

***Reorienting training policies and systems to promote
shared prosperity and growth***

A Background Report for: Training for Employment, Productivity and Social Inclusion,
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prepared by

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Introduction

This background paper focus on issues that all social partners will need to address as they reform their training systems to meet the skills demands of the next century. The need and challenge to reform workforce skill development has been intensifying around the world. The introduction of new technologies has reduced the demand for unskilled labor and raised the payoff to advanced skills in advanced industrialized economies. Within the service sector, technological change has created new categories of high-skilled occupations in health care, information processing, and business services. Even within the goods-producing sector, new technologies have devalued physical strength and faithful adherence to routine while emphasizing workers' training, flexibility, and initiative. Stepped-up technological evolution offers new opportunities for those in a position to seize them. Workers with the right training, and with the educational foundations that equip them to continually improve their skills, discover that new communications and information technologies leverage their ability to create economic value. Employers bid for the services of these high-skilled workers, and their earning power soars. But those who placed their career bets on obsolete industrial structures, and who find themselves ill-equipped to adapt, are left stranded by the so called "New Economy".

As described in a recent joint ILO-World Bank report on skills investment (Dar and Gill, 1999), the need for vocational education and training is also rising in low growth developing countries, emerging markets economies, and transition economies. However the role that vocational education and training reforms will take in these different types of economies will vary considerably. For example, in low-growth developing countries the fall-off in government employment and the growth of the informal sector has meant that many of the existing formal institutional arrangements for vocational education and training for new entrants and incumbent workers are poorly linked to actual jobs. Training per se will not be sufficient to promote growth in these countries. [See boxes on Egypt and South Africa].

In emerging market economies that are experiencing rapid employment growth, the presence of skill shortages can threaten the sustainability of economic growth. The main training issue in these countries is the degree and speed to which employers and/or the government can meet these skill gaps. [see boxes on Malaysia and Mexico] Finally, in transition economies the workforce development issue is more often one of skills mis-match rather than the lack of skills. However, the degree to which vocational education and training institutions are linked to large state-owned enterprises can be a potential drag on the training system's capacity to provide retraining for the private sector. [see box on Hungary]

Yet even if there is an emerging consensus on the feasibility and urgency of undertaking major investments in worker training, there is still be considerable dispute on just how to accomplish this. On at least two dimensions—the sharing of policy responsibility across levels of government, and the roles of training providers, employers, and workers themselves in decision-making about job training—the policy debate features fundamental uncertainties and controversies.

One of the biggest issues is where policy-making authority and financial responsibility for worker training should be concentrated -- the national, regional, sectoral or local level. In theory, there are arguments for, and against, almost any imaginable degree of centralization in who pays and who decides. For example, in the United States during the 1950's and 1960's, federal manpower programs proliferated to produce a confusing array of training efforts run by different agencies, for different clienteles, with different permutations of federal, state, and local funding and authority. The norm, however, was substantial federal funding but state or local implementation.

Whether national, regional, sectoral or local interests take the lead on the public-sector side, workforce investment involves at least four other players: Training providers, employers, organized labor, and individuals themselves. Defining their respective roles and responsibilities is a perennial issue in training policy. How are decision-making authority, control over resources, and the right to specify goals and define success allocated among these players? A workforce development system that ignores any one of these players would rapidly and dramatically fail. In practice, debates on the focus and structure of training programs always turn on questions of balance—how much, and how, to incorporate the interests of and the information commanded by each party.

But to better understand these practical debates, consider for a moment the impractical extremes as described in Donahue, Lynch and Whitehead (1999). Imagine first a simple-minded training system that relied only on the judgement and motives of individual trainees, with no role for employers or training providers, by providing vouchers or tax incentives for training and then calling it quits. There would clearly be some virtues associated with this model. Presumably the trainee has her own interests at heart, and is strongly motivated to choose the training that's right for her. She will try to avoid training in obsolete skills, or training providers that are ineffective or (unless her voucher is unlimited) wasteful. Yet this hypothetical training system has some obvious drawbacks. An individual trainee might not know what skills are in demand, or likely to be in demand in the future. She may have too little information to distinguish between effective and ineffective providers. So to the extent workforce policy puts individuals in control, government's job is to define eligibility, police the definition of "training," and ensure access to reliable information about the market for skills and the performance of training providers to help individuals make well-informed choices.

Next, imagine that employers hold the reins, and public training policy is limited to providing grants or tax incentives to subsidize workforce investments chosen by the private sector. The great advantage here is that employers tend to have privileged information about the demand for skills. They may also be able to provide training more efficiently by integrating it with their other operations, or procure training cheaply though hard bargaining with providers, in ways that individuals cannot. In addition some skills such as the ability to function as part of a workplace team may be hard to deliver outside the workplace. The downside of employer-centered training policy is that employers tend to use an unduly narrow calculus of value. Any rational employer will be unlikely to direct training resources to skills useful to other companies

but not to her own firm, or skills likely to be valuable two years hence but not currently needed by her company. She may also be tempted to use public resources to lighten her own training costs, by training the same kinds of people in the same kinds of skills as she would in any event, instead of training different people, or training them more extensively in more broadly marketable skills. So to the extent employers are in control, government's job is to try to ensure that public resources supplement, rather than substitute for, private resources. This means inducing or requiring employers to widen the boundaries around the labor pools from which they draw their workers and trainees, and to emphasize training in general skills that are portable across a wider array of employers instead of narrowly firm-specific skills.

Finally, imagine that providers monopolize control; the government promotes workforce investments by sending resources to schools, community-based organizations, and other sources of training and counts on them to do useful things with the money. This could be a simple and direct way to get training done, but it also has some fairly fundamental defects. Providers may do a bad job at developing skills, or they may do a good job developing the wrong skills. They may make decisions about which trainees to accept, which skills to concentrate on, and how long training should last based on their own convenience rather than the needs of employers or the interests of workers. So to the extent providers are at the center of workforce policy, government needs to have the data and the analytic capacity to distinguish between efficient and inefficient providers. And it needs to have the mandate, authority, enforcement tools, and inclination to require or induce providers to develop the skills the labor market demands.

As Donahue, Lynch and Whitehead (1999) discuss, the right allocation of discretion among employers, individuals, and providers depends in part on the goals of training policy. If aggregate economic growth is the central goal, for example, a heavy focus on employers might be best; their tight link to labor markets would be crucial, and substituting public for private resources might be tolerable, up to a point. If instead reducing poverty is the main goal, it may be better to direct resources to needy individuals, or to providers that specialize in serving such populations. But the right allocation also depends on the public sector's capacity to carry out the roles each focus requires. If government is very good at spotting and sanctioning inefficient providers, for example, the risks of a provider-centered approach diminish. If government is very bad at predicting what training firms would do in the absence of subsidies, the risks of a provider-centered approach increase.

With this overview of possible ways in which a country could distribute roles and responsibilities in the development and continuous improvement of its training system, I now turn to the more specific needs of the training system with regards to its capacity to develop skills for new entrants and incumbent workers.

New Entrants and initial training

Educational attainment has been growing around the world and theoretical developments in endogenous economic growth models have argued that investments in education can play a

very large role in a country's growth. But while there is increasing empirical evidence supporting the positive role of education in growth, not all education systems are the same [see box on Egypt]. In particular, different countries have pursued alternative strategies to ensure that their populations have increased access to education that both prepares individuals for initial employment, as well as subsequent jobs and broader citizenship skills. One of the consequences of increased educational attainment is that the time to full-time entry into the labor market of young people, especially in advanced industrialized countries has been delayed. In the United States where higher education is relatively expensive, many young people attend school while working making the distinction between school and work less sharp. For example, a third of young people enrolled in high school also work, almost two-thirds of those enrolled in 2-year colleges are employed, and almost one-half of those in 4-year colleges are employed. Over 15 percent of those in college (2 or 4-year college programs) are part time students, and of this group, the vast majority are working (84.4 percent) while attending college. So when we look at the transition from school to work in the U.S. we observe some students transiting from school to work, others engaged in both school and work for an extended period, and finally still others transiting from work back to school.

A second trend is the aging of the population in advanced industrialized countries, as well as in many middle income countries. One of the consequences of this is that the share of youths in the labor market has declined in many countries over the past 25 years. As an example of this trend, (and this is not one of the more extreme cases!) twenty years ago in the U.S. 50 percent of the unemployed were under 25 years of age while today only a bit more than a third of the unemployed are under the age of 25. By 2006 over 60 percent of the workforce in the United States will be 35 years or older. This change in the overall composition of the unemployed is perhaps one of the greatest differences between today's youth labor market and that of twenty years ago. The shift from a workforce composed of a large fraction of youth to one where the majority of workers are prime age has also generated a policy and resource shift in some countries from focusing on ways in which training could help the "youth problem" to the role of training for displaced older workers.

In spite of these common trends, especially in advanced industrialized economies, there is significant variation across countries in terms of the basic preparation of youths as they enter the labor force. As Table 1 shows, there are large differences among countries at a relatively state of industrial development. For example, in Sweden only 3 percent of youth age 16-25 years of age have low literacy skills while in the U.S. almost one in four youths in this age range suffer from low literacy skills. It is interesting to note that those countries in Table 1 with the highest incidence of low literacy among youth are also much less likely to rely on establishing formal links between education and employment. Since we know that workers in the U.S. with less education are also less likely to obtain skills training from their employer (see Lynch 1992 and Lynch 1994), this creates a vicious circle for youth who enter the labor market poorly prepared.

In countries such as Germany where the education system has established a more formal link between school and employment through its vocational programs, almost 2/3rds of youth

enrol in vocational apprenticeship programs. As discussed in Lynch (1994), the German dual system of apprenticeship training is characterized by coinvestment in training by workers and firms, by codetermination of training program content by unions, employer associations, and the government, and by nationally recognized certification of skills on completion of training. As a result of these three components, German youths have experienced relatively low unemployment, high earnings, and as shown in Table 1, higher skills than in many other countries over the past two decades. Nevertheless, there is the constant challenge to an effective apprenticeship system that Germany is not immune from to ensure that sufficient places are offered by employers and that the occupations represented by the apprenticeship program are relevant for the current demands of the market place.

There have been alternative strategies followed by countries to equip young workers with the skills they need to face the changing labor market. As discussed in a recent OECD(a) paper (1999), those countries that have historically relied on vocational education to prepare youth for work have tried to find ways to continuously update the content of education so that youth are receiving relevant vocational education. In those countries with less emphasis on vocational education, there have been attempts to keep at risk youth in school longer. Part of this dropout prevention effort has included bringing work-based learning within schools to help motivate the learning process of at risk youths. Unfortunately when one examines the evaluation of programs targeted at unemployed and disadvantaged youths the results are mixed. In the U.S., with the important exceptions of residential youth programs such as Job Corps or CET in San Jose (see US. DOL 1995), the impact of programs for youth funded by the Job Training Partnership Act have had little impact on their subsequent employment or earnings. In the Nordic countries, however, there has been more success. The Nordic programs have not relied just on training rather they have provided a multitude of services to disadvantaged youths tailored to their specific needs but including remedial education and training, work experience (in part obtained through wage subsidies to employers who hired these youth), job-search assistance, and support for returning to formal education.

More generally, countries at all stages of economic development will need to constantly address the role of vocational education in the skills development of young workers. Some of the questions that will need to be addressed is to what extent should a country develop its vocational educational system? What is the role of vocational education -- to prepare a worker for the first job and leave subsequent skills training to employers? Or is vocational education a way to motivate students who have difficulty in relating to academic course material? How can a country increase the parity of status between those who pursue vocational education versus a more general academic track?

No matter what countries do, as we look forward to the next century it is clear that the transition of a young worker from formal education into the workplace will more complicated than in the past. It is also clear that learning will not stop the moment a student exits from the classroom. So perhaps some of the most important innovations in initial education is to ensure that is better linked to subsequent skills development that workers will need to acquire after the

enter the labor market.

One country that has devoted considerable resources to the skills development of youth as they make the transition from school to work is Denmark. Its system is particularly interesting because of the role that the social partners play in the design, implementation, evaluation and reform of the training system for youth as they make the transition into employment. As described in an OECD(b) (1999) note, standards are set in Denmark for approximately 90 occupational categories and then training regulations are developed for each of the 90 categories by a committee composed equally of representatives of management and labour under the general supervision of the Ministry of Education. The regulations are brief but specify the skill requirements for the occupation, how long the preparation must be, the program of study and what must be examined to determine if the person who has completed the training has met acceptable standards.

To enrol in this training a young person can contact an employer and then sign up with a business or technical college or contact a college and then find an employer. Business and technical colleges must by law consist of a majority made up of representatives of management and labour from local enterprises. At the end of the program there is an examination by a team consisting of a teacher, a representative of management, and a representative of labour. According to the OECD study, because the social partners develop the standards, and govern the institutions providing the training they feel they have ownership of the system which in turn increases their usage of the system and feedback into the system.

Some of the issues that remain in this system include the fact that when youth participate in the vocational training system the government contact is the Ministry of Education while when adults participate the government contact is the Ministry of Labor. There is no significant coordination across the two Ministries especially in the establishment of standards. There is also some discussion of identifying ways in which the training can be modularized and to maintain a parity of esteem for those who hold vocational qualifications with those who hold academic qualifications. The Danish system is a very expensive system but it has also tried to ensure that no one is left behind. As a result, school drop out rates are low and for those who do drop out of school great efforts are made to search out those youth and reinsert them into learning as quickly as possible; there is virtually no unemployment for youth under the age of 18 and little unemployment between the transition from school to work; and for those young Danes who do experience unemployment their spells are short.

Finally, the rise of the internet is sometimes touted as a potentially powerful tool to address many of the skills deficiencies of disadvantaged youth. The internet is “democratic” in the sense that it reacts to all in the same way. However, it would be a mistake to not recognize the role of social forces in information technology as in other institutions. Computers are not equally available, as advantaged families are much more likely to have computers at home than disadvantaged families. As a result, children from advantaged households become more proficient with the technology earlier than those from disadvantaged households. The same

inequality can occur in public access to computers. Schools and libraries in affluent communities (or countries) are much more likely to have computers than schools and libraries in less affluent areas.

Incumbent workers and life-long learning

Workplace training differs from other forms of human capital investment such as education and governmental training programs, since there are at least two parties in the training decision — the worker (who may or may not be represented by a union) and the firm. Firms who are concerned with the skills upgrading of their workforce are constantly facing two possible strategies — “make” the skills in-house or “buy” the skills from outside. In addition, skills such as team work may require employers to upgrade simultaneously groups of workers in order to ensure that the new skill generates the expected gains in productivity. As a result of this more complicated decision process firms may not provide as much training as they may wish in-house, especially general training. For example, if employee turnover is high firms may be reluctant to train workers in-house. If new skills are valuable to other employers firms run the risk of having a newly trained worker hired away by another employer. Therefore, investments in non-portable firm-specific training are more attractive investments to firms than more general training. In addition, smaller firms often face higher training costs per employee because they can not spread the training costs across a wider group of employees.

As surveyed very comprehensively in the ILO World Employment Report 1998-1999 there are many workers who have training needs once they exit the formal educational sector and enter the labor market. Workers with initially low levels of skills need to find ways to improve their skills to meet current market demand. Emerging markets need to find ways to ensure that the skill levels of their working population rise to meet the demands of growth [see box on Malaysia]. Skilled displaced workers need to find ways to acquire new skills if new technology, trade or the transition to a market economy have made their skills obsolete or in low demand.

Since the training investment for incumbent workers is two-sided, even if a worker wants and needs training, this is still no guarantee that they will actually be able to obtain it. We observe large variation across countries in the probability that a worker will actually receive training. For example, in Europe as shown in Chart 1, Swedish employees are approximately 7 times as likely as French employees to have participated in job training annually. This is in spite of the fact that initial skills of Swedish workers, as measured by the International Adult Literacy Survey, are considerably higher than in many other European countries.

A recent study by Leuven and Oosterbeek (1999) on demand and supply of training in Canada, the Netherlands, Switzerland and the U.S. found that one in five workers in the Netherlands reported that they were not receiving the training they needed, one in four in the U.S. reported they were under trained, almost 30 percent of workers reported insufficient training in Switzerland, and one third of Canadian workers responded that they were not obtaining sufficient workforce development training. In addition, as summarized in Lynch (1994) and WER 98-99,

workers typically less likely to receive employer sponsored training include women, minorities, and those employed in the informal sector.

One of the reasons why even excellent initial skills preparation is now no longer sufficient to meet the skills demands of employers is due to the expansion of new workplace practices such as team work, problem solving, total quality management systems, and job rotation. Lindbeck and Snower (1996), building on a large industrial relations and human resource management literature, argue that reorganization of firms from Tayloristic task-oriented production processes to customer-oriented teams has resulted in a breakdown of occupational barriers within companies. They predict that the movement to more horizontal work organizations with greater emphasis on cross-training will result in a labor market that is segmented into three parts -- an expanding flexible, "high performance workplace" where wages are rising; a contracting Tayloristic sector where wages are stagnant; and an expanding pool of jobless with longer durations of unemployment and lower re-employment wages. These three segments will not be necessarily industry or occupation specific.

As discussed in Lynch (1999) one of the implications of Lindbeck and Snower's model is that when researchers talk about a relative demand shift away from unskilled to skilled labor, skill may now also include the ability to be versatile and "learn how to learn". A worker could be "higher" skilled in the sense that s/he can do several semi-skilled jobs rather than a single higher specialized skill. This skill is presumably positively correlated with education, but there will certainly be variation within education groups in the ability of individuals to adapt to change. The concern is that older workers in particular may be the least versatile even given their education level and as a result end up in the latter two sectors of Lindbeck and Snower's model.

So how does participation in on-the-job training vary by age? Human capital theory would lead one to suspect that most OJT would be "front-loaded" in a worker's career so that there is enough time to recoup the costs of training. Chart 2 using data from the OECD International Adult Literacy Survey shows the probability of employed workers receiving training by age. What is striking about these figures is the lack of evidence of front loading of training in any of the countries examined.

As second reason given for increased demand for continuous learning of workers is the rapid rate of technological change. Workers may find themselves displaced from both skilled and unskilled jobs due to technological change. But one group potentially particularly vulnerable to technological change is older workers. If new technology increases the depreciation rate of both physical and human capital due to obsolescence, and the payoff period to investments in human capital is shortened, older workers may become more marginalized in the workforce. This is particularly of concern in advanced industrialized economies that are facing rapidly aging workforces over the next en years. In an increasingly skills-driven economy a key issue is the extent to which the growing number of mid and late-career workers are able to refresh, expand and redeploy their job skills. Human capital theory does not provide an unambiguous prediction of the effect of technological change on the optimal level of on-the-job training. As discussed by

Bartel and Sicherman (1993), technological change may be positively or negatively correlated with training. The eventual sign will be determined by the degree of complementarity or substitutability between schooling and training and the impact of technological change on the marginal returns to training. In addition, new technologies themselves may lower the cost of providing training to workers. With marginal costs of training potentially being as low as zero, smaller firms may be able to overcome one of the obstacles they face in investing in their employees.

Mincer and Higuchi (1988), in an interesting comparison of human capital investments in the U.S. and Japan, argue that while increasingly rapid technological change results in less human capital investment at any point in time, more investments in training may be repeated over a worker's life. In other words, obsolescence of human capital does not necessarily imply the obsolescence of workers. Using the example of Japanese workplace practices of flexibility and job rotation they show that potential obsolescence is overcome without having to change who is employed within a firm. As they state, "If the new cycle of training builds on the partially obsolete previous cycle and both contain elements of firm specificity, then skills adjustments are accomplished at lesser cost using the existing workforce rather than new hires. So experienced older workers could in principle actually lower training costs for a firm even in a world of rapid technological changes. This seems to work, however, only in a world of relatively high initial skills and "high performance" workplace systems.

Information technology could in principal be a powerful tool in helping workers acquire the skills to keep up with changes in technology. For small firms the development of distance learning may go some way to lowering the marginal costs of training workers much lower. Computer based learning can also potentially address a second deficit that many unskilled workers face -- the time deficit. In the face of falling hourly wages many unskilled workers have taken on second jobs or increased their hours of work to try to maintain standards of living. What this means though is that they have little time outside of work to engage in new learning activities. For women, this can be especially difficult as many finish the paid work day and return home to start the "second shift". But a pressing policy issue seems to be how to get unskilled workers who are not computer literate sufficiently "skilled" so that they can take advantage of additional training through the internet. At the moment information technology is more likely to play a role in skill development along the skill ladder rather than basic skill development which will still remain more person-to-person intensive.

Targeting Vulnerable workers for workforce skills development

As discussed earlier in this paper and more extensively in [WER 98-99](#), not all workers are equally likely to receive training. Countries have tried a variety of different strategies to try to stimulate additional investment in skills training, especially for disadvantaged and vulnerable workers. Since many of these workers are employed in micro, small or medium sized firms some of these training incentives have also tried to target these employers in particular [see for

example box on Mexico].

Some of the alternative methods that have been used to stimulate and finance additional training include training levies in countries such as France, Korea, Australia, Quebec, and Hungary. Training levies are potentially useful in that they can set a level playing field across employers in terms of the investment that they make in their employees. This would overcome concerns about poaching of trained workers and it theory raise the overall level of training. However, if the rate is set “too high” employers may protest calling it an unfunded mandate and a burden especially on smaller employers who are struggling to establish their businesses. If the rate is set too low then it will do little to affect the overall level of workforce development investments. In practice the tax can be manipulated and quickly revert to an exercise in creative accounting or in the case of France, employer provided training is still more likely to be acquired by skilled workers in large firms (see Lynch 1994).

Another strategy that some unions have pursued at the national level in Europe (for example Denmark and the Netherlands) and at the sectoral level in the U.S. (in telecommunications and automotive) is to establish training funds through the collective bargaining process. This has had a positive impact on the training of workers, especially those covered by collective bargaining agreements. But in those countries with a substantial informal sector or low union coverage this strategy will have a limited impact.

In the U.S. the strategy has been to focus on the environment rather than legislating compulsory spending on training [see box on U.S.]. At the same time, federal training policy has devolved to the state and local level. The mixed success of the previous Job training Partnership Act to meet the needs of disadvantaged workers has contributed to the recent reform of the federal training system. Even those training programs under the old regime that showed large gains in post training income and employment had only had a modest effect on the capacity of participants to achieve self-sufficiency (see Lynch 1999 and US DOL 1995). Given the small amounts that were invested in many federally sponsored training programs this is perhaps not so surprising. But states have increased their spending on workforce development dramatically during the current recovery. Ten states have now established training funds that are financed by a training tax associated with employers unemployment insurance tax payments. Employers and other appropriate groups can then apply to these funds for training targeted at employed but “at risk” workers. Many states have also tried to encourage greater collaboration between employers and community colleges to develop not for credit training modules for non traditional students and employers.

Most industrialized economies allow for immediate and full tax deductibility of training expenses incurred by firms. But firms’ financial statements provide little or no indication of the value of these knowledge investments for the bottom line of the company (see O’Connor 1998). Many countries have also tried using targeted tax incentives directed at smaller firms or specific categories of workers. Tax incentives might work in the formal sector but in the informal sector they will have little impact. Depending on the way in which the tax incentive is structured firms

may or may not take advantage of it. Many small firms face constant cash flow problems. Receiving a tax rebate 12 months after incurring an expensive may be too little, too late. Finally, some European countries have legislation that provides workers the right to paid training leave. The advantage of this approach is that workers can choose to take the leave and select the course they feel would be most relevant for their skill development. However, if a firm needs to raise skills for a group of workers (e.g. to improve team skills and problem solving) this training leave policy may not be the most appropriate mechanism for ensuring that this training happens.

Conclusion

Education and training are not magic elixirs for all groups of vulnerable workers [see box on Egypt]. For many low growth developing countries training for training's sake is a luxury they can ill afford. If there are no jobs for workers to enter one quickly wonders "training for what?". As discussed in the WER 98-99, if training is implemented with little attention to the necessary complementary inputs it can result in little return for training investments. But there do seem to be some conditions necessary for ensuring that investments in training provide expected returns. At the systems level those countries that have established codetermination, coinvestment, and certification. But in an era of increased scrutiny of budget expenditures in advanced industrialized economies and shrinking resources in developing countries it is also critical to include in any training system an ongoing evaluation system to ensure that scarce resources are being expended most efficiently to meet public policy goals.

Furthermore, although the goals of publicly funded and privately funded training programs are not always the same (e.g. publicly funded training are typically focused on solving market failures in the provision of more general training and reduction of social exclusion and inequality while private sector training programs are typically more focused on up-skilling workers within a firm to raise productivity within the firm) there are common features in the best practice of the delivery of training across these two sectors. There needs to be a detailed 'needs' analysis completed before any training intervention occurs. For the public sector this needs analysis would include an examination of the local labor market so that training is targeted at those jobs with the greatest potential to expand but provide career advancement. One of the better ways to ensure this is the establishment of partnerships between local employers, community based organizations, and training and education providers so that the training programs are responsive to the increasing rate of change in technology and demand. For the private sector this needs analysis identifies what are the skills currently lacking in the firm and the best way to meet those needs — hire new skilled workers or retrain current employees in specific areas of deficiency.

The second step in the successful delivery of training is the design of the training program. The public sector needs to decide how much of the design it should itself versus allowing more competition among public and private vendors to design the program. One risk with only relying on the private sector to design training programs is that the programs will be designed to meet areas of expertise of the private vendor rather than the specific needs of the

targeted training group. The next step is implementation of the training program. The public sector needs to decide to what degree it will rely on the private sector to bid on training programs that the government sector may have designed. In the private sector, employers need to decide to what degree they will conduct training in-house, on-the-job, off-the-job, with outside vendors, and how to time the training to minimize disruption to production.

Finally, there needs to be evaluation and feedback into the needs analysis of the training. Without evaluation the public sector can not identify excellent performers and those who are not meeting expectations. In the private sector (as in the public sector) evaluation will be critical in any cost-benefit analysis of training investments. Evaluation that is done without a process to incorporate those results back into the training system will be an exercise in random data collection.

From a public policy perspective it is important to realize that there are numerous barriers to reform of training and education institutions to ensure that they are able to meet the new demands of technology and global competition and at the same time reduce social exclusion. For example, it is important to recognize that not all education and training institutions may be willing to surrender their control or influence in a country's training strategy. It is also important to ensure that the state is not funding what private sector would have done anyway. At the same time, as countries develop more partnerships between the government and the private sector to improve skills development it is important to find ways to reach out to those groups of workers that have been historically under-served.

The establishment of a set of performance measures is critical for the success of any training system. Without better measurement of the amount and quality of training being provided in the formal and informal sectors of the economy it is difficult to evaluate the effectiveness of training. With poor data, public policy can end up being driven by what is easy to measure rather than what is needed to be measured. It also makes it much more difficult to create a training system that is sufficiently flexible to adopt to changes in the workplace so that it continues to meet the needs of workers and employers.

What might be some of the performance measures that should be tracked in a training system? As part of the reform process in the United States of its training system a set of measures of success for workforce development has been developed¹. Some of these measures include: the percent of people who got a job after receiving workforce development services; starting wage and annual earnings gain; employment retention; post employment ratio of self-sufficiency; basic skills attainment; occupational skills attainment; customer satisfaction; reduction of welfare payments as a result of obtaining employment through the workforce development system; reduction of unemployment duration; total annual increase in earnings and

¹Employment and Training Administration, U.S. Department of Labor, "Workforce Development Performance Measures", URL:<http://www.wdsc.org/transition/measure/append-d.htm>.

decrease in welfare for all who received workforce development assistance divided by the total cost of the program; time to positive outcome by service; and the percent of people who need specific workforce development assistance who actually receive it (including participation equity rate). I would add to this list the improvements to business productivity associated with training. But any system of performance standards should be created so that there is an effective feedback loop that ensures continuous improvement in the training system. One of the few things we can be sure of today is that the skill needs of today will not be the same in ten years time. But thinking about the evaluation of training programs in the context of continuous improvement helps ensure that performance measures become a tool for system improvement rather than just a reporting tool used for system destruction. In the private sector, high performance workplaces succeed by evaluating and improving everything they do. There is no reason why government sponsored training programs should not do the same.

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Egypt: In spite of substantial investments in education in Egypt over the last 30 years, the expected education-led growth for the economy has not materialized and large income inequality persists. There are several reasons discussed in a recent study by Birdsall and O'Connell (1999) as to why the expected benefits of expansion of education have not occurred in Egypt. First, the quality of schooling is low and has probably fallen over the last 20 years. In addition, low demand for skilled workers in Egypt has meant that educational expansion has not resulted in higher productivity and income for educated workers. The low demand for skilled workers is due in part to the fact that there are many distortions in the economy such as trade protection, large subsidies for owners of capital, and high payroll taxes and labor regulations. But an equally important factor was a policy (in place until 1990) to guarantee public sector employment for all graduates from secondary and post-secondary institutions. As Egypt reforms its educational institutions to improve quality and accessibility to primary and secondary education, and introduces market reforms to address these distortions vocational education and training should play an important role. In order to ensure that adult workers without education have an opportunity to compete in a more market driven economy there will need to be opportunities for workers to obtain market relevant skills. At the same time, educated public sector workers who lose their jobs due to restructuring of government employment will need retraining to ensure that they can take advantages of new opportunities in the private sector.

Mexico: Micro, small and medium-sized firms account for over 70 percent of employment in Mexico and have historically had low productivity. Part of this low productivity growth has been attributed to poor training in this sector. As described in Gill and Dar (1999) the Mexican government has attempted to address this deficiency with the Total Quality and Modernization Program (CIMO) which provides technical and financial assistance to MSMEs. In an evaluation of the program it appeared that the training assistance raised productivity of participating firms but not wages of workers within those firms. More generally, Mexico continues to face relatively poor preparation of workers because of low schooling levels, and poor quality of primary and secondary education. There is also large variation in the quality of training provided in training institutions and little private sector investment in worker training. As a result recent reforms have focused on improving the access and quality of primary education, the establishment of a national system of labor competency standards, the promotion of private participation in the design and implementation of training, and the establishment of an information system to monitor and evaluate training programs.

Source: Minowa (1999)

South Africa: The Department of labor, the national Training Board, industrial training boards, employers, and training providers are all active participants in South Africa's training system. The Department of Labor's focus in training is on programs for the unemployed. This is delivered in large part through nine Regional Training Centers. Since these centers have relied primarily on the government for funding their resources are very much driven by the severe budget constraints facing the DOL. Placement rates have been low and involvement with employers limited. Linkages between the social partners and training have occurred instead in the National Training Board, the National Economic Development and Labor Council, NEDLAC, and the Industrial Training Boards. Fifty percent of the National training Board is drawn from training providers, community organizations and special interest groups with the remainder drawn from business, labor and government. The NEDLAC stakeholders -- unions, business and government, have equal membership and have assumed the leadership role in reforming the financing and management of the training system. Finally, there are 27 Industrial Training Boards that establish standards and accreditation of training providers and can impose a training levy. Only about of fifth of employees in the formal sector (about 2/3rds of the labor force is in the formal sector) are covered by the ITBs and only a third of industries participate. As South Africa has reformed its training system it has tried to promote innovation within existing institutions rather than the establishment of new. But according to the joint ILO-World Bank study it has been difficult to reach consensus given the conflicting interests of all the participates in the training reform process. Funding continues to be a challenge but the government plans to impose a national levy-grant scheme to fund industry based training and at the same time promote more competition in the provision of public provided training for the unemployed.

Source: Ziderman and Adams (1999)

Malaysia — Multi corporate training -- Penang Skills Development Centre.

Supported by 24 companies including Advanced Micro Systems, Hewlett Packard, Intel, Motorola, National Semiconductors and Sony Electronics this center was established in 1989 to raise skills levels of local employees to meet the needs of PSDC's members. The center is self-sufficient financially and has been profitable since its first course. It offers courses for incumbent workers (both skilled and semi-skilled) to upgrade skills to stay current with the latest technology. About twenty percent of the trainees are school leavers who use the center to acquire more occupationally specific skills to improve their employment opportunities. There is extensive industry involvement at all levels. Course content is directly linked to industrial needs in the region and trainers in the center often come from industry. There is coinvestment in that students pay course fees or receive industry sponsorship (this provides most of the revenues to cover costs), member companies pay a one time fee (approx. US\$8,000) plus provide equipment and trainers, nonmembers provide equipment and supplies, and the government provides some training staff and funding for operating costs. Those served by the center are typically under the age of 30, earn between US\$360 - US\$600 a month, and 68% are male. Finally the involvement of multi national companies in the training program facilitates technology transfer from multinationals to local companies.

Source: C. Corbitt (1999)

Hungary: The role of the state and private sector in the provision of training has changed greatly over the past decade. As described in Godfrey (1999) many large state centers have been closed or privatized and the remaining centers have been set up as five regional training centers that compete with private training institutions for contracts for retraining the unemployed. These government contracts are financed by a 1.5% training levy imposed on employers. But with the reform of large state enterprises company provided training has collapsed. One of the current policy issues is a lack of consensus on how to further develop and reform the training system. The Labor Ministry favors vocational education, the Education Ministry and local governments favor general education, and employers want a dual training system. There is no clear accountability that has led to inertia in the reform process. In addition there is not a clear set of standards or accreditation or quality control for training programs. As a result Hungary is in the process of developing a performance management system for its training programs.

Source: Godfrey (1999)

The United States: The U.S. is currently launching a major reform of its government funded workforce development system with the recent passage of the Workforce Investment Act. One of the institutional changes the Act is trying to stimulate is how to make customer choice and competition among training providers a more central feature of the US training system. The implementation guide to the Act declares that henceforth, training providers “will have to deliver value to their customers, or risk losing them. With individuals making their choices based on past performance, ineffective training providers will not survive.” Specifically, the guide directs that with “limited exceptions, training services will be provided through the use of Individual Training Accounts.” These accounts can be of any size a state or locality chooses to make available, and can take on virtually any logistical form, from a paper voucher, to a personal allotment within the government’s accounting system, to an electronic card. The vision is that individuals can and will make good choices for themselves, and in the process enforce market discipline on training providers.

There are a number of significant assumptions built into this vision. One is that competition among training suppliers will have the benign effects on efficiency and responsiveness that theory predicts—and that we usually see, in practice, when it comes to competition among the suppliers of computers or cheeseburgers. Another is that individuals can be trusted to make good decisions for themselves, if given good information. Finally it is assumed that individuals will have the kind of information about labor-market trends and alternative training providers that is a prerequisite to wise choice. But some commentators are deeply skeptical that the average American or (especially) the disadvantaged workers and welfare recipients with first claims on training resources are competent to make reasonable choices about which skills to acquire and where to acquire them. Others doubt that competition among training providers is a very good instrument for improving performance, because many providers are not motivated by money in the simple ways the competitive model requires or because there are not enough serious rivals in most places at most times to make competition meaningful. And even the most avid supporter of choice and competition would concede that good information on skill demands and providers’ performance is essential, and that in the absence of reliable and accessible information the case for market discipline is seriously weakened, or collapses altogether.

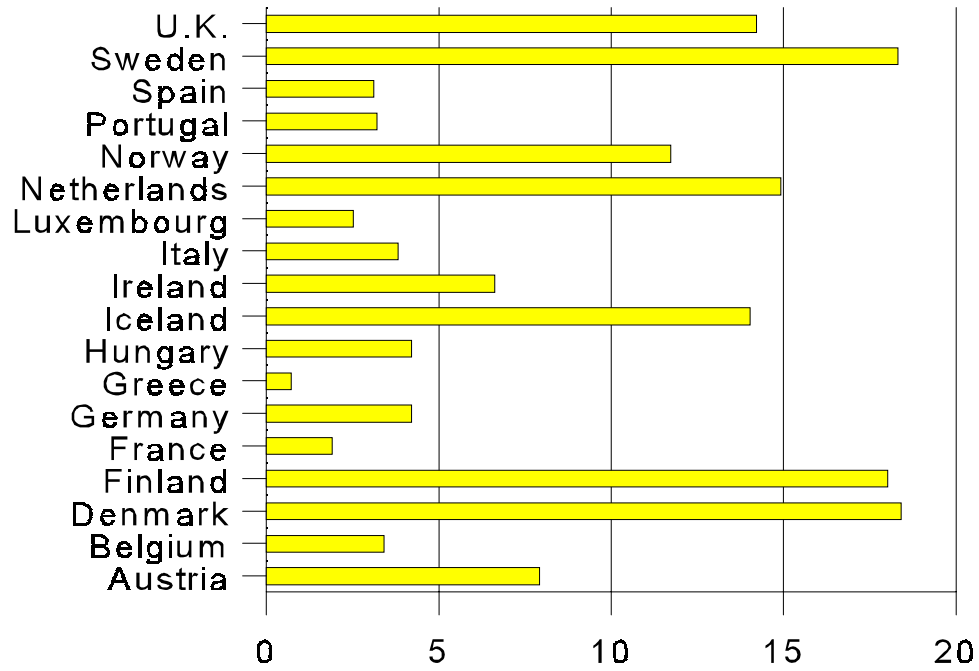
Source: Donahue, Lynch and Whitehead (1999).

Table 1: Percentage of 16-25 year olds with low literacy skills

Sweden	3.1%
Germany	5.2
Belgium	5.8
Netherlands	6.1
Switzerland (German speaking)	7.1
Switzerland (French speaking)	8.7
Australia	9.7
Canada	10.4
Ireland	17
United Kingdom	17.8
New Zealand	18.3
United States	24.7

Source: OECD (1997) Literacy Skills for the Knowledge Society

Chart 1: Participation Rate in Job Training in Europe



Source: EUROSTAT as reported in OECD Employment Outlook 1999

Chart 2: ANY TRAINING since 1993?



Source: OECD Adult Literacy Survey, Employed Individuals, any training since 1993

Note: Data from Germany are not included since they were not comparable to other surveys -- see footnote 10 IALS report, p. 69.