

7

MODULE

Monitoring and Evaluation of Labor Programs

This module provides guidance on why and how to evaluate the costs and benefits of labor restructuring programs and how to set up effective monitoring systems to track progress and learn from experience.

OVERVIEW

The specific objectives for monitoring and evaluation of labor programs are to:

- **Assess financial and economic returns.** Labor programs involve spending considerable resources in the short run to reap some gain in the longer term. Consequently the decision to undertake a labor restructuring program should consider the financial and economic returns involved, much the same as would an investment decision.
- **Learn from past experiences.** Monitoring and evaluating a program's effectiveness can help assess what works and what doesn't, and the lessons from past experiences can inform future labor programs.
- **Reduce costs to government.** Most labor programs can be very costly. Cost-benefit analyses help avoid the experience in one country where a policy of generous levels of severance pay (the highest in the region) had

been set, but where the key decisionmaker later admitted, "We didn't actually work out how much it was going to cost us. We just made our decision after looking at other [voluntary departure] schemes elsewhere, but felt we should increase it somewhat."

- **Help make the case for work force restructuring.** There will always be opponents of work force restructuring. Cost-benefit analyses can help provide key information for communication and negotiation (see module 6).
- **Assess financial sustainability and identify required financial resources.** Cost-benefit analyses can help provide insight into the financial sustainability of the overall program by taking into account the overall costs of the redundancy program and estimating the impact of possible future additional redundancies. These costs should take into account all associated costs: compensation, redeployment, and the costs for the

The capability to undertake effective monitoring, analysis, and evaluation will enhance the credibility and reputation of the implementing agency.

Complement financial analysis with stakeholder analysis, and present the results in ways that reveal social costs and benefits.

pension system where there are early retirement programs.

Early analysis can be critical in helping governments assess severance options and the size and scope of the resource envelope for which funding is required. Consider the following example: An economic reform–implementing agency had embarked with some success on a pilot program of privatization. In most cases work force restructuring took place prior to privatization (and in some cases, closure). The agency developed a five-year plan for accelerated privatization that would include major infrastructure enterprises. Empirical estimates of likely levels of downsizing were made, based on experience in the pilot state-owned enterprises (SOEs) and from similar enterprises elsewhere in the region. Those estimates revealed that unexpectedly high levels of expenditure on voluntary departure might be required in 2005 and 2006 (about US\$200 million annually) when restructuring of large mining and infrastructure enterprises was planned. This analysis helped to inform planning by government (the ministry of finance, in particular) on (a) the sequencing of privatization and (b) discussions with donors on a new lending facility in support of privatization and state enterprise reform.

The audience for analyses will extend beyond the implementing agency. Although analysis is an essential input for decisionmaking on labor programs, work force restructuring is both a technical issue and a political issue. The logic and rigor of technical analysis may not always be the decisive factor, and the quality of presentation is important too. In practical terms this means that:

- The findings are presented in a way that will be accessible to policymakers and to a wider audience (for example, an overly academic presentation may not communicate conclusions effectively).
- The presentation of financial and economic analysis will reveal political costs and benefits. Simple examples are:
 - Comparing the number of workers who may lose their jobs with the number of

beneficiaries of private participation in infrastructure (PPI) and infrastructure sector reforms (for example, projected number of households expected to receive new water or power connections).

- Presenting estimates of likely employment outcomes for the sector as a whole, not just the state enterprise. For example, in telecommunications immediate short-term job reductions in the state enterprise may be quickly made up by new jobs in new entrants in mobile and data communications.
- Expressing the financial cost savings to government from work force restructuring in terms of the alternative social benefits that could be provided from those savings (that is, number of new rural schools or health clinics built a year, annual maintenance of rural roads, annual salaries of school teachers).
- Financial and economic analysis of the labor program needs to be complemented by stakeholder analysis (which includes political concerns), as discussed in module 6, and cost-benefit analysis of the wider case for PPI, in situations where opponents of labor adjustment are likely to challenge PPI itself (see the negotiations section in module 6).

The usefulness of analysis is constrained by two further factors: time and the availability of the data. Governments often must make their decisions based on limited and incomplete information—they rarely have the luxury of the time needed to conduct a full analysis and to receive robust conclusions. Even when analysis is done, the quality of available data may restrict the usefulness of analysis.

ASSESSING FINANCIAL RETURNS

Governments, like the private sector, need to assess the financial costs and benefits of a work force restructuring program. Unlike the private sector, however, governments also need to assess a pro-

gram's economic costs and benefits to society, or the economy, as a whole. The key questions and potential tools of analysis are summarized in table 7.1.

As outlined in module 1, the immediate triggers for work force restructuring are often financial crisis, not economic crisis. In such cases the financial analysis can be a more critical question for government than is economic analysis.

Financial Costs—A Checklist

Table 7.2 provides a checklist of potential financial costs that may be incurred and that must be included when assessing financial returns. Essentially, the following equation captures the situation:

$$\text{Financial costs} = \text{SC} + \text{RC} + \text{FC} + \text{CC} + \text{JC} + \text{TC} + \text{UC}$$

where SC is the present value of severance costs, RC is the current net value of retirement costs, FC is the existing value of transportation for worker

and family, CC is the cost of counseling, JC is the cost of job-search assistance, TC is the cost of training, and UC is the present estimated value of unemployment benefit and other social payments,

When collating those costs the implementing agency will need to ensure that:

- All costs are viewed from the perspective of *government as a whole*. For example, costs should include any incremental cost to government of additional unemployment benefits or pensions for displaced workers.
- Costs are all brought to *present values*. In a major restructuring, downsizing is likely to be a phased activity, so planned downsizing two or three years hence should be appropriately discounted. In addition, the estimated costs to the pension plan of any early retirement benefits paid in future may need to be measured in terms of present value.

Work force restructuring often uses batches of workers over time. The costs (and benefits) of future batches need to be discounted to a common present value.

Table 7.1: Financial Analysis—Key Questions and Tools

Question	Tool
How much will the program cost?	<ul style="list-style-type: none"> • Initial estimates of total program cost, based on rough assumptions of severance costs (see the quick calculator on the accompanying CD-ROM)
What are the financial benefits? (How much money will government save?)	<ul style="list-style-type: none"> • Net present value of net cash flows to and from government, taking account of savings in: <ul style="list-style-type: none"> – Salary and related costs and allowances – Retirement benefits – Other nonsalary benefits
How can the program be funded?	<ul style="list-style-type: none"> • Financial gap between cost estimates and potential funding sources (consider budget sources, privatization revenues, commercial loans, donor funds, and so forth)
How long will the program take to pay for itself?	<ul style="list-style-type: none"> • Payback analysis—how long before the costs of a labor program are recovered through savings in reduced wages and other labor-related costs?
What is the financial impact of different approaches to selection and work force restructuring?	<ul style="list-style-type: none"> • Payback and net present value analyses for different groups of employees (grade, age group, operating units) • Analysis of alternative severance formulas
Looking at the economy as a whole, do the economic benefits of work force restructuring exceed its costs?	<ul style="list-style-type: none"> • Substitution of financial costs and benefits with economic costs and benefits in analyses

Financial benefits should also be considered in the context of government as a whole, not just of the infrastructure enterprise.

Table 7.2: Checklist—Financial Costs of a Labor Program

Item	Comments and examples
<p>Direct costs of separation Present value of severance costs (SC)</p> <p>Net present value of retirement costs (RC)</p> <p>Present value of transportation for worker and family (FC)</p> <p>Redeployment costs Counseling (CC)</p> <p>Job-search assistance (JC)</p> <p>Training (TC)</p> <p>Other costs Present value of estimated additional unemployment benefit and other social payments (UC)</p>	<ul style="list-style-type: none"> • Includes all the costs described in module 5: ex gratia, statutory payments, gratuity, bonuses, allowances per enterprise rules, payments negotiated in individual or collective labor contracts. • Estimated present value of future obligations to provide retirement benefits (using realistic estimates of life expectancy, investment returns, and so forth) • Costs should include possible arrears in pension contribution and any additional investments needed to ensure the financial sustainability of the pension scheme. • Costs vary according to the enterprise (central or dispersed), country (size, transportation costs), nature of the work force (locally hired or nationally hired). • Counseling costs based on expected take-up rates. • Assume that almost all workers will receive counseling. • Little data on actual uptake in severance programs—perhaps 60–75 percent • Only a percentage of the work force is likely to undertake training—perhaps 10–30 percent, according to experience. • Costs of social insurance to workers: Estimate additional social insurance payments according to rules. Estimated periods of unemployment can be derived from social security records, public employment service records and interviews, private sector placement agencies, and surveys of workers displaced previously.

Financial Benefits—A Checklist

Table 7.3 summarizes sources of benefits from a labor program, as portrayed by the following equation:

$$\text{Financial benefits} = W + R + B + O + P$$

where W is the present value of wage savings, R is the current net value of retirement benefits saved, B is the present value of savings in kind (nonwage allowances and other benefits), O is the current value of reduced operating costs, and P is the esti-

mated increase in PPI transaction proceeds resulting from the labor force adjustment.

As with costs, benefits should be assessed *in the context of overall government spending*. If an enterprise gains cost savings as a result of the transfer of staff to another enterprise or elsewhere in government, then overall there is no cost saving to government (as in the example of the transfer of Aqaba rail employees to the Jordan Phosphate Mines Company, described in module 4, box 4.6). The pension analysis similarly needs to consider

Table 7.3: Checklist—Financial Benefits of a Labor Program

Item	Comments and examples
<p>Direct benefits of separation Present value of wage savings (W)</p> <p>Net present value of savings in retirement benefits (R)</p> <p>Present value of savings on benefits in kind—both variable and semivariable (B)</p> <p>Other benefits Present value of reduced operating costs (O)</p> <p>Estimated increase in PPI transaction proceeds as a result of work force restructuring (P)</p>	<ul style="list-style-type: none"> • This is usually the largest single source of savings: Includes wages of separated staff plus additional costs, allowances per enterprise rules, payments negotiated in individual or collective labor contracts. • Eliminating ghost workers may be an important and immediate source of financial savings in some enterprises. • Some pension costs must be paid even without restructuring, so the difference between what would be paid with and without the labor program should be estimated. • Benefits also arise from the elimination of ghost pensioners. <p>These benefits can include but are not limited to:</p> <ul style="list-style-type: none"> • Transportation to work, subsidized food (canteens), and heating fuel costs • Reduced medical costs • Child support and childcare (kindergartens) • Free or subsidized housing or reduced housing maintenance costs. <ul style="list-style-type: none"> • Reduced costs, such as transportation and vehicle costs, reduced administration costs (fewer support staff), reduced pilferage. • In some cases disposing of employee housing (perhaps cheap sales to workers), surplus offices, depots, and vehicles will reduce running costs. • Increase resulting from downsizing per se. • Increase (or decrease) resulting from more (less) flexible labor contracts. • Increase resulting from faster PPI transaction. • These may be difficult to estimate but are potentially significant. López-de-Silanes (2002) found that a 20 percent reduction in the work force before privatization led to a 24 percent increase in net privatization price (see box 7.5).

the whole government context. If pension costs are merely transferred from the enterprise to another publicly guaranteed scheme, then there may be no cost saving for government.

Most benefits are self-evident, but *pensions can be complex*. In a defined-benefit plan with a high ratio of pensioners (receiving pensions from the plan) to employees (contributing to the plan), a

large number of departures could tip the plan into financial insolvency. Complexity can also arise if different workers within enterprises have different pension programs. To illustrate, if some workers are public servants and others are enterprise workers subject to a general labor code, net savings to government might be higher for retrenchment of the public servants because they have more generous pension benefits.

The simplest cost-benefit analysis that the implementing agency can make is an undiscounted financial payback.

Financial Payback Analysis

Where the costs of work force restructuring are wholly front-loaded, the simplest method of analysis that could be considered is undiscounted payback (or breakeven) analysis. In the example presented below, an initial expenditure of \$100,000 in severance payments is “paid back” by the end of year 4 as a result of annual savings (wages and other staff costs) of \$25,000. The simple payback (or breakeven) period is calculated as the number of years it takes for the wage bill savings to equal the financial costs—in this case 4 years.

Year	Work force restructuring costs (\$)	Cash savings (\$)	Net cash flow (\$)
0	100,000		-100,000
1		25,000	-75,000
2		25,000	-50,000
3		25,000	-25,000
4		25,000	0
5		25,000	25,000
6		25,000	50,000

The introduction of discounting in the above example gives a more accurate picture of the payback period. By taking into account the lesser value of money tomorrow instead of today and assuming an annual discount rate of, say, 10 percent, the initial expenditure of \$100,000 is paid back not at the end of year 4 but during the course of year 5.

Year	Work force restructuring costs (\$)	Cash savings (\$)	Present value factor	Discounted values at 10% (\$)	Net cash flow (\$)
0	100,000		1.000	100,000	-100,000
1		25,000	0.909	22,725	-77,275
2		25,000	0.826	20,650	-56,625
3		25,000	0.751	18,775	-37,850
4		25,000	0.683	17,075	-20,775
5		25,000	0.621	15,525	-5,250
6		25,000	0.564	14,100	88,850

The payback period is calculated on the basis of the fraction of year 5 needed to bring net cash flow to zero. In this case:

$$\text{Payback} = 5 - (-5,250/25,000) = 5.21$$

Some Results of Payback Analyses

In a survey of work force restructuring programs in six countries, Svejnar and Terrell (1991) found that payback periods varied from just four months to 4.7 years. Haltiwanger and Singh (1999) evaluated the financial returns of 41 downsizing operations based on World Bank internal documents for a range of civil service and state enterprise retrenchment programs. Their evaluation included a discounted financial payback method, which assumed a 10 percent annual discount rate. For the 24 operations with sufficient information to calculate payback analyses, their results can be summarized as follows:

- In 9 cases there were no net financial benefits from downsizing. These cases imply that there is never any payback (that is, the payback period is infinite). These circumstances arose as a result of rehires, new hires, or an increase in wages for the retained workers.
- In 15 cases there were positive financial benefits and the average payback period was 2.3 years. Fourteen of the programs had short payback periods of between 0 and 3.6 years—the one exception being the Bolivian mining corporation where the payback period was 10 years. The other 3 enterprises in the sample had payback periods of 3.40 (Bangladesh jute), 1.44 (Pakistan public enterprises), and 1.56 years (Argentina public enterprises). Programs with immediate payback periods (0 years) were those that involved involuntary reductions without direct compensation of other assistance.

These findings are striking. On the one hand, many labor programs appear to offer exceptionally good rates of return. Few investment projects display such

Most evaluations of work force restructuring programs reveal very fast payback periods.

high financial returns as the 15 cases mentioned. Other programs, however, have not recovered their cost, often because of the problems of adverse selection and rehiring described in module 5.



Haltiwanger and Singh.

Discounted Cash Flow Analysis

Work force restructuring can be viewed as a project. Classic investment projects are based on an (often high) initial capital investment, followed by a stream of positive cash flows arising over a number of years. Those positive cash flows are derived from productivity improvements that lead to higher revenues or greater savings. Work force restructuring shares a similar pattern, so the tools of investment analysis can be applied equally well to a work force restructuring project as to a capital investment project. (A sample spreadsheet is presented on the CD-ROM.)



Sample spreadsheet for analysis of labor projects.

Where work force restructuring involves significant downsizing, it is difficult to persuade some to see this as a “productive” investment. Downsizing is productive, however, in the sense that it removes and reallocates unproductive labor to more productive activities elsewhere. It increases labor (and often total factor) productivity within the enterprise. Where there is a genuine surplus within the work force, the jobs are not “real” jobs, and surplus workers’ marginal productivity within the enterprise is likely to be close to zero. Their expected productivity will be greater in other employment or other activities outside the enterprise.

When using discounted cash flow analysis techniques for labor adjustment, the implementing agency should check that:

- A mix of indicators is used, rather than relying on a single measure such as internal rate of return or net present value (see box 7.1).
- An appropriate discount rate is selected. Choosing the right discount rate is a com-

Many people would object to the idea that downsizing can be seen as a “productive” investment, but work force restructuring can be analyzed using the normal tools of investment appraisal.

Box 7.1: Indicators for Cost-Benefit Analysis

Three main indicators for cost-benefit analysis are:

1. **Internal rate of return (IRR)** is the discount rate at which the future streams of costs and benefits are equal. The higher the IRR, the better the project, so the IRR method is a convenient way to compare different alternative options in labor programs.
2. **Net present value (NPV)** is the difference between the discounted streams of future costs and future benefits. If costs exceed benefits, the NPV is negative; if benefits exceed costs, the NPV is positive. The NPV is the value, discounted to the present, of undertaking a work force restructuring project rather than not doing so. NPV assessments require that a predetermined discount rate is selected. One criticism of NPV assessments is that, when comparing alternative restructuring proposals, the decision rule would select the largest project (giving the highest NPV)

over a smaller project with a higher IRR but a lower NPV.

3. **Benefit-cost ratio (BCR)** is the ratio between discounted total benefits and costs. Thus, if the discounted benefits are \$150 million and the discounted costs are \$100 million, the BCR is 1.5 (and the NPV is \$50 million). The BCR is a useful check to the NPV process, as a way of spotting program options that offer attractive NPVs only because they are large. Reporting of BCRs again demands mention of the discount rate used.

In complex activities, such as work force restructuring, a single number—be it IRR, NPV, or BCR—is unlikely to be enough for informed decisionmakers. *Sensitivity analysis* shows how variations in the key assumptions underlying the analysis influence the expected outcomes of the restructuring program. At its simplest, this means running a spreadsheet model under different assumptions and presenting these variations in a table.

Economic analysis provides a perspective that financial analysis alone cannot.

plex issue but, in practice, sources of information for the rate are the general interest rate defined by the ministry of finance for the application of public funds—the best source—or offices of international lending agencies such as the World Bank and regional development banks.

- Costs and benefit flows have been calculated for a sufficient period. If discount rates are about 8–12 percent, then a 20-year period is likely to be sufficient.

ASSESSING ECONOMIC RETURNS

This section outlines the rationale for, and elements of, economic analysis of labor programs. The resources listed at the end of this module include several examples of economic analyses of work force restructuring in public enterprises.

Rationale

As discussed above, the near-term financial benefit for government is sometimes the critical factor for cash-strapped ministries of finance faced with an urgent need for infrastructure enterprise reform. However, economic analysis is also needed for the following purposes:

- First, it assesses impact on *aggregate output or welfare*. Financial analysis tells nothing about whether displaced workers are, in the aggregate, more or less productive following the labor program. It is quite possible that a proposed labor program can be attractive from the financial analysis perspective, but can fail when subjected to economic analysis.
- Second, it provides *an answer to opponents* of work force restructuring in PPI, who may argue that by ignoring the wider economic costs and benefits, government is making a bad decision (see, for example, the South African case presented in box 6.9 of module 6).
- Third, it may be *a requirement* of international funding agencies whose lending or

funding procedures need economic as well as financial analysis.

Labor productivity issues are central to an economic view of work force restructuring, which sees the process as a reallocation of resources within the economy. From an economic cost-benefit perspective, the cost of restructuring must be met by an increase in worker productivity following displacement. The effect of moving workers out of the PPI enterprise into other parts of the economy can lead to negative outcomes if overall labor productivity falls, neutral outcomes if overall labor productivity is unchanged, or positive outcomes if overall labor productivity rises. Much therefore depends on the assumptions regarding marginal productivity of the worker in the enterprise compared with the marginal productivity of his or her activities following retrenchment.

Economic vs. Financial Costs

Economic cost-benefit analysis is similar in approach to the discounted cash flow approach to financial analysis. As the spreadsheet sample on the accompanying CD-ROM shows, both financial and economic analysis can be combined in the same cost-benefit model. Financial costs and benefits are substituted by economic costs and benefits in the economic cost-benefit analysis.

Differences between economic and financial costs (summarized in table 7.4) are as follows:

- **Financial costs of severance (item 1):** In economies with no tax distortions or subsidies, and no fiscal budget constraint, the financial costs of severance would not normally be treated as an economic cost. Rather they would be seen as a neutral transfer payment. Most developing countries, however, do have distortions and budget constraints, so severance payments to workers divert public funds from other uses. Except in a few upper-middle-income countries, a conservative approach would be to treat the economic costs of severance as 100 percent of the financial costs.

Table 7.4: Economic vs. Financial Costs and Benefits

Item	Cost and benefit items	Include in financial analysis?	Include in economic analysis?
	<i>Costs</i>		
1	Financial costs of severance	Yes	Yes—adjusted
2	Financial costs of early retirement	Yes	Yes—adjusted
3	Financial costs of redeployment	Yes	Yes—adjusted
4	Marginal productivity of employees in the SOE	No	Yes
	<i>Benefits</i>		
5	Financial savings on wages	Yes	No
6	Financial savings on nonwage benefits	Yes	No
7	Marginal productivity of worker outside the SOE	No	Yes
8	Marginal productivity value of labor savings	No	Yes
9	Increase in privatization proceeds from downsizing	Yes/No	No
10	Increase in privatization proceeds from faster PPI	Yes/No	No

- **Financial costs of early retirement (item 2):** Similar considerations apply for the costs of early retirement as for severance. In practice, the principal difficulty is likely to be the estimation of the present value of the net financial costs of early retirement.
- **Financial costs of redeployment (item 3):** If private sector firms are providing redeployment services (training, counseling, outplacement) then the full market price of the training can be taken as the economic resource cost of redeployment. Where governments delegate redeployment to state agencies that are heavily subsidized and operating below capacity, the economic costs are likely to be below financial costs, and an adjustment factor should be applied.
- **Marginal productivity of employees in the SOE (item 4):** If there is a genuine surplus of workers, their retrenchment will not result in a loss of productivity in the enterprise, and the marginal productivity of employees in the enterprise can be set at zero. This is a reasonable assumption, *if* the work force restructuring strategy adequately tackles the risk of adverse selection (for example, through close targeting of workers offered severance, through restricting downsizing to cadres with obvious levels of surplus labor, or through a mixed government–investor approach (see table 4.1, module 4).
- **Financial savings on wages (item 5):** This is likely to be one of the largest sources of savings. Two points are important:
 1. Given the evidence of rehiring in many downsizing programs, an explicit adjustment factor to take rehiring into account may be appropriate in the financial analysis. If workers are hired elsewhere in government, or by the same enterprise, financial saving will be reduced. For example, employees of the Sri Lanka Transport Board were induced to leave with severance funding, but were being rehired almost simultaneously (Svejnar and Terrell 1991). High numbers of workers rehired following a labor program are an indicator of the failure of the program, both in a financial sense (a waste of public money in financing the costs of the workers' departure) and in an economic sense (a failed attempt to reallocate the workers' labor to more productive use). Some new hiring is occa-

sionally needed, however, to bring missing skills to the work force.

2. A decision needs to be made on whether to adjust wage savings to take account of enterprise profits. *All other things being equal*, a wage saving should ultimately return to the budget whether the enterprise is fully or partially subsidized.

- **Financial savings on nonwage benefits (item 6):** This should take into account savings from reduced expenditure on all allowances, plus projected cost savings arising from the closure or reduction of services provided to employees such as food, medicine, housing, education, and cheap loans.
- **Marginal productivity of a worker outside the SOE (item 7):** This is the product of (a) the probability of an employee's engagement in a productive activity and (b) the net income produced by this activity. The marginal productivity of the retrenched worker after he or she has left the enterprise therefore depends greatly on his or her circumstances following retrenchment (see "Assessing the Effects on Workers' Welfare" in this module for a list of potential postretrenchment circumstances). Incomes will depend on worker attributes (age, education, and, in some situations, gender); market conditions (overall economic growth rate, labor market supply, and demand); and worker location (capital city, urban, rural).

Estimates of workers' marginal productivity should be based on local market information. This should be assumed to be less than current salaries. But what factor should be applied? Evidence suggests that even in industrial economies a permanent earnings reduction of 15–20 percent can be expected among displaced workers, but reductions may be even greater in developing countries with public sector wage premiums (see box 1.1 in module 1). Moreover, many workers go not into formal employment but into informal employment or self-employment,

about which there are fewer data. Estimates of marginal productivity—disaggregated by the major classes of workers—can be best sourced from data of actual wage or income levels outside the public sector, gained from labor surveys, national statistics, agricultural economics studies and research, household income surveys, interviews with placement and business support agencies, and (if possible) focused follow-up studies from earlier retrenchment exercises.

- **Marginal productivity value of labor savings (item 8):** The economic value of the wage savings following downsizing should reflect the opportunity costs of these savings if invested by the enterprise in expanded service areas, improved productivity, or improved quality of service by the enterprise. Assuming the enterprise is budget constrained, then this opportunity cost can be set as 100 percent of the financial cost.
- **Increase in privatization proceeds from downsizing (item 9):** Global evidence of the increase in privatization proceeds as a result of downsizing is limited. The best study (that of López-de-Silanes 1997) suggests an increase of net privatization prices of 12 percent for every 10 percent reduction in the labor force. However, because investor behavior is difficult to predict, a conservative approach would be to ignore the prospect of improved privatization prices in both economic and financial analysis, or treat it as a factor in a sensitivity analysis.
- **Increase in privatization proceeds from faster PPI (item 10):** A key rationale for work force restructuring (particularly through voluntary departure and early retirement) is that it helps remove barriers to PPI investment by reducing political and worker opposition to PPI.

In the absence of country-specific estimates, a conservative approach to cost-benefit analysis will probably ignore this time effect on privatization proceeds, not least because there are many potential sources of delay to

a transaction in addition to labor issues. Nonetheless, in some circumstances the time effect may be a significant source of benefits.

EVALUATING LABOR MARKET PROGRAMS

Constructing the Counterfactual Analysis

Evaluation is the periodic assessment of the relevance, performance, efficiency, and impact of the project in relation to stated goals. It differs from monitoring in that it is not an essential task for the implementing agency. Evaluation is mainly concerned with impact, which may only be measurable toward the end of implementation or in later years and so is often better done by a separate agency independent from implementation.

A central requirement of any evaluation is separation of the effects that would have happened anyway from those that resulted from the intervention. Before-and-after comparisons alone are not sufficient. If earnings rise after training, for example, that may be the result not of the training but of changes in the macroeconomy or local changes in labor demand or of such worker-specific attributes as life-cycle changes in earnings.

Evaluation therefore requires a counterfactual test, which is normally provided by a control or comparison group of workers who did not participate in the severance or redeployment program. Box 7.2 illustrates the importance of creating such groups for a hypothetical redeployment training program.

Counterfactual analysis can use either:

- **Control groups**, which consist of participants that are selected at random within a well-defined population from which the members of the treatment group are also selected
- **Comparison groups**, which consist of participants who are purposively matched to the participants in the treatment group.

Counterfactual analysis demands careful choice of the scenarios against which the outcomes of labor programs are compared. For example, if the introduction of a PPI project in a declining public sector port leads to the loss of 1,000 cargo-handling jobs out of a total of 3,000 jobs through voluntary departure over three years, which of the following is the appropriate counterfactual comparison?

- The before-and-after calculation of 1,000 job losses
- A comparison with trends in other similar public sector ports (which might suggest an annual decline of 10 percent in cargo handlers as mechanization is introduced)

Evaluation is mainly concerned with impact.

Box 7.2: The Importance of Control Groups—A Hypothetical Example

In the town of Abca, 1,000 workers were laid off as a result of the closure of the ABC Gas Company. Based on random selection, 500 workers were given a severance package and the other 500 were put through an intensive retraining program in computer skills. All 1,000 people were monitored over time. Three months after the completion of the training, 400 trainees were employed. This employment rate of 80 percent for the treatment group was touted by many as the impact of the training program.

However, Abcan evaluators cautioned against using only this figure to judge the success of the program. They wanted to compare this employment percentage to that of the control group—those who did not go through training. It was found that 375 of the control group of 500 were also employed three months after the treatment group completed its training—an employment rate of 75 percent. Hence, Abcan evaluators judged that the true impact of the training program was 5 percent, not 80 percent.

Although this example makes many generalizations—there was no selection bias or randomization bias, those who got a severance package did not enroll in any training or other related labor programs, and so forth—it serves to illustrate the importance of using control groups when evaluating the impact of labor programs.

Source: Adapted from World Bank, no date.

- A comparison with normal annual rates of job loss and job creation in private sector ports (a private sector counterfactual test)
- A comparison with cargo-handling labor benchmarks in the most efficient ports internationally against which the port can reasonably be compared.

In each case the counterfactual alternative provides the “what-would-have-happened-if” comparison (in this case, what would have happened if PPI had not happened). Each comparison is, however, likely to give rather different answers, and small differences in the assumptions and comparisons being made can lead to very different conclusions. This is why the use of a counterfactual test with a very clear definition of the assumptions being used is so important.

Assessing the Impact of Redeployment

In developing countries the evaluation of redeployment programs, social safety net programs, and active labor market programs has generally been inadequate.

One reason for the neglect of evaluation might be that properly assessing the impact of redeployment presents a significant technical challenge to evaluators everywhere. Undertaking a robust counterfactual analysis is particularly difficult because participants in, for example, a training program may be selected or may self-select. Such selection biases can distort policy conclusions, and redeployment programs are especially prone to these biases.

Evaluators use two methodological approaches to tackle these selection problems:

1. An *experimental approach* randomly assigns individuals to enter a program. This approach avoids many (though not all) of the selection problems of statistical methodologies. It is difficult to implement, however, for practical reasons (that is, cost and the fact that only current or future programs can be evaluated by this approach) and for ethical and political reasons (for example,

some workers are refused entry to the program). Few developing countries are likely to implement such an approach. A recent illustration of such an evaluation is that of a job-search assistance program for unemployed workers in the United Kingdom, where the evaluation identified a 6 percent lower unemployment rate among participants five years after the initial program (Dolton and O’Neill 2002).

2. A *statistical approach* allows selection of the participant and nonparticipant groups after the redeployment program has started. To deal with selection biases, complex econometric techniques are needed to reduce the biases (elimination is not possible). Regression techniques and matched-pair comparisons are the principal statistical tools. The main advantage of statistical approaches is that the evaluation can be done at any time, provided that adequate longitudinal data are available.

Dar and Gill (1998) summarized these alternative methodological approaches in the context of retraining programs. Theoretically, experimental techniques are more robust. However, the statistical approach is more practical, although it can be subject to large biases that risk offering false conclusions to policymakers. Matched-pair statistical techniques are preferable to regression-based techniques because (a) they offer the greatest potential for reducing differences between the participant and nonparticipant groups (other than the redeployment program), and (b) the results are easier for nonstatisticians and policymakers to interpret.

The example of the evaluation of Mexico’s retraining program for unemployed and displaced workers (box 7.3) illustrates some of the challenges of conducting evaluations. Problems for evaluators include:

- **Creaming:** If program managers are evaluated on the percentages of trainees who find employment, then creaming may occur. In this situation managers actively select the best or most-qualified trainees to inflate the program’s apparent success rate:

Redeployment programs in developing countries have rarely been subject to rigorous evaluation.

Rigorous evaluation presents a technical challenge to evaluators and requires specialist skills.

The analogy is to whole milk where the richest part, the cream, floats to the top and can be skimmed off. Creaming is an issue in labor market programs because if only the most able people get reemployment assistance, then the benefit to society of the programs is not as great as it might be otherwise. Highly qualified program entrants have a good chance of becoming reemployed even without the services offered in the program, while for less qualified applicants the program services might be the only realistic path to employment (O'Leary 1999, p. 3).

To tackle this problem in evaluations, the right counterfactual test is needed. If the employment rate of participants is compared with that of all displaced workers, then the apparent success of the program will be inflated. Control or comparison groups should therefore compare trainees with other displaced workers who had similar levels of qualifications and other observable attributes.

- **Creating matched control or comparison groups:** If evaluations are undertaken some time after the program is completed, it becomes increasingly difficult to ensure matching between the treatment and the control or comparison groups. In Mexico's PROBECAT evaluation, for example, the comparison group was taken from a separate data set of an urban household survey of workers who were also unemployed at the time that unemployed trainees entered the PROBECAT program. Such different data sets may not be fully comparable. Ideally, control or comparison groups should be individually matched, but adequate data for such matching are available only sometimes.
- **Self-selection:** In training programs where individuals choose (self-select) whether to enter the program, the problem of constructing the counterfactual comparison becomes more difficult because those who attend the program will be different from those who do not. If trainees volunteer for the program because it offers a stipend, for

example, this can lead to selection biases when evaluating the program.

- **Dropouts:** This is a related problem. If trainees drop out of the program when they find jobs, is that counted as a program success? Or does it simply show that trainees merely participated for the stipend?
- **Dead-weight loss:** In later phases of PROBECAT, in-service training was provided by local employers. Government provided the workers' stipend, and the employers were required to hire at least 70 percent of the trainees. "Dead-weight loss" refers to the fact that firms participating in the in-service training would have hired some of the same workers anyway.
- **Influence of the very existence of the program:** The evaluation approach outlined in box 7.3 used a conventional "differences-in-differences" approach, where the before-and-after earnings or employment changes for participants in the redeployment program are compared with the before-and-after change for a similar group of nonparticipants at a similar time. The approach assumes that the existence of the program itself is an external variable. Training programs may function as a form of job search for many of their participants (Heckman and Smith 1998). The decision to participate therefore also needs to be controlled for in the design of the evaluation.
- **Displacement effects:** If a program participant improves his or her reemployment chances at the expense of nonparticipants, then one person's job may merely be taken by another. If this happens the program's overall benefit to the economy as a whole may be less than intended.
- **Changes in program design:** Programs often change their design and approach during implementation. This is a problem for evaluators because (a) it compounds selection problems and (b) what they are evaluating may be seen as the "old" approach and therefore not relevant.

Any evaluation needs to correct for potential selection biases.

Box 7.3: Example of a Redeployment Evaluation—PROBECAT, Mexico

In 1984, as a response to a growing economic crisis, the government of Mexico established a labor retraining program for unemployed and displaced workers—Programa de Becas de Capacitación para Trabajadores, or PROBECAT. Revenga, Riboud, and Tan (1994) reported an impact evaluation analysis. The evaluation set itself four clear questions. First, what is the impact of training on the subsequent employment experiences of trainees? Second, does training increase the speed with which trainees move from unemployment to employment? Third, conditional upon finding employment, what effect does training have on the monthly earnings, work hours per week, and hourly wages of trainees? Fourth, do the monetary benefits from program participation outweigh the costs of providing retraining for the unemployed?

PROBECAT was a large program. At the time of the evaluation it had trained 251,181 unemployed people and provided 9,268 courses since 1987. During the training period (usually three months), program participants received a stipend equal to the minimum wage. Vocational courses were organized to respond to the needs of the local labor market and were designed to redress local shortages of workers with particular skills. These needs were determined through periodic studies of local labor market conditions.

Not everyone was eligible to participate in PROBECAT. The selection procedure gave variable weights to different criteria, including the number of economic dependents, attainment of certain levels of basic education, prior work experience, and unemployment of less than three months. The weighting scheme was quite complex and nonlinear, and only individuals with a total composite score exceeding a threshold level were eligible to join the program. In addition, participants had (in theory) to be between the ages of 20 and 55 and be registered as job seekers at the local state employment office. This nonrandom selection of individuals into PROBECAT posed potentially serious measurement problems for the evaluation of the training program.

The evaluation approach taken was to adopt a statistical methodology to account for the selection bias in the program, and to compare the post-training labor market experiences of PROBECAT trainees with those of a comparison group—a matched sample of unemployed people who were eligible for but did not participate in the training program. The evaluation found that participation in the training program decreased the period of unemployment for men and women trainees and increased the monthly earning of men but not of women.

Source: Revenga, Riboud, and Tan 1994.

Given the importance often attached by governments to redeployment, there is a good case for better evaluation. In a review of active labor market programs, Fay (1996) concluded that evaluation will be improved if:

- **Evaluation is made compulsory in the program design phase.** Most donor-funded programs are subject—or potentially subject—to postevaluation. Although the benefits of evaluations may not accrue to the government, they will improve the quality of the database for other countries.
- **Evaluations are more rigorous.** Evaluation of the overall effects of labor programs is complex. The design of the evaluation methodology requires specialist economic and evaluation skills.
- **Evaluations are undertaken by nongovernment agencies.** This has two benefits: governments do not need to use scarce professional resources; and if the results come from an independent organization, they will probably carry more weight.
- **The period of evaluation is extended.** Impacts on workers of, for example, retraining may not be observable shortly after the end of training. It may be valuable to wait longer after the program before beginning the evaluation.

Evaluation studies of active labor programs have been conducted in middle-income countries at costs of about US\$150,000 (Fretwell 2002), which is a relatively modest amount compared with the levels of expenditure incurred.

Evaluations should include assessment of the costs and benefits of redeployment.

In addition, the costs and benefits of redeployment need particular attention because they are often neglected in evaluations. Although evidence is patchy (Dar and Gill 1998), cost-benefit assessments indicate that:

- Large-scale retraining programs may not be as effective as other measures, such as job-search assistance.
- Targeting programs may improve their relevance and effectiveness. In some cases (for example, in Hungary) redeployment training is better focused on relatively disadvantaged job seekers, whereas other evaluations (such as PROBECAT in Mexico) suggest that the program is more cost-effective if focused on better-educated and more experienced job seekers.

Box 7.4 offers some key indicators that could be used both for interim (gross impact) monitoring of redeployment programs (where usually there will be batches of trainees) and for subsequent net impact evaluations.

Assessing the Effects on Workers' Welfare

One of the simplest approaches to estimating worker welfare loss was that of Galal and others (1994) in their evaluation of the impact on workers of one form of private participation (privatization). As Birdsall and Nellis (2002, p. 31) pointed out, that approach was “simple, completely open in noting the short cuts taken and derives a usable, quantified answer to a most complex question”—in their case, whether workers had been worse or better off following severance. To illustrate their approach they simply assumed an average wage in the economy (for example, \$250 per month), and if it took workers 10 months to find a job, then workers receiving a severance package of \$2,500 would be no worse or better off.



Birdsall and Nellis 2002.

This simple approach does not provide a robust counterfactual test. In practice, however, it can be difficult to eliminate other factors influencing the impact on workers. As Rama and MacIsaac (1999, pp. 101–2) noted:

The most straightforward indicator of the loss experienced by displaced employees is the change in their annual earnings, excluding returns from invested compensation. This indicator could be criticized on the grounds that earnings before separation do not provide an appropriate counterfactual. A case could be made that the appropriate comparison is with the earnings these employees would have received had there been no downsizing. If the situation prior to downsizing was unsustainable, it could be argued, earnings would have declined in any event. Alternatively, if the situation was sustainable, some of these employees would have gotten pay raises and promotions in the 15 months elapsed since separation. More generally, the appropriate comparison would be between the lifetime earnings profile after separation from [the enterprise] and the corresponding earnings profile in the case of no separation. But this comparison would require heroic assumptions, so that it is safer to stick to observed earnings before and after separation.

Box 7.4: Possible Cost and Benefit Indicators for Redeployment Programs

- Average cost per entrant into counseling or training—disaggregated among different types of counseling or training
- Average cost per trainee employed
- Percentage of trainees employed or self-employed
- Percentage of trainees engaged in the vocation of training
- Average monthly wages/net incomes of trainees (absolute and relative to preprogram incomes)
- Average household incomes (to assess effects on other family members and the household as a whole)

More robust evaluations of effects on worker welfare, however, can use the same experimental and statistical methodologies described above for evaluating redeployment impacts. Unfortunately, there have been few longitudinal tracer studies on what actually happens to displaced employees over time.

A further difficulty in assessing impacts on workers' welfare is the wide range of workers' outcomes following displacement:

- They retire and cease looking for paid employment or income-earning opportunities.
- They cannot find work or incomes and remain in long-term unemployment.
- They find alternative permanent employment.
- They find alternative short-term, contractual, or informal employment.
- They chose to become self-employed as individuals or start a microenterprise.
- They launch a formal small business with potential for growth.
- They expand existing income-earning activities that they were already running while employed in the enterprise (either “moonlighting” or “daylighting”).
- They migrate out of the region to find jobs or to return to rural communities where the family home is based.

If workers migrate to find new employment, follow-up evaluation is more difficult and more costly, and it is likely that such workers will not be captured in subsequent evaluations. In a survey of 5,334 workers from Brazil's railway, 1,217 workers could not be found because they moved without a trace (Estache, Schmitt de Azevedo, and Sydenstricker 2000).

In a follow-up survey of 675 former workers in Brazil that was conducted two to three years after retrenchment, it was found that although 53 percent were earning less than when they were at the state enterprise, 23 percent were making a better

living. In general the dispersion of wages was greater in this survey than one conducted nine months earlier. (There is no information on the sampling methods in these surveys, however.)

Most cost-benefit assessments make fairly simple assumptions regarding the consequences of displacement—a number of months of unemployment at a wage of zero, followed by a wage of, for example, 60 percent of the previous wage. Without more detailed tracer studies the impacts of more complex outcomes may not be well known. Nonetheless, it is clear that many displaced workers move into self-employment. Table 7.5 shows one example from Turkey, where nearly one-fifth of workers displaced during privatization used their severance money to enter into self-employment. A January 1998 survey of displaced workers in Brazil's federal railway found that “over half work on their own and 20 percent have opened their own business. Only 18 percent are employees and four percent are civil servants” (Estache, Schmitt de Azevedo, and Sydenstricker 2000, p. 18). A tracer study in Ghana found that nearly 70 percent of displaced civil servants went into self-employment (table 7.6). In addition, there may be impacts on others. Although SOE workers are relatively well paid, those benefits may be shared with households and extended families.

Assessing Overall PPI Benefits

Evaluating the success of a labor program requires that initial objectives be revisited. It asks, what were the initial objectives? and did the program meet those objectives?

An evaluation can be made at two levels:

1. **Evaluation against the specific objectives of the labor program itself:** This is the focus here, especially the impact of redeployment programs on workers' incomes and the period of unemployment, and the impact of labor adjustment on workers' welfare.
2. **Evaluation of the contribution of the labor program to achieving the wider policy objectives of PPI:** The effects of a labor program may go well beyond the consequences for indi-

Table 7.5: Turkey—How Workers Used Severance Compensation
(percentage of workers)

More detailed tracer studies are needed.

Many workers move into self-employment.

Use of severance money	Petrochemical workers (n = 682)	Cement workers (n = 563)	Total (n = 1,245)
Established own business	12.8	22.0	17.0
Used for daily expenses	31.4	28.2	30.0
Lent money	6.0	1.7	4.0
Placed time deposit in a bank	22.1	5.4	11.2
Bought a house	40.0	36.1	38.2
Bought gold or foreign exchange	9.4	18.3	13.3
Bought treasury bills	1.6	0.4	1.1
Bought securities	0.9	0.7	0.9
Used interest income for daily expenses	7.1	5.0	6.2
Used rental income for daily expenses	4.2	3.4	3.8
Bought a car	18.1	10.0	16.7
Bought land	3.5	1.4	2.6

Note: Based on an interview where respondents were faced with a number of possible choices and asked to choose as many as applicable. So, for example, around 40 percent of petrochemical workers stated that they bought a house with their severance compensation.

Source: Tansel 1996.

Table 7.6: Preferred Employment Status of Redeployed Civil Servants—Ghana

Preferred employment status	Agriculture		Nonagriculture		Total	
	Number	Percent	Number	Percent	Number	Percent
Self-employment	1,124	72	782	65	1,906	69
Cooperative	420	27	260	21	680	24
Private wage employment	20	1	164	14	184	7
Government	2	0	6	0	8	0
Subtotal	1,566	100	1,212	100	2,778	100
No preference (number)	95	n.a.	837	n.a.	932	n.a.
Total sample size (number)	1,661	n.a.	2,049	n.a.	3,710	n.a.

n.a. Not applicable.

Note: Based on sample of workers opting for retraining.

Source: Alderman, Canagarajah, and Younger 1994.

vidual displaced workers. Table 7.7 indicates the scope of a comprehensive assessment—which would include impacts on government, consumers, investors, and labor unions, as well as workers themselves. Box 7.5 summarizes information on the extent to which labor variables influence privatization prices.

MONITORING LABOR PROGRAMS

Monitoring of the labor program is a management task, but one that is often overlooked and neglected.

Monitoring differs from evaluation in that it is principally a management function, which typically

Table 7.7: Assessing Labor Programs—A Checklist of Potential Effects on Different Stakeholders

Type of impact	For government	For unions	For employees	For consumers and customers	For investors
Positive effects	<ul style="list-style-type: none"> • Reduced subsidies or net costs of providing PPI services • Time advantage from faster completion of PPI transaction, and faster implementation of investment or service improvements • Revenues from PPI transaction (concession or privatization receipts) • Increases in tax revenue from private operators • No disruption of service (power supplies, port operations) 	<ul style="list-style-type: none"> • Greater job security (but for fewer employees) • Stronger role, if consulted and participate in preparation of the labor program 	<ul style="list-style-type: none"> • Salary improvements for retained workers • Changes in labor contracts that affect (improve or reduce) non-wage benefits 	<ul style="list-style-type: none"> • Faster access to improved PPI services • Evidence of growth in supply of services (e.g., access to water) or demand for services (number of passengers on trains) • Reduced costs to business (e.g., telecommunications, transportation) • Reduced tariffs to consumers (services) • Service quality improvements 	<ul style="list-style-type: none"> • Improved financial performance • Reduced costs • More flexible labor contracts • Improved labor productivity
Negative (adverse) effects	<ul style="list-style-type: none"> • Political costs (if disputes) • New incremental costs • Financial loss if rehiring takes place 	<ul style="list-style-type: none"> • Loss of membership numbers • Reduced bargaining power 	<ul style="list-style-type: none"> • Loss of salary and other tangible and intangible benefits for displaced workers 	<ul style="list-style-type: none"> • Increased tariffs (if there are labor cost increases) 	<ul style="list-style-type: none"> • Higher wage or benefits costs if negotiated upward by labor prior to PPI • Less flexible labor contracts • Loss of valuable skills if adverse selection

Box 7.5: Impact of Downsizing on PPI Prices

The very high levels of downsizing in infrastructure enterprises described in module 2 suggest that infrastructure enterprises are qualitatively different from other privatizations or PPI schemes. Unfortunately, there is little evidence of the impact of downsizing on PPI prices received from investors. In part this is because investor behavior is inherently complex, and in part because downsizing is often part of a wider package and investor responses to downsizing may be confounded by other changes (such as revised labor contracts or relations). In some cases, without work force restructuring it is unlikely that any investor will be found. The dramatic work force restructuring in Mexico's airlines, described in module 4 (Box 4.9) is one example. Another is Argentina's railway, which Ramamurti (1997) characterized prior to privatization as a "lemon"—an enterprise not attractive to a private investor because it was in a stagnant or declining market with poor profit prospects—but noted that:

The government did several things to turn FA [Ferrocarriles Argentines] from a lemon—not into a plum—but into a much sweeter proposition than before (a grapefruit?) Four government steps in that direction were: breaking the FA's unions, picking up the tab for downsizing its work force, splitting up the company into smaller parts and then leasing rather than selling its assets. In addition, the unions agreed to greater flexibility in the deployment of workers, and to negotiate contracts with private owners that would increase rail's competitiveness (p. 1982).

One attempt to review alternative factors influencing privatization prices is that of López-de-Silanes (1997). Using a database of all 236 Mexican privatizations between 1983 and 1992, he assessed the factors that influenced privatization price (as measured by a privatization quotient [PQ]). He found that "labor issues play a central role in explaining privatization prices" (p. 997), and that after accounting for endogeneity, reduction in the labor force increased privatization prices: "the net effect of a 20 percent reduction in the labor force before privatization is a 24 percent increase in PQ, evaluated at the predicted mean" (p. 1015). Moreover, union relationships were important: union contract renegotia-

tion improved privatization prices (although this was not statistically different), and industrial disputes strongly depressed privatization prices: "one of the strongest results...is that an additional strike in an SOE leads to a 19 percent reduction in the net price evaluated at the mean predicted PQ" (p. 997).

A more recent assessment by Chong and López-de-Silanes (2002) undertook follow-up surveys of 308 privatized enterprises taken from a global database of privatizations. Using dummy variables for various labor downsizing policies, they found that labor downsizing did little for net privatization prices. The analysis, however, was unable to differentiate between large levels of downsizing—as occur in most infrastructure privatizations—and more modest levels of downsizing (only a quarter of the survey respondents provided any numerical information).

Evidence of the complexity of investor behavior comes from private sector work force restructuring. The common assumption is that stock market prices will rise following downsizing. Abraham and Kim (1999) reviewed a number of studies on the effects of downsizing on investor behavior and found that the evidence is inconclusive. Their own study of 381 firms found that *both* layoff announcements and employment guarantee announcements lead to reductions in stock market share prices. They suggested that investor response depended on the net result of four possible effects on investor behavior following downsizing:

1. A positive cost-saving effect (downsizing reduces cost of production)
2. A positive efficiency effect (downsizing improves overall firm efficiency)
3. A negative industrial relations effect (downsizing leads to poorer labor relations)
4. An ambiguous signaling effect (for a firm in good shape, layoffs indicate a positive response to changing circumstances; for firms in poor shape, layoffs confirm that firm performance is poor or even worse than expected).

Note: PQ is government's net privatization price after restructuring, adjusted by the percentage of company shares sold plus total liabilities at the time of privatization, divided by the total assets of the company at the time of privatization.

involves both review of performance against target performance indicators and forward-looking forecasts (see box 7.6). Effective monitoring of the labor program is integral to good management by the implementing agency. It provides the agency continuous feedback on implementation and identifies both successes and problems as early as possible to facilitate timely adjustments to project operation.

The potential benefits of monitoring assessments are large: one study in Tanzania found that the information from monitoring studies could have saved the government up to US\$7 million during the course of retrenchment of about 5,000 state enterprise workers.

Given the potential scale of infrastructure work force adjustment programs (thousands of workers, perhaps tens of millions of dollars), making the case for monitoring should seem unnecessary. It is clear, however, that when the work force restructuring plan is in place, some governments fail to monitor it adequately.

Why is this so? Five possible reasons:

1. **Ownership:** a general problem of all monitoring (and evaluation). If there is no customer for monitoring information, then monitoring systems are unlikely to work.
2. **An (incorrect) belief that implementation is the easy part:** When the big decisions have been made on the severance package, the mechanism of restructuring, and the scope of restructuring, the implementing agency and government officials may feel that the main challenges have been resolved. Unfortunately, all the evidence suggests that effective work force

restructuring needs strong, active ownership and strong monitoring during implementation.

3. **Compartmentalization within government:** Institutional gaps between policy and implementation responsibilities for work force restructuring can result in a lack of policy coherence and coordination
4. **The desire for a clean break:** There may be a concern that follow-up surveys can lead to raised expectations by workers of what government may be able—or willing—to do for them. Particularly if politicians have agreed generous severance terms, there may be a desire to minimize all contact with workers following severance.
5. **Exaggerated expectations:** There is a tendency among politicians and government spokesmen to convey exaggerated expectations of what redeployment programs can achieve. Hence, there is little subsequent interest in monitoring or evaluation if doing so might reveal a different story.

Where day-to-day implementation of some elements of work force restructuring is delegated to the enterprise or to other agencies, monitoring systems are particularly valuable. Here are some key steps that the implementing agency can take to help:

- Define and promulgate a set of *monitoring indicators*, against which the implementation managers report, and indeed on which the implementing agency reports. Possible indicators are set out in box 7.7. These indicators on their own will not guarantee effective monitoring. But the selection of an indicator can help to ensure that progress is made in that area.
- Require *regular staffing reports* from the enterprise. These will be especially relevant where there are high risks of adverse selection or rehires or a history of labor hoarding, or where the PPI process is likely to be slow. A sample monitoring report provided on the accompanying CD-ROM illustrates a format for monthly or quarterly reporting of work force change due to natural retirement and attrition, soft options (such as transfers,

Box 7.6: Monitoring and Evaluation Defined

Monitoring is the continuous assessment of program implementation in relationship to agreed schedules and the use of program outputs by beneficiaries.

Evaluation is the periodic assessment of the relevance, performance, efficiency, and impact of the program in relationship to stated goals of the program.

Box 7.7: Severance and Redeployment: Some Monitoring Indicators

The key objectives of monitoring are to assess overall progress and performance of the work force restructuring program, to identify the extent of adverse selection, and to reinforce accountability in the use of public funds. Examples of monitoring indicators are:

Severance Indicators

- Numbers of workers displaced by different mechanisms (early retirement, voluntary departure, mandatory departure, administrative leave)
- Disaggregation of displaced workers by age, grade, years of service, gender, ethnic group, region
- Disaggregation of displaced workers by skill/job description/operating unit
- Staffing ratios (based on relevant benchmarks, such as those described in module 3)
- Total wages and staff-related costs (from financial management reports)
- Total employment changes in the enterprise—inflows and outflows (monthly or quarterly reports).

- Time between workers' termination and receipt of monies
- Time between termination and receipt of audited accounts for disbursement
- Total and average severance payments
- Percentage of disbursements with queries/outstanding (sorted by reason)
- Numbers of appeals filed by workers against severance period.

Redeployment Indicators

- Numbers and percentages of displaced workers who receive counseling of different types, job-search assistance, training, or retraining
- Disaggregation of displaced worker by age, grade, years of service, gender, ethnic group
- Number (percentage) of dropouts from different training programs/percentage completing training
- Duration of training programs (training days per worker) disaggregated by type of training and by worker characteristics.

Not all of the above indicators are needed. In general, use as few indicators as necessary.

Governments commonly fail to monitor labor programs effectively.

Insufficient investment in monitoring can suggest that the size of the implementation challenge has been underestimated.

administrative leave, and removal of ghost workers), early retirement and voluntary departure, rehiring, and new hiring.

- **Clearly define the objectives and institutional responsibility for monitoring.** This can include the creation of special units within the implementing agency to monitor compliance with labor (and other) conditions in PPI contracts. In Germany the privatization agency—the Treuhandstadt—set up a special department responsible for enforcing privatization contracts using penalties and legal action; when the agency was dissolved, those monitoring tasks were transferred to another government body.

**Tools (on the CD-ROM)**

Spreadsheet for analysis of labor projects

Labor program monitoring report

Example terms of reference for impact evaluation

Monitoring and evaluation performance measures for job-search assistance services

**Additional Material (on the CD-ROM)**

Birdsall, Nancy, and John Nellis. 2002. "Winners and Losers: Assessing the Distributional Impact of Privatization." Working Paper 6. Center for Global Development. World Bank, Washington, D.C.

Chen, Yi, and Ishac Diwan. 2000. "When the Bureaucrats Move out of Business: A Cost-Benefit Assessment of Labor Retrenchment in China." Policy Research Working Paper 235. World Bank, Washington, D.C. (Sets out a methodology to estimate the costs and benefits of labor retrenchment in state-owned industrial enterprises in China.)

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- Grubb, W., and P. Ryan. 2000. *The Roles of Evaluation for Vocational Education and Training*. Geneva: International Labour Office. (Focuses on vocational training but provides an overview of evaluation techniques and methodologies.)
- López-de-Silanes, Florencio. 1997. "Determinants of Privatization Prices." *Quarterly Journal of Economics* 62(4):965–1025. (Reviews the determinants of privatization prices using a data set of all Mexican privatizations in the period 1983–92.)
- O'Leary, Christopher J. 1995. "Performance Indicators: A Management Tool for Active Labor Programmes in Hungary and Poland." *International Labour Review* 134(6):728–51. (Outlines potential performance indicators.)
- O'Leary, C., A. Nesporova, and A. Samorodov. 2001. *Manual on Evaluation of Labor Market Policies in Transition Economies*. Geneva: International Labour Office. (Discusses various labor market programs in transition countries, evaluation methodology, and how to use the evaluation results.)
- Schmid, G., J. O'Reilly, and K. Schomann. 1996. *International Handbook of Labor Market Policy and Evaluation*. Cheltenham, United Kingdom: Edward Elgar Books. (Outlines the various methodological approaches adopted in evaluation research, presents cross-country evaluation findings, and presents insight into institutional frameworks and systems of monitoring and evaluation.)
- Tansel, Aysit. 1996. "Workers Displaced Due to Privatization in Turkey: Before versus after Displacement." Paper presented at World Bank Conference on Public Sector Retrenchment and Efficient Compensation Schemes, November 6–7. Washington, D.C. (Illustrates a methodology for evaluating the impact on workers of a work force restructuring program.)



Web sites

- International Institute for Labour Studies.
www.ilo.org/public/english/bureau/inst/index.htm.
(Conducts and publishes research on labor markets and labor policies.)
- World Bank Operations Evaluation Department:
www.worldbank.org/oed.



Other Material and Sources

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