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# Poverty Alleviation and Social Safety Net Schemes for Economies in Transition

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Abstract

Inspired by the current Polish economic restructuring program, this paper attempts to develop a general income support scheme that could serve as a model to alleviate poverty in developed economies in the transitional phase. The proposed scheme has the advantage that no part of the poor population is omitted from eligibility for support sufficient to remove them from poverty. The concept of the simplified model is protection against poverty through income maintenance that is conditional upon fulfillment of forward-looking requirements such as workfare, training or job search. Further, the scheme considers methods whereby limited national resources can be managed by official policies that combine into a coherent, cost-effective package, an optimal mix of income guarantee levels and incentive effects.

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## I. Introduction

In most industrialized countries, the government plays a major role in protecting individuals and families from extreme poverty by providing some type of minimum income guarantee to those unable to support themselves. For example, provision is usually made for such groups as the elderly, children, the disabled and sick, and single parent families. In addition, income support is usually rendered to those who are temporarily unemployed.

The aim of this paper is to present a general safety net scheme 1/ that could be applied to developed economies in transition from planned to market-oriented systems. It considers the best method by which limited resources can be used to ensure that no individual's income falls below a specified minimum level, which may be defined as the 'poverty line'. 2/ Although much research has been conducted on various components of income maintenance programs, little attention has been given to the question of how to combine the policies into a coherent package with an optimal mix of income guarantee levels and incentive effects.

The paper is arranged as follows. The remainder of this section will outline the scope of the problem and discuss the difficulties involved in designing an income maintenance program. Section II uses a theoretical framework to derive particular policies that would minimize the costs of poverty alleviation within a safety net scheme. Section III presents an example scheme to illustrate how the policies might be combined into a practical program. Section IV outlines how the costs of such a program might be calculated. Costs for Poland for 1990 are estimated as an example and some comparisons are drawn between the scheme proposed in Section III and the current Polish program. Finally, Section V summarizes the main conclusions.

The boundaries of the scheme and the assumptions underlying it should be clearly defined. First, it is assumed that the objective is to minimize the expenditure required to achieve a desired level of poverty alleviation. No consideration is given to how the revenue for the required expenditure

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1/ Strictly speaking, the term social safety net may apply to income support measures, employment services, proactive employment and income generation activities and the funding and provision of adequate health services. In the context of this paper, the term will be used to mean income support measures and employment services when they are used in conjunction with the objective of poverty alleviation.

2/ There has been much debate about how to define 'poverty' and the 'poor', as will be discussed below. In the context of this section, poverty is used to describe the situation where income is below the level of the minimum income guarantee as defined in the safety net scheme's objective.

would be raised or to the optimal structure of the associated taxation schedule. 1/

Second, the scheme is not designed to maintain living standards during periods of unusually low income. It is not an insurance scheme in the sense that benefits are paid to guarantee a certain level of income should a specified contingency occur. In this sense, it differs from many programs of social insurance programs that have developed in industrialized countries such as the U.S. and the U.K. It may well be the case that such insurance schemes would form part of social programs adapted after the transition has been largely completed. The only exception to this is in the treatment of the elderly. It will be assumed that an insurance scheme of some description operates alongside the safety net to provide a guarantee of adequate income for retired workers, although the safety net itself would provide cover for those for whom the insurance scheme might fail. The reasons for making the distinction for the elderly are that it is an easily identifiable group for whom a case can be made to maintain the living standards at its previous level rather than just at some minimum level. As the optimal nature of the retirement insurance scheme has received much attention in the literature, it will not be considered here.

In a very general sense, however, the safety net is a type of insurance scheme. It is funded through general taxation and hence is financed by every member in society to the degree that he or she pays government taxes. In return, every member of society may lay claim to the benefits of the program, subject to fulfillment of specified requirements, should the circumstance of poverty occur. The safety net fails to correspond to an insurance scheme in the respect that benefits are not related to contributions. Implicitly, the individual and society enter into a contract whereby the individual agrees to provide support for the poor when he has the resources to do so and, in return, society promises to protect the individual against poverty. 2/

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1/ In addition, the question of the appropriate policy if there are insufficient funds to bridge the poverty gap is not addressed. It can be hypothesized that the answer will depend upon the relative value of raising income above the poverty line to levels which still leave the individual below the sufficient level. If the poverty line marks some discontinuity in the value of income, then priority may be given to the former aim, in which case, the discussion in this paper would provide little guidance. If there is no discontinuity, but the marginal utility of income for the very poor is higher than that for the poor, the discussion of this paper is relevant with the poverty line and benefit levels set at the appropriate lower level.

2/ The insurance motive is not the only possible rationale for safety net schemes. The existence of poverty may generate negative externalities (e.g., crime) which affect the more affluent members of society. Another justification would be some appeal to non-welfarist notions of inalienable rights or morals. For the purpose of this paper, we assume only that the objective is to reduce poverty without specifying the reason.

Third, poverty is measured entirely in terms of a certain level of income or command over resources and no attempt is made to analyze it in terms of utility or a more general welfare function. Implicitly it is assumed that utility is a monotonically increasing function of income, 1/ although it is duly recognized that utility may be a function of many factors including leisure. Yet given the lack of practical applicability of policies based upon definitions of utility at this time and the nature of the political debate on income maintenance programs which centers upon income rather than utility, it is felt that the most appropriate and operational definition of poverty is in terms of income.

Fourth, it is assumed that the government can observe the income of an individual to a reasonable degree. This may not always be the case, for example, it may be problematic in many developing countries, but for an economy with some type of income tax system, as is the case in most industrialized countries, it is not an unrealistic assumption. However, theoretical research has shown that optimal safety net systems may have very different structures when this income observation condition does not hold 2/ and it is important to note that this model may not be directly applicable to many developing countries for this (and other) reasons. 3/

Finally, the motivation to consider this problem originated in the current Polish economic restructuring program, which was initiated in full at the beginning of 1990. In particular, the unusually high unemployment associated with the temporary recession has created extreme hardship for the economically vulnerable societal groups in Poland. Consequently, the design of the social safety net scheme embodies policies aimed at aiding the redirection of resources to new lines of production through enhancing the mobility of labor and improving the match between labor skills available and those demanded. However, no consideration is given to direct job creation programs, such as employment subsidies or individual enterprise loans, which aim to reduce poverty through maintaining employment. Although such measures could be an important complement to the scheme outlined here, it is felt that their merits and drawbacks would be better discussed within the context of a more general labor market analysis dealing with reducing unemployment rather than in the context of poverty alleviation which aims to mitigate the adverse consequences of unemployment.

Any income maintenance program operating under conditions of imperfect information faces conflicting objectives. First, to guarantee a minimum

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1/ Given that the policy tool available is the redistribution of income, it would be difficult to influence utility if it were not directly related to income. For example, it is not immediately obvious how a government might increase the utility of an extremely affluent, but very unhappy, individual.

2/ For example, see Besley and Coate (1990a).

3/ For example, there may be a stronger case for providing benefits in kind rather than in cash in developing countries.

level of income to all and ensure that all those in genuine need receive sufficient support to bring their standard of living up to the poverty line; that is, to guarantee full and adequate take-up of the benefits by the poor. Second, to minimize work disincentives and other distortions which may lead to benefits being paid to those who could otherwise support themselves and to eliminate payments to the non-poor; that is, to eliminate 'leakage'. Realizing this aim means minimizing the budget costs for any given poverty reduction objective. In addition, it is desirable that the program should be operated at minimum administrative cost; but there may well be trade-offs between a highly individualized, but complicated, scheme and the administrative savings from simplicity.

## II. The Design Of a Social Safety Net

Section II starts with a brief discussion of the debate surrounding the definition of poverty and suggest some alternative methods of determining the poverty line, followed by a subsection outlining major alternatives in the design of income maintenance programs. Problems 1 to 3 discuss the conflict between the avoidance of leakage and of behavioral distortions. The 'Solution' subsection aims to provide an answer to this conflict by combining a particular categorization of claimants according to work requirements. The potential problems that might still arise in the form of low take-up, administrative costs, distortions in household structure and other behavioral distortions are discussed along with the steps that can taken to minimize them. Consideration is then given to whether transfers should be paid in cash or in kind. Finally, it is argued that a social insurance scheme cannot provide an adequate minimum income guarantee.

### 1. Definition of a poverty line

Any discussion of a minimum income guarantee program, which aims to alleviate poverty, requires agreement on the definition of a poverty line to distinguish the poor from the nonpoor. There are wide divergences of opinion about the appropriate way of conceptualizing poverty. 1/ In particular, there is disagreement about whether poverty should be defined as an absolute or a relative concept.

The absolute definition of poverty is based upon objective criteria. For example, nutritional experts might be asked to assess the basic needs of individuals with respect to food, while other specialists would advise on

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1/ Difficulties arise from the fact that the standard of living, and hence any definition of the poverty line based upon the standard of living, is a multidimensional concept, including the commodities an individual consumes and the activities he engages in. However, as mentioned in the Introduction, this paper will consider only the income dimension. For further discussion of the poverty line and the measurement of poverty, see, for example, Kanbur (1987).

clothing, housing or income requirements needed to meet basic minimum levels determined as and referred to as the poverty line. This definition does not explicitly link the level of the poverty line to average welfare in society, but the choice of basic needs is implicitly culture bound.

The relative conceptual definition of poverty, on the other hand, is based on the notion of poverty as a state of relative deprivation and takes into account the general levels of welfare in a society in making a determination of the level to be defined as the 'poverty line'. One might choose a fraction of the median or average family or single person income, as the poverty line, or determine it as a specific percentile of the income distribution. Under the latter approach, poverty would obviously never be totally eliminated.

One approach to determining basic needs is to base the poverty line on general societal opinion by asking individuals what they consider to be an absolute minimum income for their household. Van Praag, Goedhart & Kapteyn (1980) use such a survey of European Community households to estimate poverty lines differentiated by family size for ten countries. Similarly, Van Praag, Hagenaars & Van Weeren (1982) estimate poverty lines for different levels of welfare and calculate the percentage of people with income below that line in each country. The poverty lines defined by this method may accord with individual citizens' views on poverty. Thus, an official measure established by this method would probably be politically acceptable.

It might therefore be argued that any official poverty lines that have become established may have accorded with public perceptions of poverty. Hence, existing official definitions may represent the public consensus on the level of income that society should attempt to guarantee to all. Although the official standard may reflect that level of poverty which society is willing to attempt to eliminate rather than those levels that society disapproves of when claiming there is too much poverty, it is the former which is of present interest.

Thus, it is to be recommended that the official minimum level of income should be determined by some type of basic needs concept, possibly by a survey as described above. Alternatively, the official minimum levels could be patterned on those followed in a country with similar socioeconomic characteristics, including average incomes and where a good record of coping with poverty existed.

## 2. Major alternatives

The structure of a minimum income guarantee program can be considered in terms of three major alternatives. The first is a 'social dividend' system, which involves the payment of a guaranteed minimum to all and the taxation of all other income, either at a flat or a progressive rate. The payment of the transfer is unrelated to any other income or characteristics

of the recipient. Suppose that the poverty line is given by Z, so that all those with income below Z are considered as living in poverty. The objective therefore is to ensure that everyone has a final income of Z or above. In Figure 1, the dashed 45 degree line shows the scheme that would leave final income no different from original income and the unbroken line illustrates the social dividend scheme with a flat tax rate. The objective of a minimum final income of Z is achieved and all those with original income below Y* are net beneficiaries of the scheme, while those with income above Y* are net losers. The slope of the line shows the marginal tax rate and the flatter the line, the higher the marginal rate. The budget cost of the scheme is z multiplied by the total population size.

The second type of system is a contingency-based or universal categorical benefit. Individuals are entitled to benefit if some particular event or contingency occurs or if the individual has a particular characteristic. Benefits are again independent of income. Contingency events might include unemployment, sickness or old age. Many social security systems have operated on this basis, although payments under these systems are usually dependent upon sufficient contributions. Qualifying individual characteristics might include single-parent families or just the presence of children in the household. 1/ Transfers are targeted towards contingencies with high poverty incidence 2/ with the aim of ensuring that as much as possible of the total transfer is paid to those in poverty without the need for any means-testing. This system does not, however, guarantee to bring those in poverty who do not fulfil the contingency requirements up to the poverty line and as such does not achieve the primary objective of poverty alleviation.

The third type of system is that of means-testing which pays a transfer to anyone whose original income is below Z of an amount just sufficient to bring their final income up to Z. Figure 2 illustrates the case where income can be observed accurately and costlessly and where there are assumed to be no incentive effects. For anyone with original income below Z, a transfer of Y-Z is paid and the system guarantees a minimum final income of Z. Those with original income above Z are net contributors to the scheme

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1/ For example, single-parent families are entitled to AFDC payments in the United States and all families with children are entitled to Child Benefit in the United Kingdom.

2/ The poverty incidence of a particular group is the number of people in that group with an original income below Z divided by the total number in the group. Targeting the group with the highest incidence of poverty need not necessarily be the most efficient method for alleviating poverty if consideration is given to how much income falls short of the poverty line. For example, if a social welfare function values more highly the alleviation of poverty among the very poor than among those just below the poverty line, it may be optimal to target aid not toward the group with the highest proportion in poverty but toward the group which has a high proportion of very poor or a large poverty gap.

Figure 1: A Social Dividend Scheme

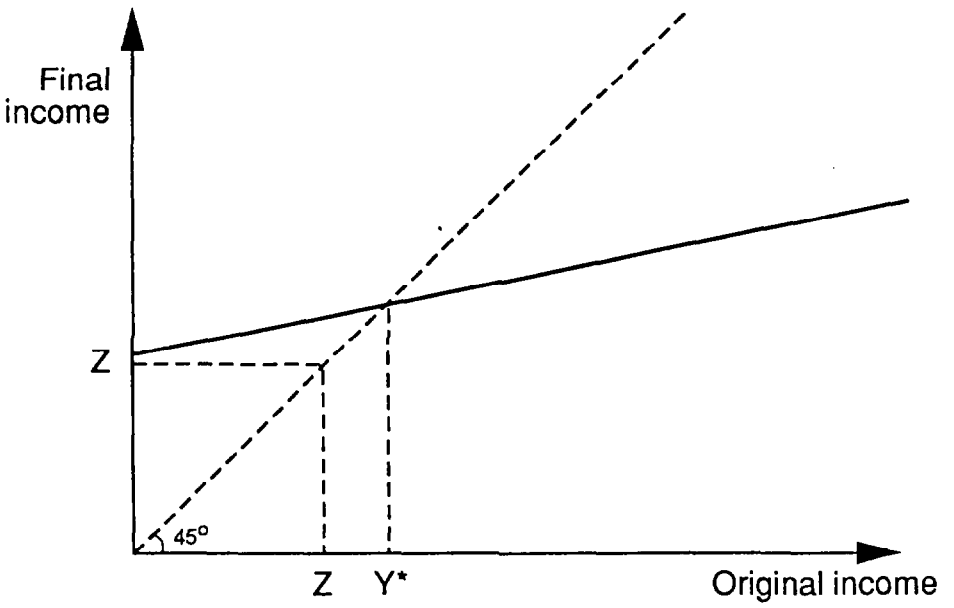
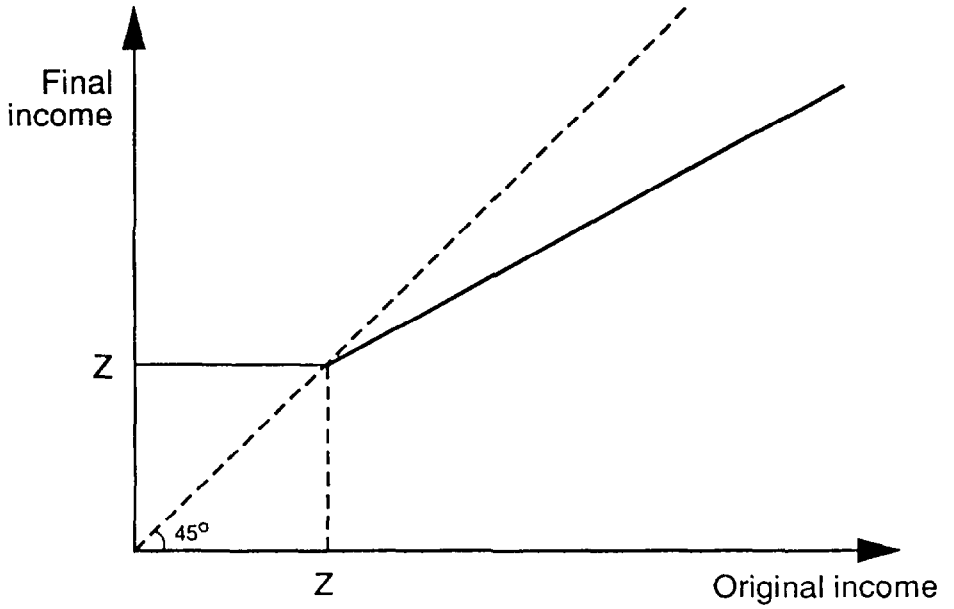



Figure 2: A Means-Tested Scheme



and are taxed at a sufficient rate to finance the transfers. The larger the tax revenues to be raised, the flatter the line and the total budget cost is the sum of the transfers given by the payments of Y-Z.

3. Kinds of problems

a. Problem 1: Leakage

Leakage occurs either when payments are made to the non-poor or when an amount paid to a poor individual brings the final income above the poverty line Z. This is shown as areas (a) and (b) respectively in Figure 3, which illustrates the effect of the payment of a social dividend on income. As can be seen, a large amount of leakage would occur under such a system because all of the non-poor receive a transfer as well as the poor. As a result, if there is a fixed amount of resources available for the program, the benefit level must be set at a very low level in order to meet the budget constraint and the minimum income guarantee may not be provided for all. This is shown as area (c) in Figure 3. In order to provide the minimum income guarantee for all, the revenue required would be very large and the necessary tax rate would be very high. There will also be some leakage in a universal or contingency-based system as payments are not related to original income. 1/ It has been argued that universal programs can command higher political support than means-tested programs (because they benefit all those with income below Y* in Figure 2 rather than just those below Z), as a result of which, a larger budget will be available for poverty alleviation. However, if there is an objective to minimize the budget requirement, social dividend and universal contingency schemes present a problem. By contrast, a means-tested program pays only to the poor an amount that just brings them up to the poverty line and has no leakage at all. The transfer under such a scheme is shown by areas (c) and (d) in Figure 3.

b. Problem 2: Distortions in category

A second problem with a contingency or universal benefit scheme is the incentive for people to alter their characteristics in order to meet the contingency requirement. For example, a social insurance scheme protecting against loss of work may encourage unemployment or families may separate in order to obtain benefits for single-parent families. 2/ Akerlof (1978) has shown that the perverse incentive of being identified as needy by becoming a member of a 'tagged' group may reduce the attractiveness of targeting by contingency.

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1/ For example, in the United Kingdom, contingent benefits form over 70 percent of the transfers and it has been estimated that little more than half of all expenditure on transfer payments goes to bringing the poor up to the poverty line.

2/ Distortions in household structure and the incentives to work may occur under other schemes and are discussed below.

c. Problem 3: Disincentives to work

One of the major problems with the means-tested scheme is the disincentive to work which it creates. The problem relates to the difficulties of imperfect information, for if the government could know each individual's tastes and abilities, taxes and benefits could be made to depend directly upon exogenous characteristics. Agents can, however, change their behavior in order to alter their income and the amount of tax to be paid or benefit received.

An individual maximizes utility by choosing among income-leisure options, subject to a budget constraint. A transfer program which provides income support without work requirements and reduces the benefit paid at a dollar-for-dollar rate as income rises will alter the shape of the budget constraint as shown in Figure 4. The budget constraint without the transfer program is BB and the transfer constraint is B'B', where the horizontal segment shows the 100 percent tax rate implicit in the benefit reduction as income rises. As I'I' represents a higher level of utility than II, it can be seen that some previously employed individuals will have an incentive to reduce their labor supply to zero in order to claim the benefit. The basic model may be extended to include such factors as intertemporal labor supply, discontinuous labor supply functions, constraints on work-time flexibility and household decision-making, (see Danziger, Haveman & Plotnick (1981)). In addition, the theory of job search suggests that the provision of benefits during unemployment will create incentives for greater frequency and longer periods of unemployment. Aggregate work effort is expected to be lower with than without means-tested transfers, but the size of this effect remains an empirical matter. 1/

As a result of these incentive effects, the cost of a means-tested program may be higher than the sum of the transfers of Y-Z. In Figure 2, all those with original income below Z will reduce their labor supply to

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1/ It may be argued that the distortion in work incentives under means-testing creates a loss in efficiency which would not arise under a social dividend scheme and that the latter therefore generates additional resources for a poverty alleviation program. However, although revenue implications are not considered in this paper, it should be mentioned in this context that the efficiency disadvantage of the social dividend scheme is that it requires a larger budget, a larger tax burden on the working population and a correspondingly larger distortion in work incentives. Therefore, the choice is between a distribution of high marginal tax rates skewed in the direction of the poor or a more even spread of marginal tax rates. Kesselman and Garfinkel (1978) and Sadka, Garfinkel and Moreland (1982) find that a social dividend type scheme is preferable, but Betson, Greenberg and Kasten (1982) argue that neither has substantial efficiency costs because taxpayers partially compensate for an increase in the tax burden by increasing their work hours and earnings.

Figure 3: Leakage in a Social Dividend Scheme

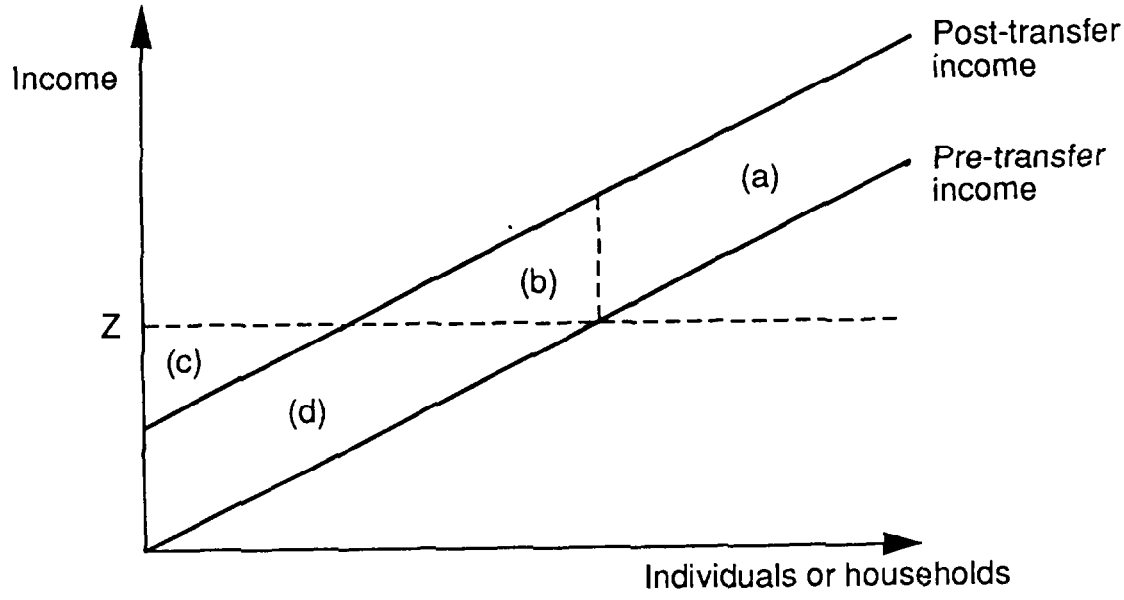
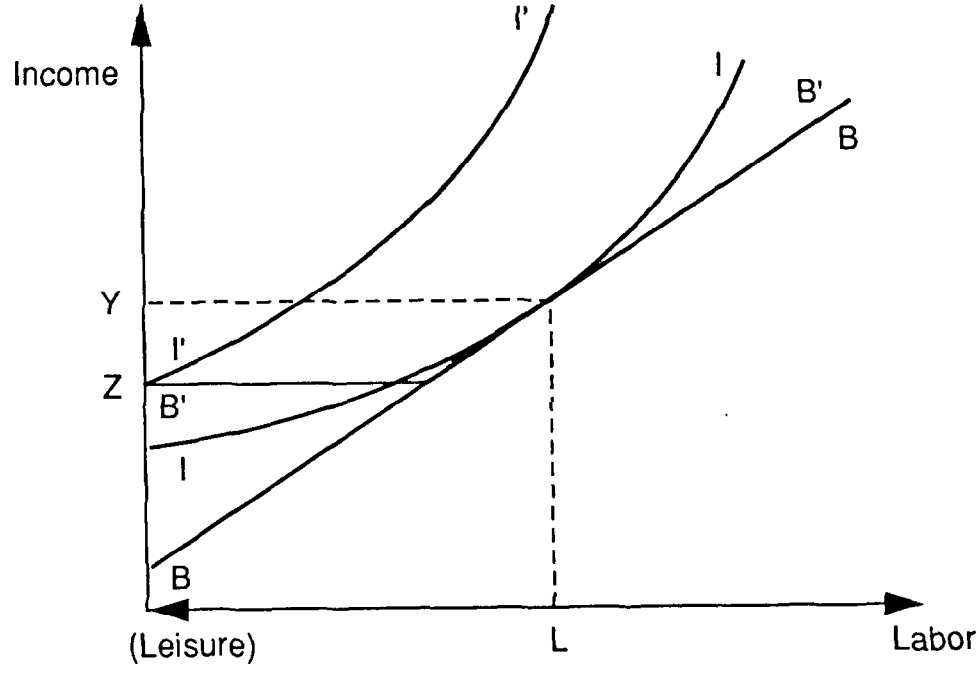



Figure 4: Work Disincentives in a Means-Tested Scheme



zero 1/ and the total transfer cost, assuming zero non-wage income, will be Z multiplied by the number of claimants.

A variety of work has been carried out on transfers and work decisions. For example, Atkinson (1987) reports that a number of studies have found that a 1 percent rise in benefits tends to be associated with rather less than a 1 percent increase in unemployment duration or decrease in the probability of leaving unemployment. Munnell (1986) reports that the negative income tax experiments in four U.S. locations in the 1960s and 1970s caused modest reductions in work effort, with responses greater among women than men. Hammermesh (1982) concludes that the evidence suggests that a twenty percent increase in benefits induces between one-half and one extra week of measured unemployment. Lancaster and Nickell (1980) conclude that the size of the effect of benefits on unemployment durations is a firmly established parameter, consistent both with theoretical reasoning and previous studies. Danziger, Haveman and Plotnick (1981) survey the evidence available, and the difficulties involved in an empirical analysis, and conclude that a positive relationship between transfer payments and the duration of unemployment does appear robust. However, Atkinson, Gomulka, Micklewright and Rau (1984) show that, for the U.K., there is considerable variation in the elasticity when alternative benefit variables, specifications of the replacement rate, time periods and the inclusion/exclusion of family circumstances are considered. With some formulations, it is possible to reproduce earlier findings, but other formulations produce an estimated elasticity that is not significantly different from zero. Thus, they conclude that the evidence about unemployment benefit and unemployment duration is far from robust.

## 4. Solutions to problems 1 to 3

### a. Categorization by ability to work and workfare requirements

The condition in which the problem of work disincentives would not arise and means-testing could achieve poverty alleviation without leakage or distortions, would be a world of perfect information where the government could observe precisely the income-generating ability of each individual. In this situation, the scheme would means-test individuals according to their ability rather than by their income and, assuming that abilities were exogenously determined, 2/ would create no distortions in incentives whilst also providing a complete guarantee against poverty at minimum cost. In reality, imperfect information means that the authorities are unable to

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1/ In Figure 4, any individual whose indifference curves form a tangent with the budget line below an income level of Z, will always attain higher utility at the income level Z with zero labor supply.

2/ To some extent individuals are able to alter their income-generating ability, by the amount of human capital they choose to invest. This issue will be discussed below.

observe true abilities and individuals may be able to masquerade as those of lower ability.

The fundamental dilemma of reducing poverty while also encouraging self-support could be resolved if the poor could be divided into two groups: those able and expected to work and those who are not, with assistance being limited to the second group. The underlying social philosophy would be that society should guarantee an adequate income floor, while beneficiaries fulfill a reciprocal obligation to contribute to their own support to the extent that their capacities permit. For those who can support themselves and have flexible labor supply elasticities, the transfer system may create large distortions in their choices, while for those with inelastic labor supplies because of an inability to work, the option of income support creates no distortion. Therefore, levels of support and marginal tax rates should be set higher for the latter group. In effect, this is a 'tagging' on the basis of ability to work with benefits targeted at the group with a lower or zero income-generating ability. As Kesselman (1973) 1/ points out, the problem is whether a scheme can be devised which will satisfy broadly accepted notions of equity and also entail little administrative discretion. Such a categorization may be practically feasible, given strict guidelines to administrators and the placing of responsibility to prove inability to work on the claimant. Through such provisions in the scheme, those truly unable to work would receive adequate support, while those of higher income-generating ability would be treated in such a way as to minimize work disincentives.

For those deemed able to work, the safety net scheme must seek to ensure that: (1) those capable of employment do not pose as being unable to work by reducing their income to zero; 2/ and (2) those currently employed do not pose as individuals of lower ability by reducing work hours or accepting employment requiring less effort or skills.

Nichols and Zeckhauser (1982) have shown that in order to promote target efficiency, eligibility requirements for transfer programs should restrict the behavior of recipients. Such requirements should provide a 'sorting' or 'screening' function in the form of limited ordeals that impose relatively little cost on the intended recipients, who have few alternatives, but at the same time serve to deter potential impostors. For example, those of low ability who command low wage rates, face little opportunity cost from a work requirement in return for a transfer payment, while those of higher ability forego a higher wage at greater cost.

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1/ Kesselman (1973) advocates a system based on this distinction, but his 'SWIFT' proposal offers wage subsidies for those deemed able to work and income subsidies for those categorized as unable to work.

2/ As was described above and in Figure 4, an individual may be better off by accepting a lower income for higher leisure hours.

To minimize work disincentives, those deemed as able to work but not fully employed would be required to undertake courses, or fulfill workfare or training requirements such that they are occupied in some form of work or training for a certain minimum number of hours a week, which we denote as H. It is assumed in this section that the workfare requirement does not necessarily result in socially valuable or productive work.

In addition, it may be argued that, given a certain time requirement, it is desirable to encourage claimants to fulfill that requirement in the private sector rather than in the income maintenance program, particularly workfare. Continuing involvement in the private sector may help to maintain human capital and the worker may be better informed of employment opportunities. From a budgetary standpoint, the costs of the scheme will be lower, the higher the proportion of income derived from the private sector. Therefore, a premium in the benefit level could be paid to those who participate in the private sector at least part-time. In the following discussion, an individual who has no private sector employment but is deemed capable of working is designated an 'A' track case and an individual participating at least part-time in the private sector is designated a 'B' track case.

The budget constraint facing the individual or household under such a policy is shown in Figure 5. The safety net offers the individual two discrete choices - H hours of some form of employment 1/ for an income of Z* at point B for those with some private sector employment or H hours of employment in track A for an income of Z at point A for those with no private sector employment. The B benefit has an implicit wage rate of Z*/H which is shown as wB and the A benefit an implicit wage rate Z/H which is shown as wA. Any individual of a given ability faces a particular wage rate in private employment which determines the slope of the budget line. Individuals of higher ability commanding higher wages have a steeper budget line, such as wH, and individuals of lower ability a shallower line, such as wL. The indifference curves II to I''I'' reflect preferences between income and leisure (which is the total hours available minus those spent in employment), with I''I'' representing a higher level of utility than I'I' and similarly I'I' showing higher utility than II. For all those who command a wage higher than the rate implicit in the B track, such as wH, they are always better off working in the private sector at some point such as H' hours for an income of Y than claiming benefit. They earn a greater return per hour employed and can vary the number of hours to the optimal level. For those who can only command a wage of less than wB, such as wL, they are generally better off claiming B track benefit for the wage rate wB. For the indifference curves shown, this may result in a reduction in hours of employment from H'' to H. It is obvious from the diagram that point B is

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1/ The term employment will be used in a very general sense to describe any private sector employment, workfare, training or job search course.

always preferred to point A 1/ because there is a higher income for no additional hours of employment. Thus, every individual in A track has an incentive to qualify for B track. In order to qualify for B over A, the individual must engage in some private sector employment. Additionally, it may be assumed that for many individuals it might be preferable to be fully employed in the private sector than in part-time private employment and part-time workfare, for example, because of the fixed costs of travel to the place of employment. 2/ Thus, for most individuals with a wage below wB, it is preferable to be at point B and working full-time in the private sector for a wage of wL, topped up to an income of Z* by the B benefit. The only work disincentive is for the individual who would normally have worked more hours than H. Thus, the employment requirement of H should be set at the highest feasible level that is considered reasonable for people to be expected to work in order to minimize this disincentive. In addition, the higher the work requirement for any given minimum income guarantee, the lower the implicit wage in the transfer, the smaller the number of individuals who will be of an ability below wB and the smaller the number who find welfare preferable to working. Given a sufficient level, this scheme creates no disincentives to private sector employment. 3/ A work requirement would, however, discourage those with a high leisure preference from claiming. This is shown in Figure 6 by an individual of earnings ability wL and preferences shown by II. Because of the high disutility from employment, the indifference curve is very steep and the individual would rather work H' for an income of Y than be employed for H hours for an income of Z*. Thus, the objective of poverty alleviation may not be met, although it could be argued that society has no obligation to help those able-bodied individuals who are not prepared to do all that they can to help themselves.

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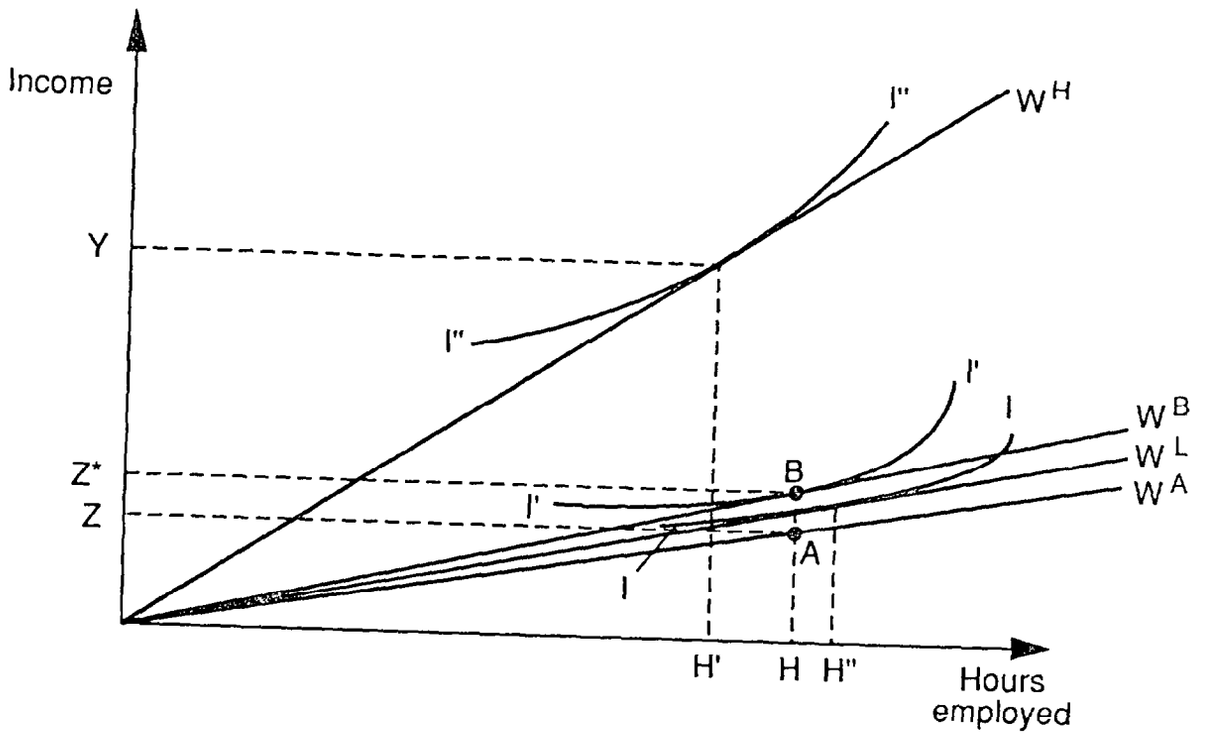
1/ It should be noted that this need not result in zero claimants participating in A track because although individuals may have a preference for private employment, they will only be working if such employment is available. Thus, those in A track may prefer to work at the going wage rate, but are unable to because of a lack of available jobs.

2/ There may also be other costs associated with such part-time employment in the form of the psychological disruption of undertaking two different forms of employment, although some, of course, might prefer the variety.

3/ Besley and Coate (1990a) have shown that for a model of two individuals, one of high ability and one of low, the optimal work requirement is set at a level which would make the high wage individual indifferent between masquerading and claiming no benefit at all. When coupled with a transfer sufficient to get the poor to the poverty line, and if this requirement is above the level, the low ability individual would normally work. If it is below that level, as shown in Figure 6 where H'' is above H, the optimal requirement is higher but indeterminant. Besley and Coate also show that because the demand for work requirements is less acute when it is possible to monitor individual incomes, whenever workfare is optimal when income is observable, it will be optimal when income is unobservable.

Figure 5: Labor Supply With A Social Safety Net



For completeness, Figure 6 also shows an individual with a large preference for income shown by the indifference curve I'I' and an ability of wA. Although his earnings ability is below the rate implicit in the B track benefit, the individual would rather work the longer hours of H'' for the slightly higher income of Y' because the B track does not permit any income above Z* by constraining the number of hours of employment available at wB to H.

Throughout the discussion so far, it has been assumed that an individual's wage rate is exogenously given by his or her ability level. In reality, an individual may vary his wage rate by varying the amount of effort per hour. It may be assumed that increases in effort result in increases in the wage, but that effort is negatively related to utility. Each individual faces an upper limit on the wage rate that can be earned due to intrinsic ability and this upper limit is the wage rate shown in the earlier diagrams. In other words, until now, it has been assumed that individuals will put the maximum amount of effort into work. If we relax this assumption and permit the individual to optimize behavior over three variables - income, hours employed and effort per hour - instead of only the first two, it can be seen that a safety net scheme may create a disincentive to work effort. It is still assumed that the government cannot observe an individual's ability and hence cannot determine whether a low wage rate is a result of low ability or low work effort. Thus, by reducing effort an individual can pose as someone of lower ability.

For any individual of an earning ability below wB, there is an incentive to seek employment of the least possible effort and the lowest wage rate. The individual loses nothing in income, for he still receives Z*, but gains utility through the reduction in effort. For an individual with an earning ability above wB, there is a trade-off. On the one hand, he gains utility from the reduction of effort to the minimum, but on the other, he loses utility in either (1) the reduction of income to Z* if he was working H hours or more, or (2) the increase in working hours to H if he was earning Z* with fewer hours of employment, or (3) a combination of (1) and (2). Whether there is a reduction in effort or not will depend upon the relative size of these factors. In effect, whereas this scheme avoids any kink in the income/hours employed budget constraint, it creates a kink in the income/work effort constraint instead, as shown in Figure 7. In the figure, the hours of employment are fixed at H. The line BB shows the constraint without the safety net and the kinked line B'B' shows the effect of the income guarantee. The effort level E corresponds to that required to earn a wage of wB in the private sector. An individual with the preferences shown will prefer to reduce effort to a minimum in return for an income of Z* than earn an income of Y from an effort of E'. Two costs arise out of this reduction in effort. First, the lower private sector wages and the resulting increase in the number of claimants will expand the revenue requirement of the program budget. Second, there is a loss in productivity as a direct result of the effort reduction and because individuals will not be using their skills to full ability.

The disincentive to effort, however, might not be a serious problem for two reasons. First, substantial reductions in effort and a reduction in the wage rate would probably require a change in employment, which is costly. Time spent in lower-paid work might be harmful to future career plans and may not be preferable in the longer-term context. Second, because of the lack of skill requirements, lower-paid work may have negative features which compensate for the lower effort required, such as, being tedious or 'dirty'. It is also evident that higher-paid and higher-skilled work often carries with it positive social status. In choosing employment, income and effort are clearly only two of many factors determining the decision.

To guard against the possibility of encouraging a substantial reduction in work effort for those fully employed and claiming the B track benefit, there should be a requirement that a search be made for an adequately paid job. A calculation could be made of the individual's expected earning level and type of employment position on the basis of the individual's qualifications, experience, etc. If actual employment differs significantly and vacancies are available for the expected type of employment, the claimant could be required to apply for such work and, failing acceptance after a certain period of time, could be sanctioned through loss of benefit. Whether it is cost-effective to enforce such requirements, however, will depend upon the number of such 'shirkers' and the number of appropriate vacancies available. In times of high unemployment, it may clearly not be worthwhile. Thus, the claimant may just be required to produce evidence of attempting to obtain adequately-paid employment if there is a serious mismatch between actual earnings and the earnings potential.

b. Job search, training and workfare

For an economy undergoing major restructuring, minimum income guarantee programs may act as a buffer which can inhibit and postpone industrial redeployment. Specific measures may be incorporated to encourage and enable a return to employment for the unemployed through enhancing the efficiency of the labor market and improving the match between the skills available and those demanded.

The use of job market skills and progress courses 1/ are based on the assumption that many claimants are currently employable, but have not found jobs because they do not know how or are not sufficiently motivated to look for them. The objective of the courses is to encourage and teach people how to seek employment. From the viewpoint of the budget, intensified placement activities are a cheaper alternative than unemployment compensation, training and job creation measures. Rehnberg (1984) argues that experimental schemes of intensified placement have shown that many of the people occupied by means of some measure of labor market policy probably could have found employment immediately if sufficient placement resources

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1/ For a description of what these might include in practical terms, see Section III.

had been available. As an example of the effectiveness of job search classes, Kirp (1986) reports that in a San Diego experimental program in the United States, women who participated in job search classes were 20 percent more likely to be employed six to nine months later than those who did not participate. Hence, time and resources may be given to ensuring that those immediately employable can obtain employment before moving on to workfare and training requirements.

The incorporation of a workfare requirement into the safety net scheme has already been justified in terms of strengthening work incentives and ensuring that only the truly needy claim benefits. Workfare may also produce useful public services and the work requirements may be socially productive. Traditional criticisms of workfare have included the difficulty of distinguishing those with a genuine reason not to work, which would not be a problem in a scheme with categorizations of 'able to work' and not able to work. There is also the difficulty of creating work without displacing other workers, which is a problem that administrators should be careful to avoid in making workfare assignments. For the claimants themselves, workfare may be beneficial in providing work experience and maintaining working habits and social contact.

The training requirements should be directed toward skills in high demand and which will be useful to society as a whole. For well-adjusted economies with no significant skill shortages, this training requirement may only cover the most basic skills required for employment. Given the relative expense of training programs, investments should only be made when the returns are obviously positive. This does not mean that it will be necessary for a specific job to be available for the claimant upon completion of the course. It has been argued however, that even if training programs do not give a positive return to society, at least the claimants are engaged in the struggle for independence and the very fact that they are out of their homes, learning some skill and participating in society, should help break the cycle of dependency. 1/

In the United States, much work has been undertaken to evaluate the impact of workfare and training programs on welfare dependency; many of the findings have been quite positive. In particular, the Manpower Demonstration Research Corporation (MDRC) conducted a five-year social experiment examining state work/welfare initiatives in a series of large-scale evaluations in eight states and smaller-scale studies in three states. The results have been analyzed in a number of articles including, for example, Gueron (1987, 1990), Addison (1988), Friedlander, Goldman, Gueron & Long (1986), and Lalonde (1986). Gueron reports that the experiment showed that it is generally feasible to impose obligations or participation requirements as a condition of welfare receipt. Although the workfare positions did not develop skills, they were not make-work either. In job assessment surveys, supervisors judged the work as important and

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1/ For example, see Kirp (1986).

indicated that participants' productivity and attendance were similar to those of most entry-level workers. A large proportion of the participants responded positively to the work assignments, indicating satisfaction with their positions and feeling that they were making a useful contribution, although many would still have preferred a paid job. Control groups were used in the experiments to determine the effects of the programs on employment and earnings. The resulting data showed that programs of mandatory job search increased the employment rate for women, but had no substantial effect for the male group. The results also showed that in most cases, the programs had led to consistent and measurable increases in employment and earnings, with the exception of West Virginia which is a rural state with exceptionally high unemployment. Additionally there were some welfare savings, although the results were less consistent than those for employment and earnings. There was no evidence that, once people had applied for welfare, they were deterred from completing the application process by the obligation to participate in a work program. A cost-benefit analysis of the programs produced generally positive results, showing that the initiatives cost money up front, but, in general, the investment paid off in future savings in five years or less.

Thus, the incorporation of training and workfare measures into a scheme could play an important role in aiding the return to employment and the redirection of labor towards new industries in an economy undertaking restructuring. The usefulness of training and workfare in enhancing the efficiency of the labor market will, however, depend upon work being available and certain skills in high demand. The example of West Virginia in the MDRC experiment shows that the benefits in a situation of high unemployment may be limited. If employment opportunities are constrained by inadequate demand, additions to the supply of skilled workers through added training will accomplish little. However, in a situation of high unemployment and significant mismatch between the skills demanded and those available, such training could be highly productive if managed in the right directions.

5. Other problems

a. Problem 4: The take-up of benefit

If benefit levels are set at an adequate level, every individual and household is guaranteed a minimum income and poverty alleviation is complete, as long as claimants are willing to fulfill the requirements and all those eligible claim and receive the correct amount of benefit. However, historically, the problem with many means-tested income support programs has been incomplete take-up. Not all of those eligible for support may make a claim and receive benefit and as a result many may remain in poverty. There are three types of reasons why take-up may not be complete. First, there may be incomplete information and eligible households may not claim because they are unaware of the existence of a benefit or may be aware of the benefit but believe that they are not eligible. Second, there may be

Figure 6: Labor Supply With A Social Safety Net-
Extreme Cases

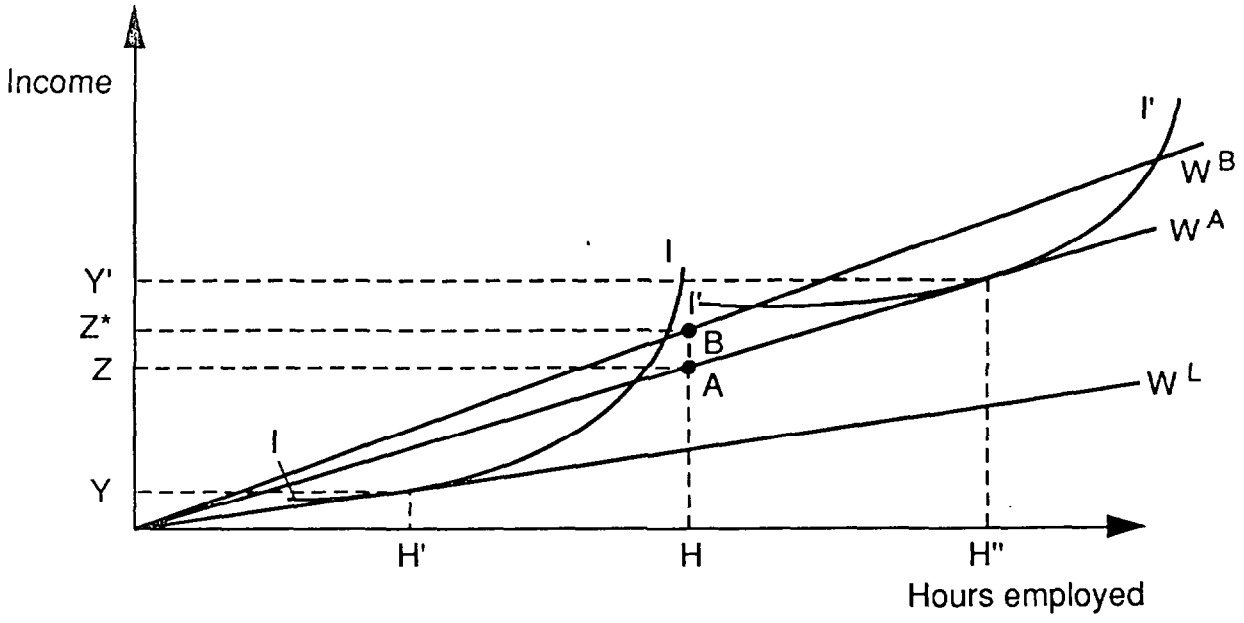
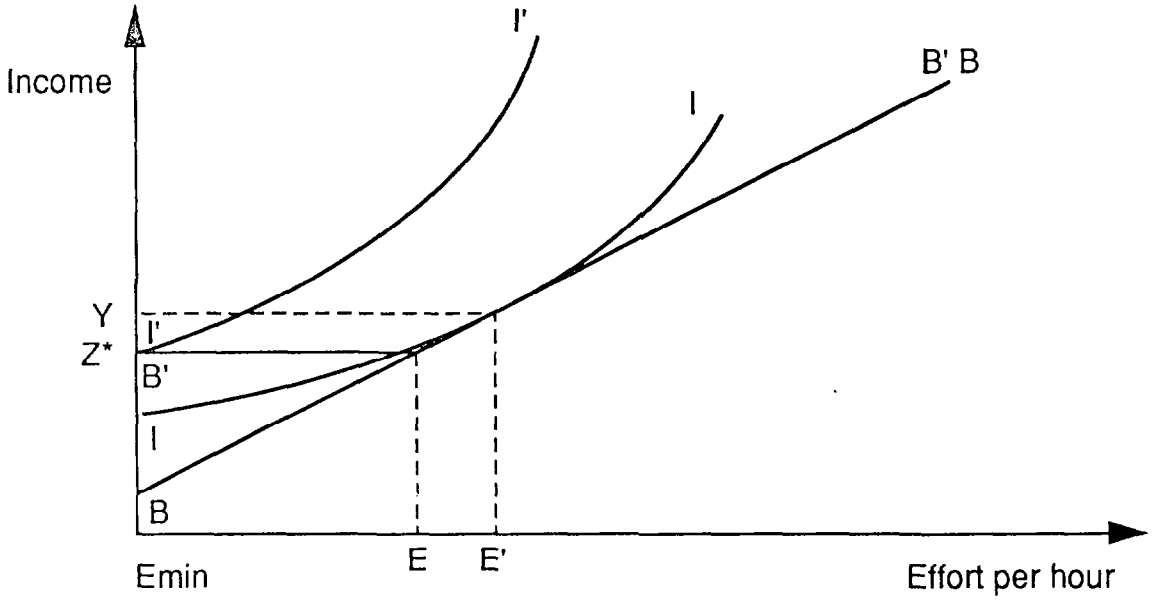



Figure 7: Work Effort With A Social Safety Net



costs associated with claiming, such as, the financial or time costs in the application process or the stigma of claiming welfare. If these costs outweigh the benefits that will be received from claiming, then the household or individual will not find it worthwhile to do so. Third, a household or individual may have made a claim, but been rejected because of an administrative error. Take-up is not usually a problem under a universal or social benefit scheme because everyone fulfilling the category automatically receives the benefit without any need to claim. Thus, this is a difficulty associated with means-testing.

In the United States, income-tested welfare programs have surprisingly low take-up. MacDonald (1977) and Coe (1977) both found that participation rates by eligible two-parent families in the Food Stamp program of the early 1970s were under 40 percent. Estimates of participation rates by eligible two-parent families in the AFDC Unemployed Parent program were also low; for example, see Boland (1973), Rein (1972) and Lidman (1975). One program with a high participation rate is the basic AFDC program; for example, Hall (1976) uses data from the Denver Income Maintenance Experiment to calculate that in June 1970, 87 percent of legally eligible families were receiving AFDC payments. Michel (1980) finds participation rates in AFDC of around 90 percent. In the United Kingdom, the take-up of the means-tested Family Income Supplement has been estimated at little over 50 percent and the take-up of Supplementary Benefit 1/ at approximately 70 percent; for example, see Atkinson (1984). Official estimates of the take-up of One Parent Benefit were 70 percent in 1981.

Empirically, it is difficult to establish the specific reason why take-up is so low. In support of the first explanation outlined above, Strauss (1977) found, using 1970 United State census data, that the presence of a Federal eligibility determination office, taken as a proxy for the availability of program information, yielded higher enrollment in a federalized program of aid to the blind, aged and disabled.

In support of the second explanation for low take-up due to the costs of claiming, Blundell, Fry and Walker (1988) find that take-up of the means-tested U.K. Housing Benefit is quite strongly sensitive to the level of entitlement. However, although the financial and other direct costs of the application process are relatively unproblematic to quantify, the difficulty of assessing the role of social stigma in claiming welfare has received much attention.

The rubric 'stigma' refers to the possible negative social-psychological consequences for recipients produced by means-tested government transfer programs. Two main sources of such stigma have been identified. First, recipients themselves might make negative self-characterizations based upon the fact that they are recipients of 'charity'.

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1/ Supplementary Benefit was renamed Income Support and restructured in April 1988.

Individuals may lose their self-esteem because they regard themselves as being failures in having to draw upon public support. Second, nonrecipients may have negative attitudes towards recipients and, as a result, recipients are treated differently from non-recipients by officials and the general public. Within the second category, there are two possible causes of such negative social attitudes towards welfare claimants. The first may be called statistical discrimination, where stigma surrounds welfare claimants because they are believed to possess fewer desirable characteristics, on average. 1/ Even for those claimants recognized as being deserving, such as the disabled, the presence of 'undeserving' claimants will result in stigma becoming attached to all recipients. The second cause for negative perception is that which Besley and Coate (1990b) refer to as the taxpayer resentment view of social stigma, where taxpayers are assumed to care about the poor to differing degrees and therefore one group will regard a particular benefit level as excessive (while the other regard it as too low) and generate stigma towards claimants.

In the statistical discrimination case, a rise in the proportion of claimants who are seen as 'undeserving' will increase the amount of stigma, but a rise in the benefit level has an ambiguous effect. 2/ In the taxpayer resentment case, if it is assumed that those taxpayers who regard the benefit level as too low do not affect the level of welfare stigma, an increase in the benefit level unambiguously increases stigma because it increases resentment among those who already regard the benefit level as excessive and it will as well increase the number of resenters.

There is some evidence that stigma is an important factor in reducing the rate of take-up of means-tested benefits. For example, Moffitt (1983), using data from the Michigan Panel on Income Dynamics for the female-headed population, finds evidence of a stigma-related disutility of participation in the AFDC program. Rainwater (1982) reports that surveys in the United States indicate that most people believe that the poor have only themselves to blame for their poverty and a study by the EC Commission suggest that similar negative views of the poor also exist in most of Europe.

In many means-tested support programs, the imposition of application and stigma costs has been used as part of a social control mechanism to encourage work and discourage dependence upon charity. For example, Rainwater (1982) considers evidence from the United States, United Kingdom and Sweden and concludes that "There is every reason to believe (although marshalling evidence that comes close to any standard of proof is difficult) that stigmatization functions quite effectively to reduce the use of income-

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1/ For example, welfare recipients may, on average, have a higher disutility of labor than nonrecipients and hence be regarded as 'lazy'.

2/ It will increase the number of undeserving claimants, but, at the same time, the new individuals attracted to welfare will have, on average, lower negative qualities.

tested programs." 1/ Such a screening function to discourage those non-needy from claiming is not necessary however, if there are other means to confine targeting to only those who lack the ability to support themselves. Yet if costs to receiving benefit do exist, poverty may not be completely eliminated for two reasons. First, it may discourage some of the poor from claiming and they will remain in poverty. Second, the value of the benefits to the recipients will be reduced by the amount of those costs and income will not be brought up to the poverty line. 2/

The above discussion suggests a number of policies which could increase the proportion of take-up. First, the safety net scheme should be well-publicized and information on the eligibility requirements and benefit levels should be readily available. In particular, households should be encouraged to reconsider their position whenever their circumstances change. Second, the costs of claiming should be minimized. The process of application should be made as quick, as simple and pleasant as possible. Stigma due to statistical discrimination would be reduced if only deserving recipients were eligible and stigma stemming from taxpayer resentment could be minimized by a low level of benefits. More generally, if the training and workfare requirements were seen as socially useful, the receipt of benefits might be viewed as meritorious in enhancing the nation's labor skills. Finally, to ensure against eligible cases being incorrectly refused benefit, the scheme could incorporate a claimant appeal mechanism to permit a review of doubtful judgments.

b. Problem 5: Administrative costs

A requirement facing all types of safety net schemes is the minimization of the costs involved in the implementation of the scheme. Such administrative costs are however, likely to be much higher under a means-tested, contingency or categorical scheme than under a universal program because much more information and many more checks on the accuracy of that information are required. In particular, means-tested programs are laden with the necessity to verify income and possibly a variety of circumstances such as the capacity to work, living arrangements or even where the father of a family is. For example, Kesselman (1982) reports that of seven United Kingdom programs, administrative costs as a percentage of benefits were 3.8 percent and 3.5 percent for the universal programs, but ranged from 5.2 percent to 15.4 percent for the means-tested programs. In the United States, the universal program of old age survivors, disability and health insurance incurred costs of 2.5 percent of benefits, while the means-tested public assistance and unemployment insurance programs incurred costs of 12.1 percent and 11.8 percent of benefits. In the extreme, the

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1/ See page 29.

2/ Strictly speaking, if the measure of interest is income and not utility, the nonmonetary costs of claiming are not relevant to the objective of poverty alleviation.

means-tested Veterans' Welfare program had a cost to benefit ratio of 95.2 percent.

Although means-tested systems do generate higher administrative costs than other schemes, many current income maintenance programs have high running costs because they have developed in a piecemeal and gradual process, over time. Many have resulted in the spread of programs administered by different levels of government which overlap in benefit payments and duplicate administrative requirements. Any scheme which amalgamated all the programs into one comprehensive package would reduce the duplication of tasks and lower costs.

c. Problem 6: Distortions in household structure

In defining the income unit for the determination of benefit eligibility, there is a fundamental conflict between the right of the individual to individual treatment and the desire to relate benefit payments to the totality of an individual's economic circumstances. The choice of the individual as the income unit has the advantage that it may reduce administrative complexity and would be neutral with respect to family and household formation. On the other hand, it is desirable to avoid payments to an individual who might be poor purely on an individual income basis, but has a high standard of living as a result of residing in a non-poor household.

Under a scheme which uses the household as the basis of assessment, some of the possible distortions could be minimized by ensuring that the benefit structure reflects the relative costs of living for different household sizes. For example, the increment in benefit payment that a poor individual might gain from living singly should just equal his or her additional living expenses from living separately from the rest of the household. In addition, although the use of the family unit has the advantage of being clearly defined by acts of law such as marriage, a single legal step might be the only difference between people in otherwise identical situations. In particular, the use of the household rather than the family as the income unit would be neutral with respect to the decision to marry.

There is, however, still an incentive for any individual who can more than support him or herself to live separately from those with no income. In the extreme, net income could be increased by nonworking wives living separately from an earning husband or working parents living separately from their children. 1/ In addition, a household basis of assessment may not be neutral with respect to fertility. Even if the allowance made for

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1/ In both of these cases, there is an additional cost to maintaining two households, but this would be covered by the benefit payment. This is in addition to the benefit providing support for the expenses of the poor that would otherwise have been paid for by the earning co-habitant.

children is set equal to the cost of maintaining the child, income within the household may be distributed unequally in favor of the parent and the parent may have a net gain in income from an additional child in the household. 1/

Although these distortions arise because the total benefit receipt will be increased, it is not certain that the household will be better off. Factors other than living standards affect the utility derived from certain living arrangements and there are many examples where families have chosen to sacrifice the opportunity of higher income in order to remain living together. More direct evidence on whether the level of transfer payments affects decisions on marriage and household structure is inconclusive. Perhaps the most popularly cited example of the distorting effect of transfers has been the growth of liberal welfare policies in the United States as the explanation for the rise of female-headed families and out-of-wedlock births. Murray (1984) argues that relaxed restriction and increasing benefits of AFDC enticed lower-class women to forego marriage or prolonged childlessness in order to qualify for increasingly lucrative benefits. 2/ However, Ellwood and Summers (1986) dispute the view that welfare was a major factor in the rising number of poor and show that on a time-series basis, much of the rise in poor, single-headed families occurred while real AFDC benefit levels were falling and that on a cross-sectional basis, the family structure statistics look much the same in high and low AFDC benefit states. Wilson and Neckerman (1986) argue that male joblessness could be the single most important factor underlying the rise in unwed motherhood among poor black women because the women are facing a shrinking pool of economically stable and marriageable young men. Bradbury (1978) concludes that the monetary incentives of income guarantee programs may marginally affect some people's decisions but more generally other factors might simply outweigh such incentives.

d. Problem 7: Other distortions in behavior

(1) Savings

If savings are undertaken for precautionary reasons against the unpredictable in addition to life-cycle considerations, any program which guards against substantial losses in income may reduce private savings. In addition, a means-tested program that includes savings as a source of income will discourage savings on a life-cycle or seasonal basis. For example, an individual with employment for only half of the year will not find it worthwhile to save while earning if it reduces the benefit payments when claiming support. In order to reduce this distortion, the means-testing

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1/ This may also be a reason for paying benefits in-kind, as will be discussed below.

2/ See also, for example, Hutchens (1979), who finds that an increase in AFDC guarantee leads to a small decline in remarriage by female heads with children.

could permit a certain level of savings to be exempt from the income calculations.

(2) Investment in human capital

Again, to the degree that the scheme provides protection against poverty, there is a reduced need for individuals to take actions to lessen the likelihood that they will find themselves in such a situation. For example, an income maintenance program reduces the incentive to invest in education and other forms of human capital in order to reduce the likelihood of poverty. In addition, it may encourage riskier forms of human capital investment. This may reduce the level of skills available and increase the number of poor.

However, workfare and training requirements may offset this distortion to some extent by making the reliance on the income maintenance program less attractive.

(3) The decisions of firms

The existence of a safety net insuring against poverty may increase the willingness of firms to lay-off workers during economic recessions or when production is no longer profitable. 1/ Such willingness to release labor may enhance the ability of an economy to switch resources between different types of industry and hence aid a restructuring process. To the extent that workfare and training requirements reduce the attractiveness of government support, firms may be more reluctant to make workers redundant.

6. Benefits in cash versus benefits in kind

Benefits in kind include such transfers as food stamps and housing and medical subsidies which the recipient can use only to consume the good or service for which they are intended. Such types of payment have a number of advantages over payments made directly in cash.

First, there may be paternalistic or externality arguments for payments in kind whereby the contributors prefer the transfer to be spent on a certain type of good. This may be because the contributors believe that it will increase the welfare of the recipient even though the recipient may disagree, for example, food stamps may be paid in the belief that food will be better for the recipient in the long run than the recipient's own choice of, say, alcohol, for an equivalent cash transfer. Or, it may arise when the consumption of a particular type of good by the poor confers positive

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1/ In particular, unions may be more willing to accept a reduction in the size of the labor force and workers may put up less resistance to the termination of employment if they know that their members will be protected against poverty.

side-benefits to the non-poor, for example, the provision of health care to the poor may reduce the prevalence of contagious diseases and thus create a healthier environment for the non-poor. Both of these arguments assume, however, that the good cannot be resold and that the poor are not deterred from taking up a benefit by the fact that they would not normally choose to consume it.

A second advantage of benefits in kind is that they may be used to discriminate between those genuinely eligible for support and those who are impostors. (For example, see Nichols & Zeckhauser (1982) or Blackorby & Donaldson (1988)). If there is a good with a negative income elasticity of demand--for example, lower quality housing--then provision in kind of the amount chosen by the eligible group would act as a deterrent to impostors. Again, this assumes that the good cannot be resold. More importantly, if the program already ensures targeting toward the truly needy, there are no grounds for in-kind transfers on the basis of this argument.

A third argument in favor of benefits in kind is that certain goods may encourage labor effort and hence self-support more than others. As Murray (1980) points out, a paid vacation to Bermuda will induce a different labor supply response than an equivalent cash grant because the subsidized good is particularly complementary with leisure. Conversely, subsidized day care will likely increase the labor supply response. Or the provision of education may reduce the probability of the claimant returning to welfare in the future. To the degree that self-support benefits the poor directly, benefits in kind may enhance the welfare of the poor, but there is also an externality argument in that it reduces the burden of poverty alleviation for the non-poor.

Finally, the distribution of income within the household may mean that children do not receive adequate support if the parent receiving benefit seeks to maximize his or her own utility without due regard to the child's welfare. In addition, the parent may not be well informed of the child's best interests. In such cases, in-kind transfers directed towards children, such as education or health services, may better guarantee the child's well-being than cash payments to the parent.

There are also a number of disadvantages of benefits-in-kind, however. Some may be more stigmatizing to recipients than cash transfers because they are more obvious. The desire to keep stigma at a minimum to encourage complete take-up has already been emphasized. MacDonald (1977) reports that the purchase requirement (now eliminated) in the U.S. Food Stamps program had a much larger effect on keeping people out of the program than on changing people's consumption habits. In addition, a transfer program in kind is more costly to administer than cash transfers.

Overall, there may be some case for providing benefits in kind targeted towards children, but the advantages of making transfers in kind more generally may be limited by the possibility of resale and it is not clear

that the benefits would outweigh the disadvantages of increasing stigma and higher administrative costs.

7. The rejection of a scheme of social insurance

A scheme of social insurance, whereby individuals pay contributions when they are earning and claim benefits conditional upon those contributions during times of poverty, does not achieve the desired objectives of an income maintenance program.

First, there may be those who remain in poverty because they have made none or insufficient contributions to the scheme and are not entitled to benefit payments. Indeed, Atkinson (1987) reports that a sizable number in the United States are still dependent upon means-tested benefits, indicating that the social security system has not been universally successful. Thus, a social insurance system does not fulfil the objective of complete protection.

Such a scheme would also make payments to the non-poor and at a level to bring the poor over and above the poverty line, as described earlier for a contingency-based system and illustrated in Figure 4. Thus, it does not achieve the objective of minimizing leakage.

There is also the difficulty, as under private insurance, that individuals may alter their behavior if the costs of such events as unemployment or retirement are lower. As discussed above, such work disincentives may also arise under a pure minimum income guarantee program, but it may be more difficult to enforce policing against moral hazard (for example, in the form of work requirements) if benefit payment is based upon entitlement from previous contributions.

Finally, the administration of a social insurance scheme would require the collection of contributions and the maintenance of individual records on eligibility, although means-testing of income would not be required. Overall, as Roberti (1984) argues, the administration of a social insurance system is cumbersome, complex and expensive compared to other forms of income maintenance.

The underlying reason why a social insurance scheme is not optimal in the conditions considered here, is that such a scheme aims to reduce economic insecurity rather than to reduce poverty during a transitional period. When many of the existing schemes of social insurance were initiated, the aim was to replace a normal flow of earnings, which, for some reason, had been interrupted, and poverty was implicitly treated as just a special case of economic insecurity. However, even the elimination of economic insecurity may not eliminate poverty. Many poor people have not suffered a significant, sudden reduction in their normal earnings, but are poor because the household does not have the capacity to provide, what in society's judgment, is a minimally acceptable standard of living.

## III. Description Of a Safety Net Scheme

The following description is of a safety net scheme which aims to incorporate the features argued to be desirable in the previous section.

### 1. An overview

The scheme is based upon a mixture of means-testing and categorically-assigned aid. To be admitted to the system, any individual or household must have an income level below the specified minimum level and hence the first stage is an approximate means-test. In the second stage, all individuals are divided into two categories of those 'unemployed but able to work' and those 'working or unable to work'. Individuals in the first category are assigned to 'A' track and households whose members are all in the second category are assigned to 'B' track. All those in the A track receive a standard minimum benefit, with allowances for dependents, and follow a course designed to give them every incentive and ability to enter or re-enter employment. Those in B track are means-tested on a household basis and a level of benefit is paid sufficient to bring their income up to an established minimum level.

Figure 8 is a diagrammatical representation of how the scheme operates and will be discussed in detail in the next three subsections. Other features of the scheme will also be described.

### 2. Entry and assignment to track

All individuals and households who believe that they may be eligible for aid for whatever reason, be it unemployment, sickness, disability, old age or just insufficient income, apply through the same process. All claims are dealt with by the same department under the general auspices of the social safety net and all potential applicants make their claim at the same place. Hence, there is no confusion about where an application for entry into the system or a claim for benefits under it should be made or which government department holds responsibility for the particular situation.

The first step in the application process is for applicants to provide the information requested in the three questions that follow. Before moving to the questions, however, a definition will be given of the terms 'income', 'household,' and 'able to work,' the criteria of which will determine candidates' eligibility for benefits.

Income includes earnings from work, returns on investments and savings, pensions, rents, and any other sources of income. Savings above a certain minimum may also be included as income.

The household consists of:

(1) All relatives living in the same dwelling except (a) children of the claimant under the age of, say, 25 who are either working or receiving A track benefit; and (b) parents of the claimant who are receiving a retirement pension; and

(2) All non-relatives living in the same dwelling except (a) owner of the property who are receiving rent from the household; (b) those paying their share of the rent to a third party; and (c) those paying a rent to the household (where the rent is then counted as household income).

It should be noted that the household may consist of just one member and, hence, when household is referred to in the track assignment section and in the B track, it may mean one individual.

Able to work will include everyone other than those considered unable to work which will comprise:

(1) The elderly, defined as those above a specific age, for example, 65 years.

(2) The sick and disable who are considered unfit to work.

(3) Mothers of children younger than a specific age, for example, under the age of 5 years. Whether wives or mothers should work, may be a subject of debate, however. 1/

To some extent, the definition of those expected to work will depend upon the judgment of the society concerned.

Applicants would begin with question 1: is individual or household income below the B level (as shown in Figure 8). 2/ The individual entering the system can elect whether to be assessed on an individual basis or on a household basis. If the claimant passes the test on both grounds, it is irrelevant which is chosen, but if only one of the measures is below the B level, the individual will claim on that basis. The choice is provided in order that an unemployed individual need never be required to provide any information on the household circumstances for administrative

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1/ In the case of mothers, traditionalists and many child development experts might feel that young children are better off cared for by their mothers. Others might argue that mothers have as much right as any other individual to undertake paid work and that the benefit system should not distort their work choice. In the absence of a consensus, evidence on labor force participation could be used to reach a social norm.

2/ The B level is defined specifically below, but it roughly corresponds to a level of income considered adequate for the long term.

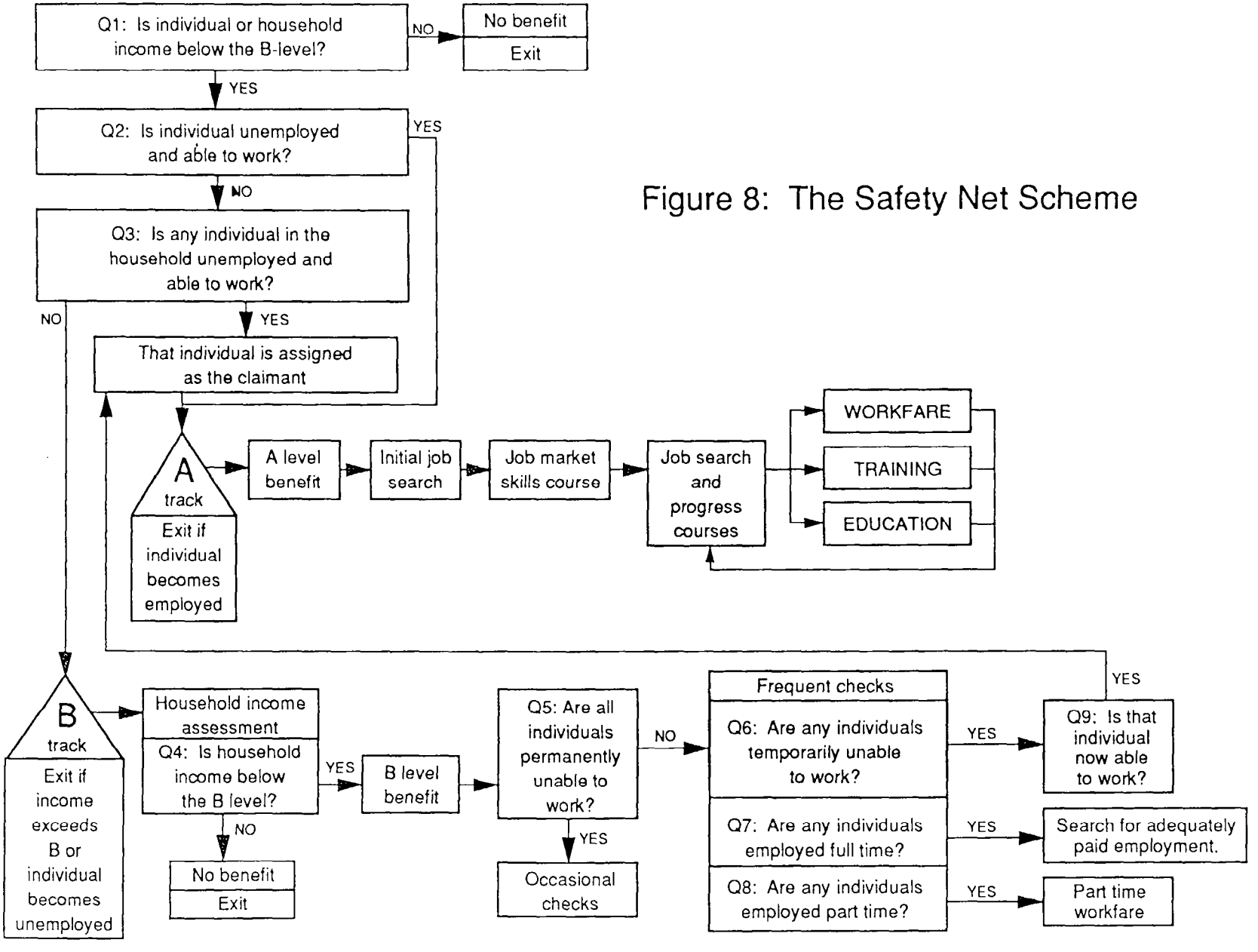


Figure 8: The Safety Net Scheme

simplicity, 1/ but at the same time, a poor household with one non-poor individual will not be neglected. The income assessment at this stage is a very approximate, quick calculation for, where it is required, more rigorous means-testing will be carried out later. Those with an income above the B level on both measures are not eligible for aid and exit from the system. Those with income below the B level on either measure move on to question 2.

Question 2 asks whether the individual is unemployed and able to work. If an individual is unemployed and claims to be unable to work, the responsibility is placed upon the individual to show that he or she is unable to work. For example, if the claim is based made on the basis of disability, a doctor's certificate or other medical verification should be provided. In many cases, this might only require evidence of the claimant's age or the responsibility for young children. Individuals designated as unemployed and able to work are categorized as 'unemployed' and move into track A. Individuals who show that they are unable to work are categorized as 'non-workers' and, together with the 'poor employed', move on to question 3.

Question 3 asks whether any individual in the household is unemployed and able to work. Track B is designed for households, not individuals, with inadequate income and the requirement to enter track B is that every individual in the household is either employed or unable to work. The reason for the household basis of assessment is to ensure against any work disincentives for any other individuals in the household who might be unemployed. For example, if non-working wives with unemployed husbands were eligible for B track benefit, the husband would face a disincentive to work because his wife's benefit would be reduced as a result of any additional earnings. If any individual in the household other than the original claimant is found to be unemployed, then that individual must enter the system as an unemployed individual in track A and the household is no longer assessed on a household basis. The way in which other members of the household (including presumably the original claimant) will receive support is through the unemployed individual making a claim for dependents in the A track.

3. 'A' Track - The unemployed but able to work

The 'A' track of the safety net scheme is for individuals who are unemployed and able to work. If at any time the individual becomes employed in either part-time or full-time work, he or she automatically exits from the A track. If the income of the individual or household is then still below an adequate level, the household re-enters the system and is assigned to B track, assuming that there are no other individuals in the household who are unemployed. In the A track, the individual receives a flat-rate

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1/ It is also to avoid any incentive for an unemployed individual to leave a non-poor household.

benefit with an allowance for dependents. The level of this benefit is discussed below.

a. Initial job search

For an initial period after every entry into track A, the claimant is permitted to undertake an independent job search, to allow time for those who are between jobs to secure new work. Since it is desirable for participants to progress to the next stage--the job market skills course--and to begin course work at the same time, course offerings are recommended in cycles of 4 weeks. The timing of the initial job search is therefore planned to coincide with the next course cycle. Thus, the initial job search period would typically last from 3-7 weeks, 4 weeks being average. 1/

b. Job market skills course

After the initial job search, all A track benefit recipients must participate in the job market skills course, which is designed to teach the basic skills of job search and provide general information about how to attain employment. This would include such skills as knowing how to find available work, how to make applications, how to complete a resume, interview techniques, etc, and would foster a positive attitude to work through encouraging career planning and consideration of the type of work that would be desirable. The course would last for a period of four weeks and occupy at least 40 hours per week. 2/3/

c. Job search and progress courses

Following the job market skills course, 'A' track participants then undertake a period of twelve weeks of independent job search with a one-week progress course every fourth week. The progress courses should be similar to 'job clubs', where an intensive effort of supervised job search is made and facilities such as lists of vacancies, newspapers, free phones and interview practice may be provided. During each course, a check should be made that each participant has been genuinely searching for work during the

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1/ The time schedules given in this section are intended only as guides and may be varied according to economic circumstances. It is, however, important to minimize the claimant's free time in order to create the correct incentives. Therefore as little time as possible should be given to the independent job search. In any case and at any stage, priority would be given to the attainment of employment over the program requirements.

2/ Forty hours a week is assumed to be the maximum number of hours that individuals are expected to work and therefore is the maximum amount of time that an individual might be expected to fulfill with course, work or training requirements. This could be varied according to an economy's norms.

3/ It would be important to ensure that course participants are actively involved in job search and do not use the time as leisure.

intervening period, for example, by the provision of a list of applications and interviews, and individualized advice given on possible improvements. Further direction could also be given in aiding recipients to consider the type of work they would like to undertake and the required education and skills. The progress courses should last for 40 hours each week.

d. Training, education and workfare

During the third and final progress course, the claimant would be appointed to a training, education or workfare assignment. The individual would be counselled on the available options and encouraged to make suggestions of his/her own. In making the final decision, attention would be given to the individual's preferences, the places available and the value of the benefits that might be derived from the assignment for both the participant and society more generally.

The training or educational course may last between three months and two years and should occupy at least 40 hours per week. Individuals should only enter training programs at the beginning of a new course and hence there may be a significant waiting period to begin training. During this interval, the individual should be given a workfare assignment.

Workfare programs, where possible, would consist of productive work, although this is not an essential condition of their usefulness. Workfare is intended not to be busy-work, but should attempt to provide useful work experience and preparation for employment. The workfare assignment should last for six months and occupy at least 40 hours per week. When requested, time would be permitted for certain job search activities, such as, job interviews. 1/ In addition, in making workfare assignments, care should be taken not to displace other workers from employment. 2/

At the end of the training, education or workfare assignment, the claimant begins the cycle again and undertakes another twelve weeks of job search and progress courses. This is to provide ample opportunity to attain employment. If this is not achieved by the end of the twelve weeks, the individual is once more appointed to a training, education or workfare assignment.

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1/ Checks could be made to ensure that the workfare participant is spending the time genuinely attempting to attain work, for example, a phone call could be made to an interviewer to verify the interview.

2/ There is a narrow dividing line between that which might be called workfare and state employment. The difference may lie in the motivation for employment. In the case of state employment, it may be essential for the fulfillment of the state's functions, but the primary aim in the case of workfare is to reduce unemployment and for the workers to return eventually to the private sector. In reality, it may be impossible to distinguish between the two.

Training and education are both expensive options and should only be selected if the individual is willing and able to participate fully and the resulting skill is in demand and useful to the economy. To assess which skills are likely to be in demand requires more than just a consideration of current vacancies; but a longer-term view on the general direction of the economy and future demographic changes and technological advances will need to be taken into account. While complete manpower planning would not be recommended, it would be beneficial if a centralized agency could research the question of future manpower requirements and disseminate concrete suggestions to the offices making A track training decisions.

e. Re-entry to track A

An individual is considered as having re-entered track A, that is, begun a second spell of unemployment, if he or she has been in receipt of A track benefit in the last two years and during that spell of unemployment completed the jobs market skills course. For a re-entrant, the course followed along track A is modified according to the type of re-entrant. Upon the first re-entry, the claimant begins at the job search and progress courses. Upon the second or more re-entry, the claimant begins at the third and final progress course before moving directly to a training, education or workfare assignment.

4. 'B' Track - The 'poor' working or unable to work

The 'B' track of the safety net scheme is for households whose income is below the adequate level and all of the members of which are unable to supply any additional labor. The household exits from B track if its income rises above the B level, i.e., if any existing household member becomes unemployed and able to work, or if a new addition to the household is unemployed and able to work. If income rises sufficiently, the household is no longer in need of support and leaves the scheme altogether. If a member becomes unemployed, that individual is assigned to the A track and the household receives support as dependents of the A track benefit recipient.

The first step in the B track is a detailed assessment of total household income. Question 4 asks whether the household income is below the B level and if it is not, the household is deemed as not in need of support and exits from the scheme. If the income is inadequate, a benefit is paid sufficient to bring the household up to the B level of income.

Question 5 asks whether all individuals in the household are permanently unable to work. For example, for the elderly and those permanently disabled there is little doubt that they will ever be considered suitable for compulsory employment. 1/ On the other hand, mothers who are exempted from work because of young children will obviously become potential

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1/ This is not to say that they are unable to work if they so choose, but that they will never be expected to have to work.

employees when the children have grown to a sufficient age and hence would not be considered permanently unable to work. Cases in between these two extremes might be more difficult to assess, for example, an individual who frequently has a recurring ailment. Again, the responsibility should be placed on the individual to show that the inability to work is permanent. For households whose members are all permanently unable to work, only occasional checks need be made to ensure that the circumstances or income are unchanged. For households whose members are either working or may be able to work in the future, frequent checks would be made on the income and situation of the household, and questions 6, 7 and 8 should be asked regularly. In particular, benefit would be paid only during the time period in which the household meets the eligibility requirements and would be terminated the moment those requirements were no longer met. 1/

Question 6 asks whether any individuals are temporarily unable to work. For those who are, question 9 then asks whether they are now able to work. Previous nonworkers who become able to work are reassigned to track A and the household leaves track B as described above.

Question 7 asks whether any household members are employed full-time. For those who are, consideration is given to whether they are fully fulfilling their earnings potential and whether they could be contributing more to household income. If there is a serious mismatch between the actual earnings of a claimant and his or her earnings potential, that individual may be required to show evidence of attempting to attain employment with a pay level corresponding more closely to that expected for the individual's qualifications and experience. There is also an incentive for employers of full-time working individuals in households claiming B track benefit to reduce the wage rate. Because any such reduction will be made up by the benefit, the worker will be indifferent to the wage rate. As a result, a check should also be made that the wage rate received by the worker is fair and not abnormally low for the type of work.

Question 8 asks whether any household members are employed only part-time For those that are, a part-time workfare assignment is required in order for the household to remain eligible for the B track benefit. Those able to work must fulfil a workfare assignment of the difference between 40 hours per week and the number of hours that they are working.

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1/ This is to minimize leakage. For example, in the U.K., the means-tested benefits of Family Income Supplement and Housing Benefit have been paid to those above the poverty line, as they are assessed on an income over a short period but the benefits continue to be paid out over a much longer time.

## 5. Coverage and conditions of the safety net

### a. Benefit levels

The level of support given in both tracks would be related only to current needs and not to any past earnings level or standard of living. The benefit paid in track A would be that considered to be the income required to support the absolute minimum standard of living in the short run, that is, to pay for basic food, clothing and shelter, but to make no allowance for the expense of durable items or luxuries. The benefit paid in track B would provide for an 'adequate' standard of living in the long term, including some allowance for purchases of durable goods and luxuries. The B level of benefit would be set at a premium above the A level for three reasons. First, the B track benefit is intended for the long term, whereas the A track benefit is intended as only a short term measure. Second, the A track benefit is not assessed on a household basis so there is a risk of leakage which does not arise with the B track benefit. Third, this will encourage unemployed workers to undertake some employment in the private sector, even on a part-time basis in order to qualify for the B track benefit.

All those in A track receive the same flat rate benefit, but an allowance is paid for dependents. There is no household income assessment and only the number of relevant dependents need be calculated. A relevant dependent is a household member who has no independent source of financial support. If a dependent individual also derives support from other sources, then the claimant can only claim a fraction of the allowance, proportional to the number of sources of support, for that dependent. For example, if an unemployed man has three children and a working wife, he may claim an allowance for one and a half children. The rate of allowance for a dependent should be set according to the same basic costs of living used in determining the A track benefit above, allowing for the fact that there are economies of scale in living in one household. Lower rates would be given to child dependents with a slight increase for 'older' children to allow for the fact that a child's needs increase with age. 1/ Examples of benefit rates and calculations are shown in Appendix A.

All households in track B receive a benefit which brings the total household income up to the B level, but not beyond. Although this does create a marginal tax rate of 100 percent, there are few adverse incentive effects because no more work can be undertaken and any reduction in current labor supply will result in part-time workfare or reassignment of the household to track A.

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1/ There is also an argument that support should be scaled inversely to the age of the child because older children require less parental input and hence allow parents greater earnings opportunities. However, under this scheme, the work disincentives for parents of older children have already been minimized.

Some allowance could also be made for special needs, when there are circumstances beyond the claimant's control which mean that he or she faces an unusually high cost of living, such as expensive medicine, special diet or high heating costs. The need would be assessed in terms of fulfilling three requirements: it should be truly unusual in that only a small proportion of the claimant population faces such a cost; it should be an unavoidable necessity for the claimant; and the amount in question should not be trivial.

b. Penalties for non-compliance

If an individual refuses to provide sufficient information or does not complete satisfactorily any of the requirements, all benefits would be withdrawn immediately. All claimants would be made aware of this fact and given one warning and an opportunity to comply before the sanction is imposed. 1/

c. Policing against fraud

In order to ensure that households and individuals are correctly reporting their income, their employment situation and their household structure, random checks or audits would be made to verify the facts reported. As the number of checks need only be a small proportion of the number of claimants, the manpower requirements and other costs are lower than in a system which checks every claim as it is processed. Given the low probability of fraud being discovered, the penalties would be set very high, including criminal prosecution. 2/ Much publicity could be given to the penalties and the prosecutions made, in order to discourage potential fraudulent claims and to reassure the public that the system is not being abused. The checks or audits themselves however would be carried out as

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1/ There may be some question of whether such threats of punishment are credible because the sanctions would violate the objective of poverty alleviation. However, the implicit social contract underlying the scheme is that support will be provided only to those who make every effort to support themselves and are truly willing to work. If this reciprocal requirement is not fulfilled, the obligation to provide poverty alleviation may no longer be binding.

2/ The difficulty with such a system of sanctions is that it depends upon the threat of punishment being credible and there are two possible points of equilibrium. First, if a large number of claimants break the rules but only a few are sanctioned, the punishments may seem unfair and there may be pressure not to enforce them. As a result, the threat would not be credible and fraud would be widespread. In the alternative case, if most claimants comply, there may be little objection to the harsh punishments for the few who break the rules and the threat would remain credible with little fraud occurring. Therefore, it is recommended that the credibility of the threat of sanctions be established quickly before cheating has had an opportunity to become widespread.

pleasantly as possible, based upon the initial assumption that no wrong-doing has occurred.

d. Claimant appeal mechanism

Although it is hoped that the simplicity of this system would minimize the number of errors, any administration might invariably make mistakes in assessing claims and there should be a mechanism by which claimants could make appeals against judgments made on their eligibility for benefits. This appeal mechanism would also be used to ensure that the A track courses, training and workfare assignments are provided to a satisfactory level. The working unit would have the means to reverse a decision quickly and easily and its existence would be well publicized. Nevertheless, measures should also be taken to ensure that it does not become an automatic recourse for every rejected claim.

e. Practical features

The claiming procedure should be made as simple and pleasant for the claimant as possible, for example, by minimizing the number of forms to be completed, by making the application procedure as quick as possible, and by the staff being encouraged to view the system as a public service. As has already been indicated, potential claimants would be clearly informed of how the whole system operates. In particular, stress would be placed upon the requirements of the A track and the penalties for non-compliance or fraud.

More generally, the existence of the scheme would be well publicized, together with the benefit levels, in order to ensure that eligible people come forward to make claims. The prevention of any sort of social stigma becoming attached to claimants would be given a high priority. Track B would be presented as support for those who, through no fault of their own, are deemed as eligible for society's aid. Track A should be presented as a labor service designed to aid the unemployed in finding employment and in making career investments. These services should be emphasized as a positive feature, serving to improve the nation's labor skills and the efficiency of the labor market in the interests of both the individual and society. Its importance could be especially highlighted during a period of restructuring in an economy, such as the case of a centrally-planned economy moving to a market economy.

6. Policy options

A number of policy options can be selected to modify the scheme according to the degree of generosity desired and the amount of assistance required to improve the efficiency of the labor market. These are listed in Appendix B.

7. The merits of the scheme

The scheme described above goes a considerable way toward achieving the objectives of poverty alleviation and minimizing leakage, work disincentives and administrative costs.

To the degree that eligible claimants are not discouraged from applying, the scheme eliminates poverty because all those below the poverty line are entitled to support sufficient to remove them from poverty, conditional upon the fulfillment of the reciprocal requirements. For those who are unwilling to complete these requirements, poverty alleviation will not be achieved.

The only leakage in the scheme is A track benefit paid to individuals with some other individual income (although this will be below the B track level) or living in non-poor households. Given the low level of the A track benefit and the fact that unemployment may be highly correlated with poverty, however, this may not result in a large amount of leakage.

As regards work incentives, if an individual has an incentive to claim benefit, then, in most cases, there is a greater incentive to undertake private sector employment and individuals who are not genuinely willing to work will not register as unemployed. 1/ However, low-earning unemployed members of non-poor households have an incentive to remain in A track rather than accept private sector employment and be means-tested on a household basis in B track. In addition, those designated as 'unable to work' and assigned to B track may be willing to work, but face a 100 percent tax rate on their benefit and a large disincentive to working. 2/

In comparison with many current social safety net schemes, the proposed scheme is uncomplicated. Although benefits are means-tested, the process is carried out comprehensively only once and only for those in B track. The benefit calculation is very simple, particularly for the flat rate benefit in track A. The only complicated administration is the determination of the 'household', the categorization into 'able to work', and the determination of whether the poor employed individual has attained the highest paying employment possible. Overall, the comprehensiveness of the scheme and the clarity with which it determine benefit eligibility, the level of entitlement and the reciprocal requirements should ensure that the administrative costs are not exorbitant.

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1/ Although it is recognized that during individual job search in the A track, the claimant is not occupied full-time, the claimant does face the leisure constraints described in Section II for the vast majority of the time in A track.

2/ For example, mothers with young children and high earning opportunities may not find it worthwhile to work.

The household is used as the income unit in the B track in order to ensure that benefit payments are related to need and that they do not affect marriage decisions. The individual is used in the A track for administrative simplicity and to reduce the incentive for unemployed individuals to separate from non-poor households. Nevertheless, incentives to alter household structure in order to attain higher total transfer payments still remain. First, in a poor household there is an incentive for an unemployed individual to leave in order that the remainder of the household may claim B track benefit. This might be true for an unemployed adult child in a poor household. Second, there is an incentive for a poor individual unable to work to leave a non-poor household in order to qualify for B track benefit. This might be true of an elderly retired parent living with working children. 1/ As explained in the previous section, there will always be an incentive for the poor to live separately from the non-poor when any household assessment is used. In addition, there is some incentive for women to have young children in order to qualify for the B track and hence be eligible for benefit without any reciprocal requirements.

## IV. Calculation Of The Cost Of The Social Safety Net

In estimating the costs of an income maintenance program, information is required about the size of the poverty gap, the costs of running the scheme and its related services and how these figures might change under schemes of different incentives. In the section 1 below, it is assumed, somewhat unrealistically, that the necessary data are readily available. In section 2, the potential costs for Poland for the year 1990 are estimated. Although it is necessary to make a number of assumptions about income and demographic statistics and behavioral effects because of the lack of sufficient information, the example using Polish data demonstrates how a very approximate budget cost may be estimated.

### 1. General method of calculation

A general method for calculating the costs of the scheme proposed in Section III is outlined in the 15 steps below. It is assumed throughout that the take-up of benefit is 100 percent and that all those eligible and willing to fulfill the reciprocal requirements are not deterred from participating by a lack of information, stigma or any other costs of claiming. If this assumption were relaxed, the total cost would unambiguously be lower, but complete poverty elimination would not be achieved. It is also assumed that an official poverty line and the levels of benefits for both A and B tracks have been determined. 2/ Finally, no

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1/ For these reasons, the household definition excludes unemployed children and retired parents, who may claim benefit in their own right.

2/ For simplicity, it may be desirable to set both the A and B track benefit levels at the poverty line and to exclude the premium on the B track benefit.

allowance is made for behavioral effects in terms of household structure or longer-term factors such as investment in human capital and savings. The effects on work incentives are considered after step 4.

Step 1: Calculate the number currently registered as unemployed.

Step 2: Calculate the number currently registered as unemployed who have an individual income above the poverty line.

Step 3: Calculate the number of individuals living in poor households who would be categorized as 'able to work', but who are not working or registered as unemployed. 1/

Step 4: The number of individuals eligible for the A track, assuming no change in behavior, is the registered unemployed, minus the non-poor registered unemployed, plus the poor non-registered unemployed.

It is now assumed that the imposition of a new income maintenance scheme has behavioral effects, although the nature of these effects will depend upon the type of policy currently in place. The decisions of whether to accept employment, to register as unemployed, or to leave the labor force will depend upon whether the new scheme makes the option of registering as unemployed more attractive (step 5) or less attractive (step 6) than the previous policy.

Step 5: Calculate the number of individuals who now prefer to register as unemployed to being employed, that is, the number who quit work as a result of the new scheme.

Step 6: Calculate the number of individuals who now prefer to work or leave the labor force than register as unemployed. 2/

Step 7: The number of eligible A track claimants is the number currently registered as unemployed either plus the new registrants or minus those encouraged to leave the program by the new scheme.

Step 8: Calculate the number of dependents for A track claimants.

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1/ For example, non-working wives with no young children may form a substantial part of this group.

2/ There is an asymmetry between steps 5 and 6 because all potential new poor labor force entrants have already been counted in step 3 and so may not be added again in step 5. In step 6, some of those counted as unemployed in step 3 will be removed as those unwilling to fulfill the requirements. In reality, these are individuals who are 'able to work' but not currently in the labor force and who will not register as unemployed under the new scheme because of the reciprocal requirements.

Step 9: The total cost of benefit payments in A track is the sum of the number of claimants multiplied by the benefit level and the number of dependents multiplied by the dependent allowance.

Step 10: Calculate the number of households whose pre-transfer income is below the poverty line.

Step 11: Calculate the number of poor households that contain an unemployed individual who would be categorized as 'able to work', even if that individual is not registered as unemployed.

Step 12: The number of households in B track is the number of poor households minus the number of poor households with a member eligible for A track.

Step 13: The total B track benefit cost is the number of B track households multiplied by the difference between the household poverty line and the average income of the households.

In addition to the direct costs of benefit payments, it is important to consider the costs of providing the services and running the scheme.

Step 14: Calculate the cost of the services provided including training and education costs, workfare costs and the costs of the job market skills course and the progress courses. The number of participants in each of these will depend upon both the number of individuals in A track and the duration of unemployment. In particular, it should be noted that for any given stock of unemployment, the longer the average duration of that status, the greater the proportion of persons who will be involved in training, education and workfare rather than in job search, and the higher the cost of the services.

Step 15: Calculate the administrative costs of the scheme. How these compare to alternative schemes will depend upon such elements as the degree of means-testing involved, the amount of complication, and how many 'optional features' are included such as policing against fraud and the claimant appeal mechanism.

Step 16: The total budget is the sum of the A track benefit payments, the B track benefit payments, the costs of providing the services and the administrative costs.

2. Calculation for Poland for 1990

The information available for Poland for the year 1990 is not sufficient to produce an accurate estimate of the potential costs of such a scheme as that described in Section III. Nevertheless, the Polish example is an interesting case because it is an economy beginning to undergo significant restructuring and is in particular need of a program to protect

the economically vulnerable groups from poverty and to aid the redirection of labor resources towards new lines of production. A description of the current policies in Poland is given in Appendix C.

In the absence of sufficient information, it is necessary to use preliminary data to calculate the hypothetical budget costs, to estimate a number of the parameters and to make certain assumptions. Thus, the resulting figures should be treated with extreme caution and seen only as indicators of the magnitudes of real costs.

Two measures of the poverty line will be considered. The first is the 'social minimum'. This measure is calculated quarterly by the Polish Institute of Labor and Social Affairs and is based upon a basket of goods considered necessary for subsistence, with an additional ten percent for discretionary household spending. The second is the level of the minimum benefit in the current Labor Fund program, which is set at 35 percent of the average wage. In comparison to poverty lines in other industrialized countries, the first measure is a high poverty line relative to the average wage, 1/ and it is quite likely that the level would be lowered if it took on any operational significance. On the other hand, it is not clear that 35 percent of the 1990 average wage is sufficient for subsistence. Thus, the poverty line chosen would probably lie between these two extremes and the two cases used may be considered as upper and lower bounds on the range of possibilities. It is assumed for simplicity that the A and B track benefits are set at the same level, with no premium for the B track.

Following the general method of calculation set out in the preceding subsection, estimates using Polish data can now be presented.

Step 1

Table 1 shows the numbers registered as unemployed for January to July and the projected unemployment for the remainder of 1990. Unemployment levels for each month are calculated on the assumptions of an average duration of unemployment of 6 months and of 12 months.

Step 2

Unemployment in Poland is highly correlated with poverty as relatively few individuals have a high earning spouse and very little income is derived from sources other than wages, agricultural income or social benefits. It is therefore assumed that none of those registered as unemployed have an individual income that is above the poverty line.

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1/ In 1987, the social minimum was 38.6 percent of the average wage (Milanovic 1990), but is a higher proportion of the average wage in 1990, partly as a result of the fall in real wages in the first quarter of the year.

Table 1. Poland: Projected Unemployment, 1990

(In thousands of zlotys)

| | Current Scheme 1/ 2/ | | | Proposed Scheme 3/ | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 70 percent rule | | | 85 percent rule | | |
| | | Period of Unemployment | | | Period of Unemployment | | | Period of Unemployment | |
| Month | Flow | 6 months | 12 months | Flow | 6 month | 12 month | Flow | 6 month | 12 month |
| January | 56 | 56 | 56 | 39 | 39 | 39 | 48 | 48 | 48 |
| February | 96 | 152 | 152 | 67 | 106 | 106 | 82 | 130 | 130 |
| March | 115 | 267 | 267 | 81 | 187 | 187 | 98 | 228 | 228 |
| April | 85 | 351 | 351 | 60 | 247 | 247 | 72 | 300 | 300 |
| May | 149 | 500 | 500 | 104 | 351 | 351 | 127 | 427 | 427 |
| June | 68 | 568 | 568 | 48 | 399 | 399 | 58 | 485 | 485 |
| July | 187/ 131 | 699 | 699 | 131/ 92 | 491 | 491 | 159/ 111 | 596 | 596 |
| August | 200 | 803 | 899 | 140 | 564 | 631 | 170 | 684 | 766 |
| September | 250 | 938 | 1149 | 175 | 658 | 806 | 213 | 799 | 979 |
| October | 200 | 1053 | 1,349 | 140 | 738 | 946 | 170 | 897 | 1,149 |
| November | 150 | 1054 | 1,499 | 105 | 739 | 1,051 | 128 | 898 | 1,277 |
| December | 100 | 1086 | 1,599 | 70 | 761 | 1,121 | 85 | 925 | 1,362 |

Sources: IMF and World Bank staff.

1/ The figures for January to July are actual unemployment numbers, with the monthly flows calculated from the monthly stock figures. The two July flow figures correspond to the assumptions of average 6 month and 12 month unemployment duration.

2/ The flow figures for August to December are based upon official estimates.

3/ The flows for the scheme proposed in the paper are simply 70% and 85% of the flows estimated under the current program.

Step 3

The labor force participation rate is very high in Poland, being approximately 90 percent for males aged between 20 and 64 years and 75 percent for females aged between 20 and 60 years. 1/ Thus, the number of individuals not working or registered as unemployed and who are able to work is very small. Therefore, this figure is assumed to be zero.

Step 4

The number of individuals eligible for the A track, assuming no behavioral changes, is simply the number currently registered as unemployed.

Step 5

The current Polish policy offers benefit levels above or at the minimum wage with no reciprocal requirements. The scheme proposed in the present paper includes course, training and work requirements in return for a benefit level that might be lower or slightly higher than the current program. Under these circumstances, it is unlikely that many individuals who find it preferable to work under the present program would find it preferable to register as unemployed under the proposed alternative scheme. Therefore, we assume that the number of quitters from work is zero.

Step 6

It has been estimated that approximately 30 percent of those registered as unemployed since the beginning of the year are not, in fact, willing to work. A proportion of the unemployment has also resulted from 'other separations' rather than being 'laid off', which suggests that the current scheme may have encouraged some voluntary quitting from work. Given the lower attractiveness of the scheme proposed here, it is unlikely that such a large number would have found it beneficial to quit work. It is also clear that the new labor force entrants who are considered not truly willing to work would not be prepared to fulfill the requirements of the A track and hence would probably not register as unemployed.

Therefore, for illustration purposes, two alternative assumptions are considered. The first is that 30 percent of those currently registered as unemployed would not claim support in the face of work requirements and this will be called the 70 percent rule. The second is a more conservative assumption that 15 percent of the current registered unemployed would not claim under the alternative scheme and this will be called the 85 percent rule.

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1/ Calculated from International Labor Organization : Year Book of Labor Statistics.

Step 7

Columns 4 to 9 of Table 1 show the estimated number of A track claimants under the assumptions that 70 percent and 85 percent of those currently registered as unemployed would also register under the proposed alternative scheme.

Step 8

In the absence of any information on the household background of the unemployed, it is only possible to estimate the number of dependents that might require support under the A track. The average number of household members for the poorest quartile of 'working' households 1/ is approximately 5 and the average number of consumption units is approximately 3.75 based on the 1989 household survey (GUS 1989). If it assumed that the average household consists of two adults and three children, which is consistent with the consumption unit figure, and that each household has only one unemployed individual at most, the average number of dependents per unemployed individual is 1.5 children or 1 consumption unit. 2/

Step 9

Table 2 shows the estimated total benefit costs for the unemployed in Track A and draws a comparison with the projected costs of the current program for unemployment benefit paid by the Labor Fund part of the safety net. 3/ It is assumed that none of the unemployed enter training, which is irrelevant for the proposed scheme estimate, but if training were undertaken, the estimated benefit cost would be higher for the current program. For the current program, the cases of the average previous wage of the unemployed being 50 percent and 100 percent of the average wage are considered. For the proposed scheme, the two poverty lines of the minimum benefit and the social minimum are considered. Under the current program, if the average benefit is only 50 percent of the average wage, the average

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1/ 'Working households' are all households excluding pensioner households which mostly consist of two elderly adults.

2/ The average household number of consumption units is 3.75. If 1.85 is deducted for a male and a female adult (1 + 0.85), the remaining number of consumption units is 1.9, which is approximately 1 per adult. This may underestimate the number of dependents because it assumes that all second adults in the household will be working, which will not always be the case and in some circumstances the number of dependents will be equivalent to 2.75. Thus, the estimate of dependent benefit costs should be treated as a lower bound.

3/ These Labor Fund benefit costs assume that all those registered as unemployed receive benefit payments, although this has not been the case. It is estimated that only 75 to 80 percent of the unemployed were receiving benefit in June.

Table 2. Estimated Costs of Unemployment Benefits for Poland, 1990

(In billions of zlotys)

| | With unemployment duration of | |
|---|---|---|
| | 6 months | 12 months |
| Current scheme: | | |
| Average benefit = 50% of average wage | 1,755 | 2,052 |
| Proposed scheme: minimum benefit | | |
| 70 percent rule | 1,427 | 1,735 |
| 85 percent rule | 1,734 | 2,109 |
| Current scheme: | | |
| Average benefit = 100% of average wage | 2,830 | 3,316 |
| Proposed scheme: social minimum | | |
| 70 percent rule | 2,669 | 3,262 |
| 85 percent rule | 3,244 | 3,964 |

Notes:

1. The current program costs are calculated using the unemployment figures from Table 1 and the following assumptions:
   - the monthly inflation rates are the actual levels for January to March, 4 percent per month for the second quarter of the year and 3 percent per month for the second half of the year.
   - average earnings in the socialized sector rise in line with the Law on Taxation of Wage Increases of Legal Persons.
2. For the current program, it is assumed that:
   - all individuals do not receive any benefit for one month (whereas those with good reason for leaving employment may receive payment after seven days).
   - all individuals in training receive 80 percent of their previous wage (whereas some may receive 100 percent of their previous wage.
   - there is no previous unemployment so that the January payments equal zero.

All of these assumptions place a downward bias on the cost figures estimated.
3. For the proposed alternative scheme, the estimates of inflation and average earnings are the same as those used for the current program.

claimant will receive the minimum benefit 1/ and this scenario provides a similar level of protection to that of the proposed scheme with a benefit level of the current minimum benefit. The scenario of a benefit of 100 percent of the average wage is more comparable to the benefit level of the social minimum under the proposed scheme.

The projected budget of the Labor Fund for 1990 provided zl 2.2 trillion for cash benefits for unemployment and training. Under the current scheme, benefit costs will not exceed this budget only if the average benefit of claimants is closer to 50 percent than 100 percent of average earnings. For the proposed scheme, the budget limit would not be broken if the poverty line were closer to the minimum benefit level than the social minimum benefit level.

The estimates show that the proposed scheme could be less expensive than the current program, depending upon how low the benefit level is set and how high the average previous earnings of the claimants is.

Finally, the cost of support for the dependents of those in A track is equal to the benefit cost for the unemployed, because each registered unemployed individual is assumed to claim support for one consumption unit. It should be stressed that this figure is probably biased in a downward direction for the reason described above. This cost has no direct counterpart in the current scheme.

Step 10

In Poland, the statistics provided by the Central Statistical Office (GUS) from household budget surveys are divided into four categories of worker; mixed, farmer and pensioner households. 2/ Income distributions for 1990 are currently only available in the form of preliminary estimates for worker and pensioner households for March 1990. The lower end of these distributions are shown in Table 3. The estimated number of households or individuals with pre-transfer income below the current poverty line for worker households and pensioner individuals are shown in rows (5) and (13) respectively. 3/ For the pensioner group, it is assumed that under the

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1/ The claimant will receive 50 percent of the average wage multiplied by 70 percent, which is 35 percent of the average wage or the minimum benefit level.

2/ Worker households are those whose primary income is from labor in the socialized sector. Mixed households are those whose income is derived from labor in the socialized sector and from individual agricultural labor. Farmer households are those whose primary income is from individual agricultural labor. Pensioner households are those whose income is primarily from pensions and retirements and this group consists mostly of two elderly adults.

3/ For estimates of the head count poverty figures for all households in the years 1978 to 1987, see Milanovic (1990).

Table 3. B Track Poverty Gap for March 1990

| Income Group<br>Per capita monthly income<br>(in thousands of zlotys) | 0-150 | 150-200 | 200-250 | 250-350 | 350-450 |
|---|---|---|---|---|---|
| Worker households | | | | | |
| 1. Percentage of of workers | 0.4 | 2.2 | 5.9 | 21.4 | 23.0 |
| 2. Average percentage of income received as social benefits | 30 | 30 | 25 | 20 | 15 |
| 3. Average pre-transfer income (in thousand of zlotys) | 52.5 | 122.5 | 168.8 | 240.0 | 340.0 |
| 4. Pre-transfer lower income interval bound (in thousands of zlotys) | 0 | 105.0 | 150.0 | 200.0 | 297.5 |
| Poverty line = social minimum = 300,000 zlotys | | | | | |
| 5. Number of poor households | 16,000 | 88,000 | 236,000 | 856,000 | -- |
| 6. Number of poor households categorized as A track | 2,158 | 11,868 | 31,828 | 115,442 | -- |
| 7. Number of households in B track | 13,842 | 76,132 | 204,172 | 740,558 | -- |
| 8. Poverty gap (in billions of zlotys) | 17.1 | 67.6 | 134.0 | 222.2 | -- |
| Poverty line = minimum benefit = 175,500 zlotys | | | | | |
| 9. Number of households in B track | 13,842 | 76,132 | 104,128 | -- | -- |
| 10. Poverty gap (in billion of zlotys) | 8.5 | 20.2 | 6.6 | -- | -- |
| Pensioner households | | | | | |
| 11. Percentage of Pensioners | 1.3 | 4.3 | 8.0 | 25.7 | 27.0 |
| 12. Average pre-transfer income (in thousands of zlotys) | 75.0 | 175.0 | 225.0 | 300.0 | 400.0 |
| Poverty line = social minimum = 300,000 zlotys | | | | | |
| 13. Number of poor individuals | 78,000 | 258,000 | 480,000 | 771,000 | -- |
| 14. Poverty gap (in billions of zlotys) | 17.6 | 32.3 | 36.0 | 19.3 | -- |
| Poverty line = minimum benefit = 175,500 zlotys | | | | | |
| 15. Number of poor individuals | 78,000 | 131,580 | -- | -- | -- |
| 16. Poverty gap (in billions of zlotys) | 7.8 | 1.7 | -- | -- | -- |

Sources : Dethier & Plewa (1990), GUS (1989) and IMF Staff.

Table 3 (concluded). B Track Poverty Gap for March 1990

Notes:

1. The two poverty measures considered are calculated in the following way:
   - the average per capita social minimum for December 1989 was zl 150,000 (Dethier & Plewa 1990). Adjusting for inflation during the first quarter of 1990 produces an average per capita social minimum of zl 300,000 for March 1990.
   - it is estimated that the minimum benefit is zl 245,000 and the social minimum for one adult is zl 418,000 for March 1990. The average per capita income corresponding to the same level of support as the minimum benefit is therefor estimated to be approximately zl 175,500 (300,000 multiplied by 245,000/418,800).

2. Row (2): This is the average proportion of income received in the form of social benefits for the corresponding interval of the income distribution (GUS 1989, updated for 1990).

3. Row (3): This is the average post-transfer income for each group, assuming that incomes are distributed evenly across each interval, minus the income received in the form of social benefits. The amount deducted is calculated to include both monetary and in-kind social services (that is, retirements and pensions; parental, educational and maternal allowances; scholarships; non-reimbursable relief; and the value of goods and services obtained for free) and hence, the final benefit payments should be seen as replacing both categories of benefits. (GUS 1989).

4. Row (5): This is the number of households in each income interval with per capita income below the poverty line, calculated by dividing the number of individuals in each category by an average household membership of five.

5. Row (6): This is the number of poor worker households with an unemployed member in March 1990, based on the assumptions:
   - the unemployed are distributed evenly across worker, mixed and farmer households.
   - all unemployed individuals are members of households with a per capita income level below the poverty line.
   - each household contains, at most, only one unemployed member.
   - the income levels of the households in A track are distributed evenly across the four lowest income intervals.

6. Row (7): This is calculated by subtracting row (6) from row (5).

7. Row (8): The poverty gap is calculated by multiplying the difference between the poverty line and the average pre-transfer income of each group by the number of households and then by the average household size, five.

8. Rows (9) and (10) are calculated in a similar way to (7) and (8) with adjustments made for the lower poverty line.

9. Row (12): As it is assumed that any current provision for retirement would remain in place under the proposed alternative scheme, no adjustment is made from post-transfer income to pre-transfer income.

10. Rows (13) to (16): The poverty gaps for the pensioner group are calculated in the same way as that for the worker group.

proposed scheme, a separate program would continue to exist to provide support for old age and that the pensions currently received by the elderly would be unchanged. Thus, no adjustment is made to the post-transfer income distribution for pensioners.

Step 11

Information was not available on the number of poor households which contained an unemployed individual. In order to estimate this, it is assumed that each household contains at most only one unemployed individual and that no unemployed individuals reside in non-poor households. 1/2/ As a result, the number of poor households containing an unemployed individual can be calculated using the figures for the number unemployed obtained in step 4. This is shown in row (6) of Table 3. It should be noted that this is not necessarily the same number as those receiving support in track A, the difference being the number of households containing an individual who is unemployed and 'able to work' but who is unwilling to fulfill the A track requirements.

Step 12

The number of worker households and pensioner individuals who qualify for B track are shown in rows (7) and (13) of Table 3 for a poverty line of the social minimum and in rows (9) and (15) for a poverty line of the minimum wage.

Step 13

The poverty gaps for worker and pensioner households are shown in rows (8), (10), (14) and (16) of Table 3. In Table 4, the poverty gaps for mixed and farmer households are estimated by adjusting the worker poverty gap for the smaller number of households in the mixed and farmer categories. Because the B track benefit is means-tested to bring total household income just up to the poverty line, the poverty gap corresponds directly to the amount of benefit that would be paid. The total poverty gaps per month for the two potential poverty lines are estimated and the annual cost of B track benefit is shown with an adjustment made for inflation. Table 4 highlights again the importance of the choice of poverty line and the degree to which it can be used to control total costs. The effect is even more significant in the B track than in the A track because the poverty line determines the

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1/ For additional assumptions, see row (6) in the notes to Table 3.

2/ The main category where unemployed individuals may reside in non-poor households would be young workers living with non-poor parents. If poverty estimates were being calculated for later in the year, it might be desirable to remove the number of unemployed school-leavers from the unemployment figures when calculating the number of poor households being supported in A track.

Table 4. B Track Benefit Costs for Poland 1990

(In billions of zlotys)

| | Cost per Month | Cost per Year | Cost per Year Adjusted for Inflation |
|---|---|---|---|
| Poverty line = social minimum | | | |
| Worker households | 440.9 | 5,290.8 | |
| Mixed + farmer households | 286.6 | 3,439.2 | |
| Pensioner households | 105.1 | 1,261.2 | |
| Total | 832.6 | 9,991.2 | 11,207.9 |
| Poverty line = minimum benefit | | | |
| Worker households | 35.3 | 423.6 | |
| Mixed + farmer households | 22.9 | 274.8 | |
| Pensioner households | 9.5 | 114.0 | |
| Total | 67.7 | 812.4 | 911.3 |

Notes:

1. The B track benefit cost per month for worker and pensioner groups is the sum of the poverty gaps across all the income intervals from rows (8) (10) (14) and (16) of Table 3, respectively.
2. The figures for the farmer and mixed households are estimated assuming:
   - the households have the same characteristics as those for worker households, with the size of the poverty gap being adjusted for the smaller number of farmer and mixed households (that is, multiplying the worker poverty gap by 0.65 because the ratio of the number of worker households to the number of farmer and mixed households is approximately 3:2 (GUS 1989)).
   - the households have the same social minimum level as worker households, even though historically, the social minimum for farmer and mixed households has been set at approximately 80% of that for workers (Milanovic 1990).
3. To estimate the annual cost, it is assumed that the March poverty gap is the average monthly amount for the year. It is assumed that any further substantial increase in poverty will result from growing unemployment and hence would be dealt with in the A track.

number of eligible claimants in addition to the level of benefit paid to each.

Step 14

Table 5 shows the estimated costs for the year of providing training, workfare and job search-related services for both the current scheme and for the proposed scheme. 1/ Information on the costs of such services in Poland is not readily available, partly because workfare and the job search-related services are not currently in use and partly because only a very small proportion of the unemployed have entered into training. As an approximation, experience from schemes undertaken in the United States can provide some measure of the cost. It should be borne in mind however, that the quality of training and workfare can vary considerably and the type undertaken in the United States may be of a more expensive variety than would be implemented in a country with a standard of living similar to that of Poland. Therefore, in estimating the workfare costs, the lowest quality of workfare undertaken in the United States is taken as the standard. Nevertheless, the estimations shown in Table 5 do provide some indication of the relative sizes of service costs under the different schemes.

From Table 5 it can be seen that if no training is undertaken, the current scheme is much less expensive than the proposed scheme. If training is undertaken to any significant degree, however, the cost of the current scheme rises sharply. This arises because claimants undertaking training begin after one month in the current scheme, but would not begin training for approximately five months in the scheme proposed here. 2/ Very large cost differences arise in the case where all participants enter training.

Step 15

The estimation of the administrative costs is not possible with the information available, although it can be hypothesized that the proposed scheme would not have significantly greater costs in providing support for the unemployed than those under the current scheme. Although the proposed scheme does involve means-testing and provides for such features as policing against fraud and a claimant appeal mechanism, the current scheme has such complications as individually-determined unemployment benefit rates which may need to be recalculated twice and a number of different organizations providing aid.

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1/ The education option in the proposed scheme is considered to be part of the 'training' option for the purpose of this section.

2/ Another part of the reason is that the unemployment figures are smaller in the alternative scheme than under the current program, but this is not the major factor.

Table 5. Cost of Providing A Track Services for Poland 1990

(In billions of zloty)

| | No Training | | 50% Enter Training | | 100% Enter Training | |
|---|---|---|---|---|---|---|
| | 6 month duration | 12 month duration | 6 month duration | 12 month duration | 6 month duration | 12 month duration |
| Current program | 0 | 0 | 22,990 | 26,695 | 48,885 | 53,390 |
| Proposed scheme: | | | | | | |
| 70 percent rule | 3,705 | 4,465 | 9,310 | 11,305 | 15,010 | 18,145 |
| 85 percent option | 4,465 | 5,415 | 11,400 | 13,680 | 18,335 | 22,040 |

Notes:

1. Based upon experience in the United States, the estimated costs per participant in 1990 are US$750 for one month of training, $80 for one month of workfare and $50 for one week of a job club/supervised job search. (Derived from Glazer (1986), LaLonde (1986) and Gueron (1987, 1990)).
2. Under the current program, it is assumed that those undertaking training begin one month after registering as unemployed and continue in training for the entire duration of their unemployment.
3. Under the proposed alternative scheme, the average cost per month if no claimants enter training is $73 per claimant. If claimants enter training, the average cost per month is $183 if the duration of unemployment is 6 months and $408 per month if the average duration is 12 months. Therefore, it is assumed that the average monthly cost is $300 in the training case.
4. The initial cost estimates are made in US dollars and converted to zlotys at the 1990 exchange rate of US$1 = 9,500 zloty.

Step 16

Table 6 shows the final budget estimates, excluding administrative costs, for the safety net scheme described in Section III for Poland for the year 1990. The different totals reflect the effect of two policy parameters--the amount of training and the level of the poverty line--and two economic variables--the duration of unemployment and the degree to which participation requirements deter individuals from registering as unemployed. The choice of the policy parameters appear to have a greater effect on the final cost than the economic variables. The difference between the cost for the lowest assumptions about unemployment and that for the highest assumptions is only, at most, 45 percent, whereas varying the policy parameters from the lowest to the most expensive may multiply the cost by over three times. In part, this reflects the fact that the scenarios considered cover the very extremes of the policy options, whereas the economic variables are estimated on the basis of quite conservative considerations. Nevertheless, it is clear that the policy parameters selected are important influences on the final cost and allow policy makers considerable flexibility in controlling budget costs.

Two important factors have been omitted from the cost calculations made. First, the scheme proposed involves a smaller disincentive to work than many alternatives. To the extent that there is productive labor activity which may not have been undertaken under alternative income maintenance programs 1/ and that the workfare requirements result in useful output, benefits will be generated for the economy as a whole. Second, by ensuring the poorest groups in society a minimum standard of living, any income maintenance program may enhance their productive capacity and increase the supply of labor to the economy. 2/ Although both of these effects cannot be measured easily, if at all, a full consideration of the net cost of income maintenance schemes in terms of economic resources would make some allowance for these benefits.

Some comparison can be made between the amount currently spent on income maintenance programs in Poland and the estimated costs of the proposed scheme. For 1990, it is projected that approximately 13 percent of GDP will be spent on social money benefits, consisting mainly of pensions, family and unemployment benefits. This figure includes the cost of pensions for retired individuals, which the cost estimates in Table 6 do not. If the cost of paying a benefit equal to the social minimum to all pensioners is added to the highest cost case in Table 6, the proposed scheme would require

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1/ If a comparison was being drawn between a new scheme and no government intervention, the new scheme would reduce the labor supply and create an additional cost rather than a benefit.

2/ See Blejer and Chu (1990).

Table 6: Estimated Total Budget Cost for Poland 1990

(In billions of zlotys)

| | No Training | | 50% Enter Training | | 100% Enter Training | |
|---|---|---|---|---|---|---|
| | 6 month duration | 12month duration | 6 month duration | 12 month duration | 6 month duration | 12 month duration |
| Poverty Line = Minimum Benefit | | | | | | |
| 70 percent rule | | | | | | |
| A Track Benefits | 2,854 | 3,470 | 2,854 | 3,470 | 2,854 | 3,470 |
| B Track Benefits | 911 | 911 | 911 | 911 | 911 | 911 |
| Services Cost | 3,705 | 4,465 | 9,310 | 11,305 | 15,010 | 18,145 |
| Total | 7,481 | 8,846 | 13,075 | 15,686 | 18,866 | 22,526 |
| (percent of GDP) | (1.7) | (2.1) | (3.0) | (3.6) | (4.4) | (5.2) |
| 85 percent rule | | | | | | |
| A Track Benefits | 3,468 | 4,218 | 3,468 | 4,218 | 3,468 | 4,218 |
| B Track Benefits | 911 | 911 | 911 | 911 | 911 | 911 |
| Services Cost | 4,465 | 5,415 | 11,400 | 13,680 | 18,355 | 22,040 |
| Total | 8,844 | 10,544 | 15,779 | 18,809 | 22,734 | 27,169 |
| (percent of GDP) | (2.1) | (2.5) | (3.7) | (4.4) | (5.3) | (6.3) |
| Poverty Line = Social Minimum | | | | | | |
| 70 percent rule | | | | | | |
| A Track Benefits | 5,338 | 6,524 | 5,338 | 6,524 | 5,338 | 6,524 |
| B Track Benefits | 11,208 | 11,208 | 11,208 | 11,208 | 11,208 | 11,208 |
| Services Cost | 3705 | 4465 | 9310 | 11305 | 15010 | 18145 |
| Total | 20,251 | 22,197 | 25,856 | 29,037 | 31,647 | 35,877 |
| (percent of GDP) | (4.7) | (5.2) | (6.0) | (6.7) | (7.4) | (8.3) |
| 85 percent rule | | | | | | |
| A Track Benefits | 6,488 | 7,928 | 6,488 | 7,928 | 6,488 | 7,928 |
| B Track Benefits | 11,208 | 11,208 | 11,208 | 11,208 | 11,208 | 11,208 |
| Services Cost | 4,465 | 5,415 | 11,400 | 13,680 | 18,355 | 22,040 |
| Total | 22,161 | 24,551 | 29,096 | 32,816 | 36,051 | 41,176 |
| (percent of GDP) | (5.2) | (5.7) | (6.8) | (7.6) | (8.4) | (9.6) |

Notes:

1. The figures are taken from Tables 2, 4 and 5.
2. The A track benefit costs include payments to the unemployed and the allowance for dependents.

an expenditure equal to approximately 14 percent of GDP to provide a guaranteed income of the social minimum. 1/ If only 50 percent of the unemployed entered training, the amount would be equal to approximately 12 percent of GNP. For the amount currently being spent on income maintenance, it might be possible to bring the income of all individuals up to the social minimum and to permit half of the long-term unemployed to enter training 2/, on the basis of even the most pessimistic assumptions made here about unemployment. However, the price that would be paid is that those currently above the poverty line and receiving support would face a reduction in their living standards. This is a distributional question, the answer to which depends upon the underlying objective of the program. However, the important conclusion is that considerable poverty alleviation could be achieved within current budget constraints.

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1/ The annual cost of paying zl 300,000 per month to 6 million members of pensioner households is zl 21,600 billion. Table 4 shows that zl 1,261.2 billion has already been allocated to poor pensioner households, so that the net additional benefit costs of extending the proposed scheme to cover those in retirement would be zl 20,339 billion. The total cost under the highest scenario would be zl 61,515 billion or 14.3 percent of GDP.

2/ The long-term unemployed being defined as those who remain registered as unemployed for five or more months.

## V. Summary

The income maintenance program developed in this paper differs from existing schemes in a number of important ways.

First, the prime objective of the program is to guarantee a minimum level of income rather than income insurance. By contrast, many current schemes protect against sudden falls in the standard of living which do not necessarily result in unusual hardship.

Second, the provision of protection is conditional upon the fulfillment of certain requirements such as workfare, training or job search, rather than being conditional upon past contributions to the scheme. Some current programs also require that recipients be willing to support themselves to the best of their abilities, but these requirements are usually enforced through the discretion of social workers rather than through the signal of work requirements.

Third, many existing programs attempt to target resources to the needy through the use of certain contingencies as proxies for deficient income. For example, many schemes target unemployment, single parenthood or disability and only use the direct means-testing of income for programs of last resort. The proposed scheme uses no such proxies but directly assesses need on the basis of income and on the totality of resources available to the household.

Similarly, many existing schemes attempt to target aid towards those unable to support themselves and for whom the resulting work disincentives are small by the use of such proxies as the disabled, the sick, the elderly and single mothers. Under any scheme, it is difficult to determine which individuals are able to work. The advantage of the proposed program is that it asks the question directly and the burden is placed upon the claimant to show an inability to work.

As a result of these differences, the proposed scheme would have a number of advantages over many existing programs. No part of the poor population is omitted from eligibility for support sufficient to remove it from poverty. The expenditure on benefits in the scheme is minimized. Work disincentives are minimized by ensuring that the majority of those able to work would prefer to work in the private sector than participate in the scheme. The proposed scheme does, however, have a number of drawbacks. It only provides protection against a fall in living standard below the poverty line. It may require large initial outlays for the workfare and training elements, even though these may be cost-effective in the long run. Finally, by using a household basis of assessment, the scheme may create distortions in household and family structure.

The relative importance of these advantages and disadvantages will depend upon the particular values and needs of a society. Perhaps of greatest importance is the establishment of the underlying objective: whether the aim is to provide protection against poverty or to provide insurance against income insecurity. If the former is the goal, the policies proposed in this paper could offer some guidance in achieving poverty alleviation at minimum budgetary cost.

## Example Benefit Schedules

The following example benefit schedules are intended only to show how the benefit level might be structured and to provide some idea of the size of relative benefits between the two tracks, between households of different sizes, and between adults, older children and younger children. The figures shown do not correspond to any particular poverty index or value. 1/

In the A track, a basic benefit is paid to the claimant plus an allowance for the number of dependent adults, an allowance for dependent older children and an allowance for dependent younger children. In the B track, a benefit is paid for the number of adults in the household, plus an allowance for older children and one for younger children.

The table below shows the A and B track benefits.

| Number of claimants | A track (Individual basis) | B track (Household basis) |
|---|---|---|
| 1 adult/no dependents | 1,700 | 2,000 |
| 1 dependent adult | 2,700 | |
| 2 adults | | 3,200 |
| 2 or more dependent adults | 2,700 + ($\gamma$-2) 800 | 3,200 + ($\gamma$-2) 1,000 |
| 3 or more adults | | |
| Dependent children | | |
| Older child | 700 | 800 |
| Younger child | 600 | 700 |
| 2 or more older children | 700 + ($\delta$-1) 500 | 800 + ($\delta$-1) 600 |
| 2 or more younger children | 600 + ($\delta$-1) 450 | 700 + ($\delta$-1) 500 |

Notes:

$\gamma$ = for the A track, the number of dependent adults plus the claimant.
= for the B track, the number of adult household members.
$\delta$ = the number of dependent children or the number of child household members.

1/ The figures given are very approximately based upon those suggested by Kesselman (1973), who used a slightly modified U.S. Social Security Administration's nonfarm poverty income thresholds for his 'SWIFT' proposal.

## Policy Options

To modify the social safety net scheme, a number of policy options are available. The options provide for varying degrees of generosity to claimants and varying amounts of assistance to improve overall labor market efficiency. The options appear below.

### Option 1: Benefit levels

In the most basic scheme, the levels of benefit would be set at the absolute minimum level in order to minimize costs. As the budget available increases or the number of claimants decreases, so the benefit levels can be increased to guarantee a higher standard of living. Given the correct work requirements, this should have few significant effect on incentives. Such an increase in benefit levels might be appropriate at the end of major economic restructuring, when the numbers of unemployed have returned to a lower, long run level and the scheme can afford to be more generous.

### Option 2: Benefit allowances for special needs

Related to Option 1, as the resources available per claimant increase, so the scheme can afford to be more generous in its definition of special needs and the amounts paid to contribute towards them. In order to maintain administrative simplicity, however, it is recommended that the general benefit levels be raised rather than the resources devoted to special needs. Indeed, it may be optimal to reduce the reliance upon special needs payments as the general benefit levels become more generous and can cover the cost of such special needs.

On the other hand, society may consider a particular type of expenditure as generating positive externalities and worthy of a subsidy. For example, home ownership may be deemed important for social stability, but mortgage payments may be difficult to maintain during a sudden fall in income whereas other expenditure may be delayed. In order to avoid the unnecessary sale of homes during transitory periods of hardship, some provision may be made for housing costs. Another possible candidate for such special support could be a child's education costs. Thus, if the system could afford to be more generous, it might choose to support particular types of special needs which are not absolutely essential to basic survival, but positive to society in the long term.

### Option 3: The definition of income

Similarly, the definition of income could be made more generous by the use of exemptions, for example, for housing or work expenses, or a larger proportion of savings or all savings could be made exempt.

Option 4: The definition of ability to work

In the most basic scheme, it is the responsibility of the individual to show that he or she is unable to work. Under a more generous scheme, the categories of those automatically exempt could be widened and the number eligible increased. For example, reductions could be made in the age requirement for the elderly or increases in the age of the youngest child for which the mother is exempt or by exemption being extended to all wives. The choice of those expected to work may also depend upon the labor needs of the economy. For example, during a period of labor shortage, a larger proportion of the population may be expected to work.

Option 5: The provision of child care

Related to Option 4, the availability of free or inexpensive child care may mean that mothers of young children are deemed able to work. This may be an option that reduces costs if the expense of providing child care is less than the amount saved in benefit as a result of the mother working. Depending upon the relative costs and society's norms concerning the rearing of children, the safety net scheme may include the provision of child care as a voluntary option for mothers who wish to work or as a compulsory element if mothers are deemed as being required to work.

Option 6: The education and training assignments in track A

The number of education and training assignments would be determined by the budget constraint and by the demands of the economy for certain types of skills. In the most basic scheme which aims just to minimize costs, track A would have only the cheaper alternative of workfare and no training or education assignments. An economy undergoing major restructuring may have a high demand for new skills, but, if there were also a recession in output, the safety net could be limited in the resources available. Once such restructuring is complete, the budget may permit greater training and education options, but there may be less need for new skills. Indeed, in a well-functioning economy near full-employment, there may be little need for training or education in the scheme, although even when booming, most dynamic economies have some labor skill shortages.

Option 7: A basic labor skills course

In some schemes similar to the one outlined here, such as the Californian 'GAIN' program, there are checks and courses to ensure that participants have basic labor skills, such as, language fluency and basic reading and writing. In this scheme, such a course could be incorporated at the beginning of the Job Market Skills course and would last possibly several months depending upon the deficiencies involved. The need for such an element will depend upon the skills of the claimant population. For example, there may be little need for such a course if the whole population

speaks the same first language and the education system ensures that virtually no individual leaves school without the ability to read and write.

Option 8: Checks on the poor full-time employed

With greater funds available to the scheme, or a larger proportion of the claimant population in this category, the resources devoted to investigating actual and potential earnings ability could be increased.

Option 9: Large scale redundancies

During major restructuring programs, large-scale redundancies may be announced months in advance. In order to minimize the period of unemployment and job search following the lay-offs, it may be desirable for work-search facilities to be provided at the place of employment before the redundancies occur.

## The Polish Social Safety Net

The Employment Law in Poland established a Labor Fund to assist workers rendered redundant by providing them with unemployment and retraining benefits, with the emphasis of the program being placed upon retraining and improving labor mobility. It also finances job creation through credits to enterprises and small businesses. The Fund is financed by a levy on enterprise payrolls and by budgetary transfers.

Unemployment benefit is not paid for the first seven days of unemployment and there is a thirty day penalty for leaving a job without good reason. It is paid at a level of 70 percent of the individual's previous wage for the first three months, at 50 percent for a further six months, and then at 40 percent without any time limit. The benefit is not indexed and in times of high inflation, may rapidly fall in real terms to the level of the minimum benefit. For new entrants to the labor market, the level of benefit depends upon the individual's education and the duration of unemployment. The maximum level of benefit equals the average wage and the minimum level is 35 percent of the projected average monthly wage.

An individual will be accepted for unemployment benefit only if there are no suitable jobs or training places available. The level of benefit for those in training is 100 percent of the previous wage for those who were part of "group redundancies" and for others, at 80 percent of the previous wage. The minimum level of training benefit is about 40 percent of the average wage and there is no upper limit.

Benefits, other than for unemployment and training, are paid by a number of other sources. Pensions are paid from the Social Insurance Fund mainly for old age, invalidity, accident and survivors and are calculated as a percentage of previous earnings. Family allowance is paid to public sector employees by their employers at centrally determined flat rates, the money coming from the Social Insurance Fund. Sickness benefit is paid to public sector employees by their employers out of the revenue of the firm. Finally, social welfare comprises benefits of last resort and are administered at the local level in a largely discretionary manner.

A draft Social Welfare Law seeks to consolidate means-tested cash benefits, institutional care and other benefits in kind, and aims to provide relief for those whose income still leaves them in poverty. Under the scheme, the benefits paid will be largely determined on a discretionary basis by social workers.

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