Is There a Case for Government Intervention in Training?

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by

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Abstract

The paper takes a fresh look at the rationale for state-financed training by going through the classic reasons for Government intervention. The author notes an unwarranted similarity between training and general education, and finds only a weak case for Government-financed training. Such similarity makes no distinction as to who appropriates the benefits of the two types of investments. Thus the problem, from a policy viewpoint, is not so much how to advance public involvement in this area, as to how to design an orderly withdrawal of the Government from this type of interventions. This may not be an easy task, given deeply entrenched positions in the field.
Introduction

Let me first make an introductory remark, which I hope will serve to anticipate my argument. We are in front of an important subject: an adequate level of training has a significant effect on economic efficiency and growth, and therefore we must be careful that this level of training is forthcoming. I think that the economics profession has been instrumental in emphasizing this point and must be credited for it. However, we may also be responsible for having drawn an unwarranted similarity between training and general education, which has probably led to an excessive Government intervention in this area.

What Do We Mean by "Under Investment in Training"?

The rationale for Government intervention is based on the presumed under investment in training that the market generates. It is therefore important, to begin with, that we know what we mean when we use this concept. Can a practical meaning be given to the concept "under investment in training?" Naturally, the relevant thing here is to be clear about the reference that we have in mind: under investment with respect to what.

One possibility would be to define the shortage of training with respect to optimal capacity, meaning that the capacity at which the net marginal product of capital equals the growth rate of the economy. But even if taken approximately, with this reference we are likely to find, both in developed and in developing countries, under investment not only in training but in many other fields. This approach in fact widens the problem from one of insufficient training to another of resource availability in general, from a problem of efficiency to a problem of growth. There is
of course nothing wrong with this. However, the question then becomes more complex, as it requires answers concerning not only training but many other aspects of economic growth, and the justification for Government intervention need not necessarily be based on market failure but on the desire of accelerating growth.

Another possible reference is existing capacity; that is, the amount of training that, given relative factor prices, is needed for the existing stock of capital. This seems to me to be nearer than the previous approach to what economists actually think when they identify situations of insufficient training, but then I doubt that the extent of training that the market generates for this existing capacity is so deficient as we seem to think. Why should training, which after all is a factor of production, be used in proportions so distant from those dictated by relative prices? Or to put it another way, why should decisions concerning training be so different from decisions concerning other inputs of production?

It may be argued that there is yet another reference that makes the concept of under investment operative, and one that enjoys a wide degree of acceptance. Training can be deemed insufficient if its net social return is greater than that of alternative investment opportunities. Indeed, this seems to have been the criteria behind many of the economists recommendations for new investments. But in the light of what I have just said, I think we should pause somewhat before using too mechanically these calculations as guides for investment decisions. Rate of return calculations are conditional on the existing stock of capital (or, indeed, the existing stock of any other input). Who ensures that these returns will hold for discrete movements in the
availability of training, which is what is normally involved in decisions concerning public
provision? Naturally, this is what happens with any movement down the short run demand curve
for a factor, and it could be said that the only thing we need to be careful about is that the
movement is not unreasonably large. This is correct. What I am arguing is that possibly the
demand curve for training is nearly vertical for a given stock of capital; more technically, that the
elasticity of substitution between training and capital is very low. If this is the case, and I think
some research may be needed here, then rates of return must be used with care as guides for
investment decisions, particularly in developing countries where capital availability may be
questionable. At the margin, rates of return can be a very useful instrument for identifying present
surpluses and shortages; but it is doubtful, even if used in conjunction with other tools, that they
can be of help in anticipating particular future training needs.

The conclusion on this first point is that the concept of under investment has been applied
in a perhaps excessively undifferentiated manner to both problems of efficiency and problems of
growth. This is not very useful because the two problems are essentially different, and because
the case for Government intervention in each of them has to be based on different considerations.
Let me first review the rationale for Government intervention in a static context (that is, for a
given capacity), and then consider the argument for Government intervention in a situation of
growth.
The Rationale for Government Intervention

If the presumption about the low elasticity of substitution between training and capital is correct, then a situation in which the market fails is potentially damaging because it could lead to under investment not only in training but also in capital. It is therefore important to review the reasons that have been normally put forward to justify Government intervention. I follow here the discussion by Middleton, Ziderman and Adams in their recent work on vocational education and training in developing countries (Middleton, Ziderman and Adams, 1993).

Externalities

The traditional justification for Government intervention in the field of general education has been based on the intangible external effects generated by an educated population and the impossibility that these effects are taken into account in individual decisions. I think we are all agreed that this argument does not apply with the same force to training, because in this case benefits can be appropriated by individual workers and employers to a much larger extent than in the case of education, and will therefore be taken into account by the market.

Other effects of training, such as improved chances of attaining macroeconomic goals, increased flexibility to adapt to structural changes, or avoidance of shortages in growing industries, cannot be characterized strictly as external. If the costs and benefits of training are adequately taken into account in individual decisions, these other effects should follow as market consequences.
Market Imperfections

The second justification for Government intervention has to do with market imperfections. The existence of minimum wage legislation is usually put forward as a circumstance that may prevent general training from being provided by employers, due to the impossibility of charging the worker with the cost of such training, and that may therefore justify Government intervention if the initial distortion cannot be removed. This second-best type of argument is correct, but its practical relevance may have been exaggerated. First, on the job training will rarely be only general; normally, general and specific training will go hand in hand and the specific component will be by far the largest. If this is the case, the incidence of minimum wage legislation is clearly reduced. Second, even in cases in which, despite the existence of specific training, the constraint imposed by minimum wages is binding, workers and employers may find ways of circumventing this constraint through agreements on the worker permanence in the firm or on future wages.

The problem remains, however, that in some cases minimum wages may be too high to allow for the general component of training, or that agreements on future permanence and wages may be legally unfeasible. In such cases, Government intervention may be justified, even if only to undo the distortionary effects of previous Government actions.

In many countries, and as a consequence of technological progress, there seems to have been in the recent past a significant fall in the demand for unskilled relative to skilled labor. If due, to legislation, relative wages fall less than what would be needed to absorb the excess of unskilled workers, then there may also be a case for Government intervention. As Johnson and
Layard (1986) show, if unskilled workers are unemployed as a result of this rigidity in relative wages, the social return to training of unskilled workers (the marginal product of skilled labor - or even more if there is complementarity between the two types of labor) may clearly exceed the private return (the difference between skilled and unskilled wages after adjusting for the probability of unemployment). But then again, one has to be sure that a shortage of skilled labor exists. If not, the social returns would be much less than the marginal product of skilled labor, as training would only help to put unskilled workers in a better position in the queue for skilled jobs.

**Weak Enterprise Training Capacity**

A third argument for Government intervention is the weak capacity to train that small firms may have. Here again, the need for public intervention may be not as acute, or at least not as direct, as sometimes thought. *A priori* there is no obvious relationship between firm size and training capacity. In the past, complex trades were taught by masters in very small shops. Also, the training needs of small firms will tend to be small as well. However, it is true that scale economies go against small firms as far as their capacity to provide training at a reasonable cost is concerned. Is in this case Government intervention justified?

Before answering this question we should consider two possibilities. One is that for some types of training the market may provide the needed supply. This will happen when the training in question has a significant amount of general components and when the set up and running costs of the training centers are not high (computing, accountancy, etc.). Another is that, when the type of training considered has components which are specific to the market but general to a given industry, cooperative agreements between firms in that industry may result in organization
arrangements that significantly reduce the unitary cost of training. In these two cases, which surely cover a wide range of the situations in which small firms cannot provide the appropriate amount of training, Government intervention would still not be needed.

In my opinion, the second of the situations just described is the one in which, due essentially to problems of information, the market is more likely to fail. If this is the case, the Government may have a role in facilitating this information and in promoting the creation of this type of cooperative solutions. But this would only be justified inasmuch as the firms had not previously arrived by themselves at the same solution.

**Equity**

The final argument in favor of Government intervention is equity. I think that, in the area of training, this argument is weak. It is particularly so if by equity we mean the improvement of the employment chances of disadvantaged groups. With a low elasticity of substitution between training and capital, it will be very ineffective to put more trained people into the market if the capital with which these trained people ought to work is not there.

A more subtle equity argument is that by subsidizing or directly providing training, the Government compensates for the significant subsidies given to people that go on to secondary and university education. But you can only really compensate if the instrument you choose for that purpose is effective. And if the previous argument is correct, this is likely not to be the case with publicly provided training. As for subsidies to privately provided training, the most likely outcome is that the final beneficiary of the subsidy will not be the worker, who in principle is the
agent that wants to be compensated with respect to his counterparts in secondary and university education, but the employer, who in the normal course of events would have anyway provided the training.

To summarize: the theoretical argument in favor of Government intervention to redress situations of under investment in training is rather weak, because it is not clear that training is insufficient given the capacity determined by the existing stock of capital. There may be specific circumstances, particularly the presence of legislation that reduces the flexibility of relative wages and the case of high unitary costs of training for small firms, that may justify Government intervention. But, in general, the largely specific nature of training, and the possibility that in principle benefits and costs can be adequately assigned, lends support to the argument that the market generates outcomes in which the stock of capital is combined with the right amount of training.

**Manpower Policies**

The discussion so far has had little to say about the case for Government intervention to provide training in a growing economy in anticipation of future needs; and yet, the market may generate the right amount of training for existing capacity, but it may fail to bring about the optimal level of capacity. Therefore, it is also necessary to review the arguments for public intervention in a context of growth, and this takes us right into the area of manpower planning.
The crucial question here is whether the Government has any obvious advantage over the market in anticipating the future manpower needs of the economy. In my opinion it has not. The Government, particularly in developing countries, has an important role to play in creating the adequate market conditions for growth, but this is something quite different from anticipating future skill demands and from promoting, or actually providing, the corresponding training needs.

If it could be established that such an advantage exists, then the case for Government intervention would be overwhelming. Indeed, the case would be heavily inclined in favor of Government intervention not only as far as training is concerned, but for any type of investment decision. We know, however, that in general it is difficult to argue, even in developing countries with weak and incipient industrial sectors, that the Government is better placed than the market to undertake particular investment decisions. Information may on occasions be more readily available to the Government than to the private sector, but this is rarely sufficient to justify active investment decisions by the public sector. The best public economic strategy to promote growth consists of effectively enforcing a reasonable and transparent legal framework, removing market distortions, ensuring macroeconomic stability and providing an adequate level of public infrastructures and general education.

I would say that among economists there is a fairly wide agreement on this. In the field of training, the discredit of the manpower requirements forecasting technique could be seen as a consequence of this position. The usefulness of this technique is surely questionable, but not only, or even not mainly, for the reasons usually put forward. The assumption of a fixed relationship
between the foreseen future industrial structure and labor of a given quality is difficult to accept, but even more unacceptable is the presumption that we have the means to actually forecast this future industrial structure.

This is relevant because the problems that invalidate the manpower requirements forecasting technique, may also be present in some of the proposed substitutes for it. Middleton and his collaborators, in the work referred to above, suggest that a better approach is one that employs labor market analysis to identify and interpret relative movements in wages and employment as signals of shortages or surpluses of particular skills and trades. There is of course nothing wrong with employing more often rigorous labor market analysis. This will surely help us to understand better how this market works in reality and to explain observed phenomena. However, I do not think that this type of analysis, nor indeed any type of economic analysis applied to any type of market, can tell us what the future will be.

Therefore, while completely in favor of substituting labor market analysis for manpower forecasting techniques, I am very skeptical about using the former approach for purposes for which it was never designed. The results of this analysis should be disseminated through the market and, to the extent that signals of shortages and surpluses are uncovered, private economic agents will act upon them. Here the market failure, if any, that would justify Government intervention, appears in the obtention and dissemination of information on how labor markets work and on what the corresponding trends are; not, in my view, in the capacity of private agents to act upon this information.
This also has consequences as to the form in which the results of these analyses are presented. In the past, all too often, as Middleton and his collaborators point out, the conclusions of manpower forecasting exercises have been presented as near certainties, mainly to justify public investments on training provision. This error should not be repeated with the results of labor market analyses, particularly if this information is intended for the private sector. They should be presented as useful for the purpose of enhancing the understanding of how reality works, not for forecasting the future. If private agents want to act upon these results, it has to be at their own risk. This may appear as a much more modest approach than manpower forecasting techniques, but I have no doubt that it would lead to better investment decisions.

Policy Implications

What policy implications can be derived from this review of the rationale for Government intervention? The general implication, I think, is one of caution. The case for Government intervention in the finance or provision of training, both for a given existing capacity and for a growing economy, is weak. Thus, extreme care should be taken before deciding on public actions in this field. Only when price distortions, like minimum wage legislation, or lack of cooperative arrangements to profit from economies of scale, prevent the right amount of training being offered by employers, may Government intervention be justified. Even in those cases, public action should only be taken after ascertaining that the market has not found by itself ways of giving an adequate answer, and that the benefits of this action are likely to cover the corresponding costs. The provision of the right amount and type of training in a growing economy, on the other hand,
is a particularly complex and difficult task, which for its efficacy should involve many other interrelated actions, and for which the Government does not have any obvious advantage over the market.

This is all that would need to be said on the question of policy, were we in a situation in which Government intervention in training was first considered. Unfortunately, things are very different. Publicly financed and publicly provided training seem to be the rule rather than the exception in practically all countries, irrespective of their stage of development. This has meant not only the investment of a significant amount of taxpayers money, but also the creation of fairly complex administrative bodies (in many instances involving representatives of workers and employers), which not surprisingly have developed strong interests in the survival of this type of arrangements. Despite the fact that most empirical evaluations of public intervention in training tend to be negative, thus confirming the substance of the argument here developed, they seem to have had little effect on the decisions of particular Governments, although they are beginning to influence the stand adopted by international organizations such as the World Bank.

Thus the problem, from the policy point of view, is not so much how to advance public involvement in this area, as to how to design an ordered withdrawal of the Government from this type of investments. For the reasons just given, this may not be easy. To undertake such a policy, Governments will have to question their own previously defended ideas, deeply entrenched in all layers of society. The problem is that Government intervention in training has been based on the same arguments that have justified the public provision of general education. As a result, the
public makes little or no distinction between general education and training, when we know that
the nature of these two investments and the possibility of individually appropriating their
respective social benefits are not equal.

It is impossible to give general prescriptions. Policies will have to vary from country to
country depending on their specific circumstances and on the characteristics of their publicly
subsidized or provided training. In some countries, and particularly for subsidies, public
intervention may be found to be cost effective and justified, particularly when, together with
unemployed unskilled workers, there exists a clear shortage of skilled labor, or when there is
evidence that cooperative arrangements that the market fails to generate may lower the unitary
costs of training for small firms. In others, mainly in areas of publicly provided pre employment
training, the evaluation may be totally negative as far as the objectives usually expected from
training, but justified as a form of income maintenance for unemployed workers; then the issue
will be whether this objective can or cannot be obtained at a lower cost. Yet in other cases,
reform will involve the questioning of powerful organizations run by workers and employers
representatives, with control over significant amounts of resources from payroll taxes, and with
the public opinion on their side. This will pose politically difficult problems that not all
Governments will be prepared to tackle.

Conclusion

Let me make a final consideration. I have been rather critical with Government
intervention in training because I think that a solid case for it cannot be found, and that the
resources spent on this intervention have socially worthwhile alternative uses. This should not be interpreted as meaning that training is not an important investment for efficiency and economic growth. It is important and, to a larger extent than usually thought, it is also, I think, efficiently provided by the market.
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