas WAD project. Displaced workers provided with Job search assistance or a mixture of job search assistance with classroom training.</p>	<p>Experimental</p>	<p>By end of first year after participation, while this program had no effect on male earnings it had a permanent effect on increasing earnings for women.</p>	<p>Increase in earnings for women exceeded program costs slightly. However no beneficial effects for males.</p>

<p>Job search assistance and training provided for the long term unemployed in New Jersey (1986-87). In general, the unemployed were laid off from manufacturing, trade and services</p>	<p>Unemployment rates in the U.S. fell from 7.1 percent in 1985 to 6.1 percent by 1987. While employment in manufacturing remained fairly steady between 1985 and 1988, trade employment increased by 7 percent and that in services by about 5 percent over this time period.</p>	<p>New Jersey UI Reemployment Demonstration project. Displaced workers provided with a mixture of JSA, JSA followed by on-the-job training (OJT), JSA followed by classroom training (CT) or JSA followed by reemployment bonus.</p>	<p>Experimental</p>	<p>Focussing only on those who undertook training, over 10 quarters after the program, both CT and OJT significantly increase earnings relative to JSA recipients only. These individuals are also employed for greater amounts of time/quarter as compared to the JSA-only group.</p>	<p>While results of training are positive the following caveats apply - claimants receiving training are self-selected (these results may not apply for a random group of claimants); only 15 percent of those offered training accepted it; training seems to mainly benefit those who already possessed marketable skills. Finally, both in the short and long run, cost-benefit analysis shows that costs exceed benefits.</p>
<p>Increase the employability and earnings of the long term unemployed in Canada by providing them with training (1985-).</p>	<p>As compared to the U.S. unemployment rates have been fairly high in Canada. However they declined from 11.2 percent in the mid 1980s to 7.5 percent in 1989. Spurred by a growth of commerce and services over employment grew by about 3 percent annually over the time period.</p>	<p>Job Development Program. Provision of formal and on-the-job training to unemployed. Wages and direct cost of classroom training are subsidized. The wage subsidy helps employers cover the cost of on the job training.</p>	<p>Quasi-experimental</p>	<p>Employability of women goes up significantly while that of males does not (in fact it declines). Weekly earnings for females is insignificant relative to control group while it is negative for males.</p>	<p>In view of high program cost (around \$9300/participant) training is not cost effective, especially for men.</p>
<p>Retrain individuals who are either at the risk of becoming unemployed or those who are unemployed in Germany.</p>		<p>Training individuals to be certifiable in one of the 375 apprenticeable trades. This takes upto two years. Contents and specification of retraining correspond to those of initial vocational training.</p>	<p>Non-scientific</p>	<p>Results measured in terms of retention rates (those who complete the course); pass rate (those who pass exam); and employment rate (those who find jobs in occupations for which they are retrained). These rates are 70%, 85% and 90% respectively. Thus the overall success rate is 54 percent. Employment rate varied by age - for those over 45 unemployed over a year it was below 50 percent while for those 25-35 it was 86 percent.</p>	<p>No scientific analysis. No data on cost available. Dropout from employment was fairly high - two years after completing training only 60 percent of men and 66 percent of women were still employed.</p>

Same as above in Germany (1987-88).	Unemployment rates were steady in Germany between 1986 and 1988. They fell somewhat by 1990. Employment grew at slightly over 1 percent during this period.	Same as above. This is an evaluation of four programs, two of which are training (one offering further training for employed and unemployed individuals while the other offered retraining for the unemployed).	Econometric study of labor flows	No type of training has any significant impact on the flows out of short-term or long-term unemployment nor on the flows into unemployment.	No information on wages or costs of training is available. Bellmann and Lehmann (1990).
Retrain displaced workers in the U.S. to equip them with skills to enter a new occupation or industry (1988). Most workers have been laid off due to a plant closing.	Unemployment rates in the U.S. fell from 7.1 percent in 1985 to 6.1 percent by 1987. While employment in manufacturing remained fairly steady between 1985 and 1988, trade employment increased by 7 percent and that in services by about 5 percent over this time period.	Trade Adjustment Assistance Program. Training program intended to develop skills in occupations different from occupations in pre-displacement jobs. Most of these skills were supplied by a vocational college or local community college in courses that were over a year long.	Quasi-experimental	Individuals who received training begin earning significantly more (as compared to those who received extended income-maintenance benefits) by the 6th quarter and this difference continues to increase till the 12th (last) quarter reaching a level of \$500.	Longer-term investments in training may be effective in increasing earnings. However the training is costly (each trainee was given a \$12000 training voucher). This analysis has only been done for the manufacturing industry.
Help long term unenmployed and displaced workers gain employment in England (1980's).	High unemployment rates (around 10-11 percent) persisted through much of the 1980s. Between 1983 and 1990 employment has risen by around 1.5 percent.	Community Program. Targeted vocational training to be provided by local authorities in conjunction with local colleges, central government and voluntary organizations. Low private sector involvement.	-	Little impact on flows from long-term unemployment. (Similar programs in germany have also been largely unsuccessful).	Cost-effectiveness of these programs is likely to be negative.
Help adult unemployed and displaced workers gain better employment opportunities through access to training in Holland.		Centers for Adult Vocational Training.	Quasi-Experimental	Unemployed persons who did not undergo training found jobs as quickly as those who did - if training duration was counted as search time. However, even two years down the line the employment situation for the two groups was not significantly different.	While no data is available on wages and costs, these programs are not likely to be cost-effective. (OECD, 1993).

