

CRITERIA FOR AND A MODEL OF EFFICIENT LOCATION SUBSIDY DESIGN AND ADMINISTRATION

L. V. Asch*

I. INTRODUCTION

Given the objectives of manpower and regional development policies, there appears to be growing support for the principle of public intervention to affect the spatial distribution of employment, production, and population. There is also widespread agreement, in theory at least, with the proposition that such intervention should be effected in the most efficient possible fashion. Unfortunately, not much attention has heretofore been devoted to the problems of defining or attaining efficiency in the use of location subsidy measures. This paper attempts to develop a practicable standard of and workable procedure for attainment of such efficiency.

ALTERNATIVE SUBSIDY EFFICIENCY CRITERIA

Various standards of location subsidy efficiency have been proposed. Some have suggested that subsidies be evaluated according to their contribution to the improvement of "regional balance" within a nation.¹ Another proposed criterion identifies efficiency as minimization of "real output" sacrificed in the implementation of location measures.² A third approach suggests selection of competing subsidy arrangements so as to maximize total money income generated.³ Finally, efficiency may be defined as minimization of nominal subsidy cost per job directly "created."^{4, 5}

The "regional balance" and "real output" standards are unworkable and must therefore be rejected. Aside from lacking precise or obvious meaning, the "regional balance" standard does not enable a policy evaluator to relate the direct inputs and outputs of alternative subsidy arrangements to the impact on such "balance." While evaluations of subsidies according to their effect on the quantity of "real output" is theoretically preferable to use of the alternative criteria, both theoretical and empirical efforts to develop a practical methodology have come to naught.⁶

Under the money income maximization criterion, the anticipated amount of employment created times the expected average annual income generated per unit of employment created yields the maximization target. If evaluators select subsidy arrangements which maximize expected income generated, the effect might be a preference for a subsidy arrangement which creates a small number of high paying jobs over one which would result in creation of a greater quantity of more moderately remunerated employment. In those frequent cases where the objective of location policy is to relieve the economic distress of the usually low-skilled unemployed and underemployed, an income maximization criterion could produce perverse results. In general, it seems unlikely that a criterion not primarily related to the employment needs or qualifications of the target population will function effectively in the selection of subsidies which result in the maximal fulfillment of those needs.

Preference for the "nominal cost per job directly created" efficiency yardstick results partly because the available alternatives are deficient and partly because it appears to be both relevant and operational. Specifically, this standard calls for the selection of those subsidy arrangements⁷ which

*Legislative Assistant to U. S. Senator John V. Tunney. The views expressed herein are those of the author and the author alone.

minimize the money cost to the subsidizing agency of achieving any particular employment creation objective or objectives. Since limited and general insufficient funds are available for location policy purposes, nominal subsidy cost appears to be an important and easily quantifiable measure of subsidy input. Choice of the variable "jobs directly created" as a measure of subsidy output is sub-optimal but defensible. If the term "job" is specifically defined with respect to the skill levels, training opportunity, promotion opportunity, minimum duration, wage rate, and other possible employment objectives of the subsidizing agency, one gets a valid measure of the extent to which the subsidy results in the satisfaction of what must, necessarily, be a complex employment objective. The main weakness of this efficiency standard is that it ignores the differential secondary employment creation effects of alternative subsidy arrangements. Since the amount of secondary employment likely to result from any given industrial location is difficult to predict and since the characteristics of that employment are even less foreseeable, a practical aprior measure of subsidy output must ignore the indirect employment creation results. In a world replete with different subsidy techniques, possessed of limited theoretical insight into the problem of choice between techniques and largely barren of workable standards of evaluation, the "nominal cost per job directly created" criterion, with its obvious limitations, emerges as the superior option.

ATTRIBUTES OF EFFICIENT SUBSIDY DESIGN AND ADMINISTRATION

Given adoption of the nominal cost efficiency criterion, it follows that there are several features of subsidy design and administration which tend, *ceteris paribus*, to improve subsidy efficiency. First, since informed judgments of relative subsidy efficiency require reliable estimates of subsidy costs and expected job creation, subsidies should be constructed to enhance the measurability of their inputs and outputs. Second, subsidies should be designed to appeal to the broadest possible universe of potential recipients. Other things equal, the more employment creation offers the subsidizing agency can attract with the prospect of some given amount of subsidy, the greater its ability to maximize subsidy efficiency by selecting those offers which promise to supply the largest amount of new employment. Because potential recipients must consider subsidy offers in the present, the more certain future subsidy benefits appear to those recipients the less they must be discounted and thus the less will be the cost of attaining any particular location policy objective. A third principle, then, is that efficiency is positively related to the certainty of subsidy benefit. A final feature of efficient subsidy design is that subsidy size should be directly related to the attainment of subsidy objectives. Given the rarity of zero elasticity of substitution between a subsidized non-target (say, capital) input and the non-subsidized target (labor) input, a subsidy tied to a non-target variable, in the expectation that a side effect will be desirable impact on the target variable, will be less efficient (i. e., require more units of input per unit of output) than one which makes subsidy size directly dependent upon the extent to which the subsidy objective (job creation) is attained.

There are, in addition, several characteristics of subsidy administration which have a bearing on efficiency. A first requirement is that funds should be dispensed so that the amount paid corresponds closely to recipients' minimum subsidy demands. A subsequent section will demonstrate a mechanism which meets this requirement. Complementing the first is a second requirement that there be administrative discretion with respect to subsidy recipient. Since potential recipients will differ in the minimum amount each demands in return for partial or complete fulfillment of the location policy objective, subsidy administration must be selective if it is to minimize cost.

Lastly, location measures that can be coordinated with other manpower policy actions are likely to be more efficient than those that can not. A coordinated program of location subsidies and skill-development efforts, for example, would probably reduce the cost of attaining policy objectives under what it would otherwise be if the average skill level of the unemployed in the subsidized area is below that of competing areas.

To reiterate briefly, subsidies structured so that costs and benefits are measurable, so as to have broad appeal, so as to provide benefits with certainty, and so that benefits are contingent upon performance are likely to be more efficient than those with opposite characteristics. Also, where subsidies are administered so as to minimize unnecessary expenditure, to allow discrimination between potential recipients and to permit coordination with related policies and programs, they are likely to be more efficient than otherwise.

A MODEL PROPOSAL

There is, I believe, a viable and efficient alternative to the multitude of variously designed and administered location policy measures currently in operation. Prerequisite to development of an optimum alternative is adoption of a Constitutional amendment to permit monopolization of all location subsidy dispensation in the hands of a single Federal agency. Once created, this agency would initially determine and assign relative priorities to employment expansion objectives at selected locations around the nation. Starting with the highest priority location, the agency would employ appropriate national media to advertise location-relevant details of the area's economic environment. It would simultaneously describe its employment expansion objectives and solicit competitive subsidy bids. Contracts, in which the firm guarantees partial or total fulfillment of Government objectives as a quid pro quo for receipt of cash grant, are awarded first to the lowest bidder per unit of employment "opportunity" created, then to the next lowest bidder, and so on until the objectives are fully realized.

Subsidy input and output are thereby made measurable and predictable. Competition among expanding firms and Federal monopolization of subsidy supply will together minimize unnecessary public expenditure. Subsidy size depends directly and exclusively upon attainment of policy objectives. Payment of cash grants should have broad appeal and will eliminate any uncertainty that may otherwise be associated with receipt of subsidy benefit. Finally, administrative discretion is preserved and the suggested approach is easily amenable to coordinated use with instruments of manpower policy.

Companies with strong backward and/or forward linkages in the policy-favored location will tend, *ceteris paribus*, to submit lower subsidy bids than other firms. This, in turn, may obviate the need for selecting subsidy recipients on the basis of input/output analyses (as was recently suggested elsewhere) and thus free research resources for investment in activities which directly expand employment opportunity.

ADDITIONAL CONSIDERATIONS AND OBSERVATIONS

In addition to its primary usefulness as an instrument for selection of least-cost subsidy arrangements, the proposed subsidy design and allocation model offers certain related advantages. Government cost per job created is rendered explicit and thus becomes available for comparison with the anticipated public benefits and with the costs of substitute programmatic approaches such as mobility assistance or income maintenance through payment of un-

employment compensation of welfare benefits.

A second feature of proposed model is that its adoption would result in reduction of needless subsidization of industrial location. When subsidies are made available in a non-competitive fashion, for example, on the usual first-come, first-serve basis, firms whose minimum subsidy demands exceed the amount offered will not contract with the government. Firms whose demands are less than or just equal to the amount offered will contract. For firms whose demands are less than the offers, the difference measures the volume of public funds needlessly expended. Under the allocation model developed above, however, the government becomes a perfectly discriminating monopsonist which only contracts with firms at a subsidy "price" approximately equal to their minimum "demand price" for creating new employment. Needless subsidization is thereby almost completely eliminated.

The superior cost efficiency of the proposed arrangements becomes more explicable when it is recognized that the "market" positions of the subsidizing government agency and the subsidy candidates are almost exactly opposite those under the types of non-Federal subsidy arrangement common in the United States today. When hundreds of informationally isolated local communities compete against each other in offering subsidy inducements to a smaller number of comparatively knowledgeable firms, a reasonable expectation is that public funds will be wasted. Needless subsidization will occur because, wherever a subsidy recipient firm ultimately locates, its ability to pick and choose from among a substantial number of subsidy offers will probably enable it to receive a subsidy which exceeds its minimum subsidy "demand price" for creating a given amount of employment at its ultimate locational choice.

A revision of the national structure of subsidy supply to give the Federal Government the exclusive right to offer locationally-related financial inducements is essential to improvement in the aggregate efficiency of subsidy allocation. In fact, continuing to allow non-Federal governments and private organizations to compete against each other and against the Federal Government in the provision of subsidies might even undermine the effectiveness of the proposed arrangements by destroying the Federal Government's monopsonistic position. This, in turn, would drive a wedge between minimum subsidies demanded and actual total (Federal plus non-Federal subsidies) paid and result in needless expenditure of public (and perhaps private) funds. In addition, the measures proposed here might not minimize even just the Federal cost of affecting the location of new employment if local communities or other agencies offered subsidies large enough so that firms that would have received Federal subsidies for locating in particular areas because of their minimum subsidy bid status were attracted to other localities by non-Federal inducements. In such cases, the Federal cost of providing a given amount of new employment to a particular area must increase as the least-cost "suppliers" of new employment are bid away by non-Federal subsidizers. The Federal Government must thus monopolize dispensation of location subsidies if needless subsidization is to be minimized.

Another advantage of the model proposed here is that, to the maximum possible extent, attainment of government objectives may be guaranteed in advance of the subsidy payment. In contrast to present practice under which firms are haphazardly subsidized in the hope that they will have some desirable effects upon the communities in which they locate, under the scheme proposed here the Government may write into the subsidy contract any legal objective it wishes to pursue. It may, for example, require that only residents of some target area (an urban core area or an economically depressed rural

county, for example) will count toward fulfillment of contract employment requirements. Minimum rates of pay, equal employment opportunity, provision for on-the-job training, promotion possibilities, the continued employment of a particular number of people for some specified number of years and other subsidy objectives may be guaranteed in advance by the subsidy contract and enforced by legal action in the event of default. Obviously, however, nothing is fully certain. There always exists the possibility that the subsidy contractor may fail before the contract term expires. To minimize this risk, it seems advisable to recommend that the government temper use of the suggested subsidy allocation procedure with intelligent discretion aimed at excluding from participation firms whose future prospects seem unusually poor.

Some additional benefits associated with the use of subsidy formats and selection methods suggested above are also evident. A subsidy system administered in the proposed fashion should have broad appeal to firms considering new locations. The Federal Government will make available the data on area economic conditions and contract employment specifications relevant to a firm's calculation of the amount of subsidy required for a profitable location. Interested firms risk very little by participating in the proposed system, at least to the extent of making an employment-creation subsidy bid. The apparent ease and economy of participation contributes to the appeal of the subsidy system and, as has been argued elsewhere, this results in a more efficient mechanism for delivering the desired amount and kind of employment when and where it is needed.

Two obvious characteristics of the allocation model merit brief mention in this context. As previously explained, subsidy efficiency is intimately related to the ability of administrators to exercise discretion over subsidy size and recipient and to the direct subsidization of target variables. Under the proposed arrangements, subsidy payments are, in fact, a direct and unique function of some particular target employment variable, subject to an administrator's systematic selection of subsidy recipient.

Finally, there is a point of particular significance for manpower policy. The flexibility implicit in the suggested arrangements contributes greatly to the potential effectiveness of national manpower policy. Location measures designed and administered as suggested herein are easily coordinated with Federal manpower activities affecting labor supply or other components of an active manpower policy. This characteristic is favorable to the efficiency of all manpower policy activity.

SUGGESTIONS FOR NATIONAL POLICY

Attainment of an efficient manpower-location policy solution to employment-related problems of economic distress will require an altered national attitude toward policy and practice in these areas. The following specific changes seem desirable.

Policy Proposal Number One

Authority to subsidize private industrial location should be nationalized and centralized in the hands of a single Federal agency primarily committed to the objectives of active manpower policy.

Policy Proposal Number Two

Once nationalization has been accomplished, the design and allocation

of location subsidies should be revamped along previously suggested lines. To reiterate most briefly, location subsidies should be awarded only in return for a contractually specified employment-criterion guarantee and only to a bidder who will commit the Government to the minimum amount of subsidy cost and who is chosen in a nationally advertised competition.

Policy Proposal Number Three

The remodeled location subsidy program should be integrated into a national administered active manpower policy effort which is adequately financed and thoroughly committed to the broadening of economic opportunity for the disadvantaged.

Policy Proposal Number Four

Further research should be pursued in order to increase the nominal and real efficiency of location subsidy and other manpower policy activities.

THE OUTLOOK

Alone among the western democracies, the United States has no meaningful commitment to the elimination of poverty. A middle-class dominated nation with rapidly fading memories of the Great Depression, we remain content to dabble in piecemeal, pilot-program manpower and anti-poverty experiments while simultaneously expending vast quantities of resources on war and space travel. Unless pending changes in public assistance programs and/or increased activity under legislation to mitigate the employment impact of international trade adjustments are forthcoming, it seems safe to assume that substantive reform of job creation and manpower policy in general is depressingly far off. The tasks before those genuinely concerned with manpower policy and its implications for improving the lot of the disadvantaged are thus twofold. Research must continue to explore and improve ways of opening ever wider the gates of economic opportunity. Further, the results of that research must be disseminated in a form which is intelligible and persuasive to those individuals empowered to order national priorities. The case for reform is clear and strong. Today, however, active manpower policy in general and efficient location policy in particular remain ideas whose time has yet to come.

FOOTNOTES

¹Richard M. Bird, "Regional Policies in a Common Market," in, Carl S. Shoup, (ed.) Fiscal Harmonization in Common Markets (New York: Columbia University Press, 1967), Vol. I, p. 417.

²Ibid, and George H. Borts, "Criteria for the Evaluation of Regional Development Programs," in, Werner Z. Hirsch, (ed.) Regional Accounts for Planning Decisions (Baltimore, Md: Johns Hopkins Press, 1966), pp. 183-218.

³James R. Rinehart, "Rates of Return on Municipal Subsidies to Industry," Southern Economic Journal, XXXIX (April, 1963), 297.

⁴Bird, p. 417.

⁵"Created," as used in this paper, refers to the spatial variation of private labor demand which may, but does not necessarily, imply a net expansion of employment opportunity within the national economy.

⁶For an account of bold but unsuccessful efforts to develop both a theoretical methodology and an empirical methodology for a "real output" type of evaluation of location subsidy, see: Lawrence Victor Asch, "Selective Variation of Private Labor Demand: Rationale, Practice and Potentials," (unpublished Ph.D. dissertation, University of North Carolina, 1971), pp. 140-149.

⁷The term "arrangements" is defined here to mean both subsidy format and subsidy recipient.