***The Economic Rationale For Investing in Children: A Focus On Child Care*:**

Appendix B: Rationales for Public Sector Training and Other Investments in Labor Markets and Their Applicability to Public Investments in Child Care

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I. Introduction

In this paper I attempt, first, to explicate rationales which have been given for public sector investment in employment and training and, second, to suggest to what degree some similar rationales might be applied to argue for public sector investment in child care.

Before launching into the detailed discussion, I summarize here the types of rationales for public sector investment in employment and training. I provide this summary in the form of an outline which contains the sections of the paper which follow.

Human Capital Rationales

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After each section explicating a category of rationales as applied to employment and training, I provide a brief assessment of the degree to which that type of rationale might be applied to the case of public sector intervention in child care.

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II. Won't the Market Achieve Optimal Provision of this Service in the Most Efficient Fashion?

The traditional economist's approach to discussion of any government expenditure or regulation is to ask: why wouldn't this be better left to the market to accomplish? The demand is always to specify the nature of the *market failure* which requires government intervention to correct. The presumption is that, in the absence of clear indication of market failure, the free interplay of market actors will lead to a more *efficient* allocation of resources. By more efficient allocation of resources we mean the market action

will generate greater output (of whatever the good or service) at a given cost of resources or the same output at a lower resource cost. The economist's rationale, then, for any government activity is a litany of potential cases of market failure. I will therefore proceed to such a litany as applied to government intervention in employment and training activities.

A. Human Capital Rationales

Economists look at certain types of human activities as analogous to the creation of physical capital. Physical capital — such as plant and equipment — contrasts with other productive inputs. Other productive inputs, such as labor and materials, are immediately transformed in a short time period into products or services. Physical capital, in contrast, requires a large investment at the outset and then produces returns over long periods of time. Human activities which take the form of investment at an early period and yield returns over long periods of time are referred to as human capital. The most common example is education. Education usually requires the bulk of resources at an early period — the investment — and yields benefits over long periods of time, e.g., greater productivity through the working years. In the economists' most common model, those benefits take the form of increased productivity of the individual and are reflected in higher earnings over the period following the initial investment in education.

There are of course other types of activities which have been called human capital, such as investment in better health, e.g., immunizations, or better eating and exercise activities, in that they yield benefits over longer periods of time. And there are benefits other than just increased productivity in a work activity that can accrue from human capital investments.

The major rationale given for employment creation and training activities is that they create human capital and the expectation is that the payoff from the investments in employment creation and training activities will be increased productivity. The above-cited economist's query is: if these are such good investments why doesn't the free operation of private markets provide the optimal amount of such investment and at the lowest cost in resources used?

To attempt to answer this query one examines the theory of the behavior of the two potential private market sources of investment in employment creation and training: the individual and the firm.

Individual Human Capital Investment

In the economist's model, rational individuals consider all the alternative uses of the set of resources they control and what benefits will accrue from each use of resources. With respect to education and training, they assess the investment required — in terms of direct costs (tuition, fees, materials) and the indirect cost (earnings foregone while engaged in the education or training activity). Then they calculate the benefits which will accrue, e.g., higher earnings paid for deploying the learned skill, over the useable lifetime of that investment — how long they expect to be able to use that skill and earn a premium for exercising it. (There is an added element of the calculus. The potential investor discounts to get present values of the future benefits. I won't go into this here except to say that benefits obtained far in the future have a present value which is far less than the value of the same magnitude of benefit obtained in the near future). If the benefits exceed the costs, the rational individual makes the human capital investment. In this basic model, all human capital investments that yield benefits greater than costs would be freely undertaken through the market mechanism.

What factors have been cited which limit the reach of this model and lead to an argument for intervention beyond the free markets?

Poor Information

The rational person model assumes that for individuals there is good information available about both the costs and the benefits of the investment and that individuals are in possession of that information. Particularly, in this case, the information about the long term pattern of benefits and costs is important for the decision calculus. Where individuals do not, or cannot, access the relevant information, the market will fail to provide optimal outcomes with respect to human capital investments.

In the case of employment and training there are a variety of circumstances which could give rise to a lack of good information on the part of individuals, several of which I will return to below. For now, however, I will leave it that information failures may provide a rationale for the public sector to intervene in employment and training markets.

Externalities Are Ignored by Individuals

The term externalities embraces a wide variety of situations which may be cited as causes of market failures. The usual example given of externalities is a situation involving pollution. Pollution imposes a cost, e.g., bad air or bad water, on individuals exposed to it. The polluter can ignore these costs to others that his actions cause because the *market does not measure it as a cost*. The costs the polluter takes into account are only those he pays for in producing his good or service where as the social costs are those costs the polluter pays plus the costs to others imposed by his pollution. Externalities cause social costs and benefits to diverge from those costs and benefits the individual takes into account in making decisions.

For employment and training activities there are again a wide variety of externalities which can arise and cause social costs or benefits to diverge from those which affect the individual engaged in these activities. Again, I will return to a number of these in discussion of other categories of rationales below. Just one relevant example: suppose there is a critical skill needed for a given production process and the productivity of other workers is directly affected by the presence or absence of that skill. The individual deciding whether to invest in that skill may undervalue it, from society's point of view, because she herself will not capture the enhanced returns from providing that skill which will accrue to the other workers or to the firm because the critical bottleneck has been avoided. The public sector, taking the wider societal perspective, may intervene to foster the investment.

Individual Inability to Finance the Investment

While the individual may correctly assess the benefits and costs of a given human capital investment they may lack control over sufficient resources to make the investment. With respect to investments in physical capital, the investor can often borrow funds for the investment, pledging a return on the basis of future earnings. However, since the outlawing of slavery, rights to human labor are not an alienable asset. A contract in which an individual pledges the future earnings as collateral would not be enforceable in court if the contractor sought to collect the collateral. This is often referred to as "an imperfection in capital markets". The inadequacy of markets for borrowing against human capital is a rationale often given for market failure, especially as applied to liquidity constrained individuals. Here again, the public sector may intervene to offset the failure of the market and either facilitate borrowing or engage in direct production of the human capital at lower cost to the individual.

Application of Individual Human Capital Rationales to Child Care

All of the rationales suggested in this section for public sector investment in employment and training

would appear to carry over to a rationale for public sector investment in child care. As I go through these arguments I will, for the most part, stress potential positive benefits deriving from child care. It should be recognized, however, that there are also potentially negative effects emerging from individual parents' choices regarding child care; indeed there has been a long-running debate in some segments of the research community as to whether child care by other than the mother has negative effects on child development.

Poor Information. Surely individual parents will have difficulty assessing what the long term benefits (or costs) will be from having their child in a particular type of care situation. As I perceive it, assessments of what those benefits or costs might be over the long term remain disputed even among experts in the child care field(1). At a minimum, the public sector should continue to invest in developing better knowledge of what long term effects of alternative child care settings may be. A public supported effort at dissemination of such information as exists at present would also seem justified. Public regulatory structures are generally advocated as a protection against lack of information by consumers and thus regulation of child care is a public sector intervention meant to offset consumer lack of information.

The poor information rationale would apply both to arguments for public investments which increase the quantity of child care and to arguments to increase the public investment in the quality of child care. A particularly important public service would be to provide parents with better information about how various types of quality in child care are likely to affect long term outcomes.

Externalities Ignored By Individuals. As has been the case with public education for a long time, there is a widespread belief that the wider community benefits from healthier, more intelligent, participatory individual citizens. To the extent that particular child care settings can be shown to help increase the number of such individual citizens, they are creating externalities that may be ignored by the parents. Calculation of *social*, as opposed to *private*, benefits would include such community gains. Of course, there are more specific forms of this "better citizen" externality that could be counted: lower crime, less substance abuse, lower school dropout rates, etc. While individual parents might take such benefits into account with respect to their child's well-being, there are broader costs in the community — incarceration, substance abuse treatment — which could, due to better child care, be avoided. The avoided-community-costs might not enter the parents' benefit calculus.

Recently, there has been a rash of research studies by economists regarding "peer effects". Some clever work has been done — using the fact that at some colleges roommates are essentially randomly assigned — to get presumably unbiased estimates of the relationships between the behavior of roommate pairs, a form of "peer effect."(2). Also, as part of the debate over the benefits of small class size, it has been suggested that a major influence on classroom learning of a given student is the degree of concentration of disruptive children in her classroom(3). Thus better classroom behavior generated by specific child care settings for a given child could generate external benefits to that child's peers in the classroom. These external peer effects might not enter in to the calculus of individual parents.

Individual Inability to Finance the Investment. Clearly many types of child care are high cost. The costs are high relative to the incomes of families with only low skilled earners. This is particularly true for many low income single parents. Further, it is noteworthy that usually parents will have to be making investments in child care when they are at the early stages of their working careers and their current earnings are low relative to what their average earnings over their working years are likely to be. It is evident that many worthwhile investments in child care, from both a private benefit-cost perspective and from a social benefit-cost perspective, are likely not to be made because of parental inability to finance the investment. This would apply both to arguments for the quantity of child care and to those

for the quality of child care.

Human Capital Investment by Firms

Firms are purchasers of the skills created through human capital investments and they are also producers of skills. When, or why, won't the free market operations of firms lead to optimal and efficient human capital investments?

In his classic work, Becker made the distinction between *specific human capital* and *general human capital*. Specific human capital is a set of skills that increase productivity of workers in a narrow context — in particular, as applied to the production process and/or organizational structures of a given firm. The term general human capital refers to skills whose productivity is widely transferable across different production processes and organizational settings. This distinction is critical for assessing possible sources of human capital market failure due to the actions, or inaction, of firms.

General and Specific Skill Investments

The usual starting point is the argument that firms will invest in skill development only to the extent they can capture the full returns on their investment in worker training. The major way they capture the return is to increase the wage of the newly skilled worker by less than her productivity has increased. Where general skills are involved firms might make an investment in skill improvement of a given worker but, shortly after she is trained, a rival firm recognizes a now more highly skilled worker and offers her a higher wage. The rival does not incur the training costs and does not have to recapture them through a wage/productivity differential so can offer a higher wage than the firm that trained her. This phenomenon is often referred to as "poaching". Recognizing this potential scenario at the outset, the firm will not invest in providing the training in general skills. This problem is thought not to arise with specific skills because the greater productivity these skills engender does not transfer to another firm. Therefore, the training firm can capture the return on their training costs by increasing wages by less than productivity increases.

The point about firms underinvesting in general skills usually leads to the argument that, since the general skills can be redeployed at another firm and higher wages obtained, the individual worker should be willing to pay for training in general skills. This argument clearly interacts with those in the previous section dealing with the inability of individuals to finance human capital investments; they may be unable to borrow to make the investment. The next question usually posed is: Why can't the worker finance it by taking a lower wage during the training period, a "training wage"- the mechanism traditionally used in "apprenticeships"? Some answer: very low skilled workers may have inadequate resources to sustain themselves and their families during the "training wage" period, and there is too much uncertainty about the marketability of the skill they are investing in through acceptance of lower wages. Further, what guarantee is there that the employer who is paying them a "training wage" (less than their actual productivity) and thereby gaining benefits will, in fact, pay them a sufficiently higher wage later or that their "general skill" will indeed be recognized in the market or that there will be demand for it?[(4)]

Several types of public sector interventions — suggested or carried out — to offset this under-investment by firms in general training have been undertaken. One is promotion of more industry-wide apprenticeship systems; the prime example cited is the extensive German apprenticeship systems. Another form of "internalizing the externality" is to institute sectoral training taxes on a "play or pay" basis. Firms are taxed to provide general funds to underwrite training. If the firm "plays", by itself providing approved training at at least the minimum level specified, the tax is reimbursed (or they are

exempted). If they don't train themselves their tax goes to a central fund to subsidize training by other firms or by a public sector created and administered program. Another step that is sometimes thought to offset the uncertainty by individuals about the recognition of and payment of higher wages for their learned skill, is the creation of government-sponsored skill certification programs. And, of course, the public sector can, and does, provide general skills training directly, either fully financed by the public sector, or, in a few cases, with partial payment of costs by the trainee.

Asymmetric Information

I already noted above some of the information problems which could lead to a failure of the market to generate an optimal degree of investment in human capital. A literature has now grown up around the applications to employment and training investments of economic models involving asymmetric information.

The asymmetry in information can arise between the worker and the firm, or among firms. The relevant information in this case is information about workers' abilities and the degree to which they receive training. Further there is a possible interaction of abilities and training; workers may differ in their "trainability" so a given amount of training may increase the productivity of some workers more than others.

There are several ways in which these asymmetries could work either to decrease or increase the degree of training provided by firms. I will not try to reproduce the full array of models. To give just the flavor of how these work: I noted above that traditional theory suggested that firms will under-invest in general human capital because they risk losing their investment when competing firms bid away the trained worker. However, if the competing firm cannot determine the degree of training, or the degree to which the abilities of the given worker interact with the training investment, the asymmetry of knowledge will allow the firm that trains the worker to pay him somewhat less than his after-training marginal product — since the competing firm does not have complete knowledge of the degree to which training has increased that individual's productivity and therefore will not offer a competing wage that reflects that post-training productivity. Thus, here the firm giving the training can recapture its costs by paying a wage lower than the worker's post-training productivity.

In an interesting application of this type of model, an author (Autor 2000) has sought to explain a puzzling phenomenon: some temporary help supply firms provide computer skills training to workers. This training is general training and the above noted traditional model would suggest that temporary help firms would be the *least* likely to provide any general skills training since the workers they supply are effectively employed by others, the extreme form of "poaching". The author argues that the temporary help firms are providing not only workers to firms but also better information about the quality of those workers. Thus success in computer training can signal a more capable worker and this information is valuable to the firm.

It can be argued that government intervention could be structured to alleviate the impact of these asymmetric information problems. For example, the public sector can, and in some places does, subsidize temporary help agencies both to place and to train workers. Alternatively, through public training and certification programs, the public sector can provide information to firms about workers' abilities, trainability and productivity.

"Efficiency Wages"

In recent years there has been considerable attention paid in a variety of situations to the concept of what

is called "efficiency wages." Again there is a wide variety of models of firm and worker behavior to which the label of "efficiency wages" has been applied and, in most cases, a root problem is asymmetric information.

In most "efficiency wage" models, it is suggested that some firms may pay wages that are higher than what other firms would pay for workers with given characteristics (often referred to as "the market wage"). The primary motivation suggested is to lower the costs of turnover (losing some workers and having to hire their replacements) in the firm by making workers see this particular job as more valuable than others they might obtain in the market. The workers therefore have a substantially lower probability of quitting.

A related feature is the problem of monitoring effort made by workers. In situations in which the supervisory span is wide, it may be difficult for the firm to assure that workers are not "shirking" on the job. The higher, "efficiency wage" is thought to make workers feel that they have more to lose if they are caught "shirking" and fired.

Since the "efficiency wage firms" are paying above the "market wage" they will employ fewer workers than if they paid the lower "market wage". Thus "efficiency wage" behavior may increase unemployment — both because these firms hire fewer workers and because they may induce "wait unemployment"[(5)]. The existence of both types of unemployment serves, it is argued, to heighten the motivational force of the "efficiency wage", as the potential for losing the "efficiency wage job" through being replaced by someone from the ranks of the unemployed is that much more palpable.

While there are some discussions of how "efficiency wages" affect the allocation between general and specific training and who pays for it, these do not seem to lead directly to arguments for public sector intervention in training. For our purposes here, however, the "efficiency wage" focus on the desire of firms to reduce their workforce turnover and to elicit maximum effort can carry over to our discussion of rationales for public investment in child care.

Applications to Child Care of Rationales Related to Human Capital Investment by Firms

General and Specific Skill Investments. This distinction does not seem to me to have any carry over to the child care outcomes. "Training" is provided by the child care institution, which is a producer of whatever human capital results from a given type of child care. But unlike the firm, it is not also a utilizer of the skills (embodied in the children) it is helping to produce; all such skills it produces are *general*, not *specific* skills. The "poaching issue" does not arise in this context.

On the other hand, the issues about ability to finance the investment in human capital do have some carry over in the case of the liquidity constrained family. This is a slight variant on the argument above about individual inability to finance human capital investment. Because it is not possible for the family to borrow against the higher future earning of the child which may emerge as a result of the impact of the particular type of child care, there is again a "capital market imperfection." This may result in under-investment in human capital producing child care and an argument can be made, on those grounds, for public intervention to subsidize child care investments. The under investment would apply to both quantity and quality of child care. The fact that quality child care is likely to be somewhat higher cost would imply that relieving the liquidity constraint on families would be particularly important to encourage higher quality child care.

Asymmetric Information. Here we would simply repeat the arguments made above with respect to the effects of poor information on the part of individuals, but the force of the emphasis on asymmetry is

much less in this case. Much as in the case where there is an asymmetry between the worker and the firm as to what training is most productivity enhancing, there may be an asymmetry between the parents and the child care institution or child development experts about what type of child care is most "productivity" enhancing for the child. Thus, again, a rationale for government interventions is to reduce the information asymmetry.

Perhaps a closer analogy might arise with respect to asymmetry of information between the education system as a utilizer of the child's human capital from child care in its next stage of production of further human capital. The asymmetry could go in either direction. The parents may know more about the abilities of the child engendered by its child care experiences than do the education authorities. Or the education authorities may be more knowledgeable than the parents about the relevant skills engendered by a given type of child care experience, and how their subsequent human capital process should be adjusted in light of those abilities. Again, a case for further public sector intervention to offset the effects of the information asymmetry can be made.

"Efficiency Wages." Here we might pick up on the concerns that are said to lead to the payment of "efficiency wages," i.e., to reduce turnover at a firm by better binding workers to the firm or to induce greater effort on the job. Creating stability in employment and advancement in the job ladder for low skilled workers is often a stated objective of public policies. Though the connection may be loose, intervention to support child care might help to meet some of the concerns which are theorized to lead to "efficiency wages"; they may enhance job stability and increase worker effort.

Provision of child care for the children of workers is one form in which an "efficiency wage" could be paid. It could be through subsidization of child care, either as provided by the employer at the place of work or close to the worker's home so the trip to work does not require a long diversion to leave kids off at child care and pick them up. Good attendance is said to be an important ingredient for enhancing chances of advancement up the job ladder and ease of movement to child care can enhance attendance. We also hear a good deal about child illness as a cause of irregular attendance that can lead to dismissal. In addition, the problems of child care for those engaged in shift work are often mentioned. Public intervention to provide child care in these situations could be justified as contributing to the "efficiency wage" goals of greater stability of employment and reduced "shirking."

The basic issue is that public sector subsidization of child care could enhance stability in employment. It is not clear, however, whether just promoting any child care assistance by the firm is sufficient or whether clearly higher quality child care made available through the firm would make workers even more "loyal to the firm".

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B. Macroeconomic Rationales

In the late 1970s and early 1980s there was a considerable amount of discussion of rationales for public sector employment and training interventions which were based on macroeconomic concerns. Since I do not perceive much of a carry over from these rationales to child care, I provide only a cursory review as a matter of completeness(6).

Unemployment and Inflation

Explaining persistent unemployment — and how government policies might affect it — has been perhaps the central problem in economics ever since the 1930s (though the long expansion of the 1990s

in the U.S. has, for the moment, meant less attention is paid to this issue). The "Keynesian revolution" pushed government spending as a major countercyclical policy. In a recession, such spending could raise output and employment at a social cost less than the financial costs since it would mobilize otherwise underutilized labor and capital. Public sector employment programs were touted, particularly in the 1930s, as a major fiscal instrument for this purpose.

In the late 1970s and early 1980s we experienced a period of stagflation, with both high unemployment and high levels of inflation. This posed new problems for policy analysis since it was the general view that increased government spending to reduce unemployment could well lead to increased inflation. The belief was that there was, at best, an unemployment — inflation tradeoff and at worst that government spending to reduce unemployment below certain levels (the "natural rate of unemployment") would lead to accelerating inflation with no long term affect on unemployment.

At this point, economists began modeling the interaction of public employment and training programs and the unemployment-inflation trade-off. They sought to determine, among other things, the conditions under which government employment and training programs might yield more employment gains for any given degree of inflationary pressure than other forms of general government fiscal expansion would[(7)].

With respect to employment and training programs, the issue was the extent to which the programs either shifted labor demand towards high unemployment groups through targeted programs (wage subsidies or direct public employment would be examples of programs shifting labor demand) or shifted labor supply from those markets where there was an excess supply of workers toward those in which there was an excess demand (I discuss these types of programs in the following section on segmented markets). So the rationale for employment and training programs which follows from these models is that they may contribute to improving compatibility of low unemployment and low inflation.

Long Term Growth

In addition to the concerns about fluctuations in economic activity and the related short-term issues of unemployment and inflation, macro economics has devoted attention to determinants of the long term rates of national economic growth and how government policies may affect these rates. In the 1950s and 1960s "growth accounting" analysis sought to provide measures of the relative contribution of various factors to long-term growth rates. The traditional inputs thought to determine the level of national economic output were capital and labor. However, measured growth in labor and capital could explain only a small proportion of the total growth in national output. This left a large fraction of growth that was simply labeled "the residual factor." Immediately analysts sought to attribute the "residual factor" to other inputs. A leading one was a more refined measure of the growth of skills in the labor force, basically human capital. Much of the rest was simply labeled "technological change." The famous Solow growth model formalized the relationships between growth in inputs and the growth rate in aggregate economic output.

Interest in growth models faded for several decades, but just in the last ten years there has been a renewal of interest in new formulations of the Solow-type growth model which are referred to as endogenous growth models.

Applications to Child Care of Macroeconomic Rationales

The basic rationales applied to child care carry over, as in the previous sections, from the emphasis on investment in human capital. The more skilled the labor force the lower is the unemployment rate which

is compatible with low rates of inflation. Individual parents are unlikely to take into account this added benefit from having more human capital engendered in their children as a result of exposure to specific types of child care situations. To the extent they fail to do so there will be social benefits that will not be obtained and it may be sensible, therefore, for the public sector to subsidize the greater human capital in order to obtain these social benefits. This rationale would seem more salient for arguments for public investment in the quality of child care since that might be expected to contribute more to eventual skill development than mere quantity.

C. Segmented Markets Rationales

In the human capital rationales for employment and training investments, it is assumed that the investment results in increased productivity of the worker due to greater skill accumulation, i.e., more human capital. Now we turn to a set of rationales that lead to arguments for public sector investments in training and employment even when those investments do not necessarily lead to greater human capital.

In some situations there may fail to be movement of workers out of labor surplus markets into labor shortage market. In the classical model of labor markets this sort of disequilibrium between markets should not persist over time. Labor surplus markets should exert downward pressure on wages and labor shortage markets should exert upward pressure on wages and workers should move across the markets from surplus to shortage markets in order to take advantage of the wage differential. Situations in which such movements do not occur and disequilibrium persists are sometime referred to as "segmentation of markets."

The segmentation of markets could arise from a variety of barriers to workers' cross-market mobility(8). The lack of mobility could be geographical, with the barrier to mobility due to the lack of information about better opportunities in other areas, the costs of movement or the cultural attachment to a given area. In other cases, discrimination, either in employment or through residential segregation, could limit movement across markets. Inability to move wages downward in the labor surplus market has often been hypothesized as a reason for persistence of unemployment in labor surplus situations(9).

Public sector intervention can be formulated to enhance movement of workers across the boundaries of segmented markets. These could be programs that promote geographic mobility by providing information about distant job opportunities or by subsidizing some of the moving costs. Or they could be wage subsidies that increase labor demand in the labor surplus markets where rigidities have prevented downward movement in the nominal wage. The subsidies effectively lower the wage rate as the employer perceives it. They could be skills training programs which essentially relabel workers — even if they don't really increase inherent productivity — so they can qualify for the jobs in the markets with excess demand.

Public sector investment in training and employment in these cases is justified on the grounds that there are social gains from the reallocation of workers across the segmented markets and individual workers either do not perceive the gains to be made from switching markets or the institutional or social barriers prevent them from doing so.

Applications to Child Care of Segmented Market Rationales

The lack of child care availability may constitute a barrier which makes it difficult for workers to move across segmented markets. We often hear of the problems of workers who may want to take advantage of higher wages for second or third shift work but cannot find arrangements for child care that will fit with those schedules.

There may be some analogy as well in terms of segmentation of the child care market itself. The child care market could be thought of as segmented along several lines: relative care, unlicensed care, family day care and center-based care. More thought needs to be given to the question of whether this analogy can be pushed further in terms of sustained disequilibrium across these market segments.

Segmented market rationales may apply more to quality than quantity of child care since higher quality child care facilities are perhaps less likely to be located in low income neighborhoods. Public investment to make such quality more readily available in low income neighborhoods might free workers to more readily move across segmented markets.

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D. Distributional Rationales

Beyond rationales for public sector investments that are based on the sorts of market failures I have been reviewing, there is a general case often made for concerns about the distribution across the populace of command over resources and opportunities.

The economist's model of the operations of the economy takes as a given *some initial distribution of property rights* and the criterion of efficiency in the allocation of resources is defined *conditional* upon that initial distribution of property rights. Even if markets are working efficiently there will be inequalities in outcomes. Some of the rationales for public sector investment in training and employment are based on distributional criteria in light of the inequalities of property rights or inequalities in outcomes.

In the discussion of human capital rationales above I already mentioned some types of situations that could arise for which public sector investment is justified not on the grounds of market failures but on distributional grounds. For example, general training might not be undertaken because the individual worker would be unable to finance the investment in that training. A public sector intervention to facilitate such financing could be justified on the grounds of a more desirable distribution of opportunities to obtain human capital.

Education and Youth Programs

The public education system has always been justified, in part, on distributional grounds. Even given the public education system, there have been, in recent years, arguments for further public sector interventions on distributional grounds due to what some perceive as biases in the structure of the public school system in favor of those intending to go on to post-secondary education. In the late 1980s and early 1990s we had reports about "the forgotten half" of young Americans who would not go on to post-secondary education.

Two somewhat different public sector investments have been shaped with this "forgotten half" in mind. First, ever since the 1960s there have been major public sector investments in youth employment and training programs outside of the school system(10). Second, in 1994 the Federal government passed the School-To-Work Opportunities Act. This program provided funds to States to pass on to schools to help in the creation of curricula and programs designed to facilitate movement from high school to the work place(11).

Both of these types of programs could be justified on the grounds of distributional concerns (though they have also been justified on human capital investment grounds).

The "Second Chance System"

The youth employment and training programs have often been referred to as part of a "second chance system." Other programs included in such a system are employment and training for adults that include major elements of remediation for deficits in "basic skills", i.e., basic reading and mathematics. This category could include many of the employment and training programs funded first under the Concentrated Employment and Training Act (CETA) of 1973, then under its successor the Job Training and Partnership Act (JTPA) and finally under the latest formulation, the Workforce Investment Act (WIA) of 1998[(12)]. While most of these programs have been justified as skills augmentation under the human capital grounds spelled out above, they all clearly focused primarily on "disadvantaged workers" and in that sense were also justified under distributional concerns.

Skills Mismatch and Spatial Mismatch

In the later 1980s and in the 1990s two "mismatch" themes began to emerge which were turned into rationales for certain public sector employment and training efforts.

The "skills mismatch" theme focused on the apparent effects of changing technology and increased international trade, e.g. "globalization.[(13)]" The argument was that the changing nature of technology was increasing the level of skills required in most jobs at the same time that increasing international competition was reducing the opportunities in the U.S. for jobs that required relatively few skills.

The fastest growing segments of the population that would make up the future labor force were groups that were more likely to have a large proportion of low skilled individuals. These are groups whose members had higher probabilities of not completing high school and lower probabilities of continuing on into post-secondary education and, therefore fewer potential workers with high skills. Thus, it was projected, there was likely to be a growing mismatch between the skills required for continued vigorous economic growth and international competitiveness, on the one hand, and the skill attainment of many new entrants into the workforce, on the other. Public education, employment and training programs were all needed, it was argued, to reduce this "skills mismatch". The rationales for public employment and training under this argument were both long term growth, discussed above, and distributional concerns that large segments of the population might not get the skills needed to do well in the "new economy."

The "spatial mismatch" theme focused on the shifting location of jobs, particularly lower-skill-requirement jobs, from the inner city to the suburban fringe[(14)]. The argument was that technology had changed such that central city location was less advantageous. This resulted in a growth in jobs in the suburban fringe and a decline in employment in the central city. The jobs moved but the low skilled people were constrained in their residential choice — this was (and is) particularly true for African-Americans — and could not move to residences near the suburban job locations. Further, the public transportation systems were not well aligned to make the trip of workers from the inner city to the suburban jobs easy and inexpensive.

Public intervention to alleviate spatial mismatch would be justified on distributional grounds; the burdens of weakened employment due to these changes were being unfairly borne by inner city, particularly minority, persons. Interventions to alleviate spatial mismatch could be taken in terms of some of the "market switching" forms suggested above. In addition, programs to reduce residential segregation would be justified, programs to improve transportation from the inner city to the suburban job locations would be justified, subsidization of movement from inner city housing, particularly public housing, to housing in the suburbs would be justified.

"Soft skills", Contextual Learning, Social Capital and Social Isolation

I group together here some disparate themes that arose in the 1990s with regard to employment and distributional considerations.

Once again under the general heading of technological change in job requirements, it has been argued that, in addition to an escalation in required technical skills, the new organization of work puts greater emphasis on what have been called "soft skills." "Soft skills" include: ability to communicate clearly with co-workers, supervisors and/or customers, ability to participate in team work, regularity in attendance, and sometimes dress and diction. Particularly as employment has shifted away from industrial settings toward service industries, "soft skills" are believed to become more important. This combines, in some people's minds, with the increased social isolation of low skill inner city residents so that there is an increasing disjuncture between "work place culture" and "street culture." There has been an increase in publicly funded training programs that place heavy emphasis on "teaching soft skills."

Because of the perceived increasing penalties associated with weak basic skills — reading and math — and the aversion of many without high school degrees to classroom settings for training, a greater emphasis has been placed on "contextual learning," i.e., basic skills remediation that is achieved in the context of work-related materials. For example, remediation would be achieved in the context of the reading abilities necessary to understand basic manuals describing processes required for a given job or basic math necessary for calculations in running machinery or doing basic accounting calculations.

As already noted, "spatial mismatch" hypotheses have pointed to the decline in the economic well-being of residents of the inner cities, the increasing concentration of poverty in such areas and the social isolation generated in these processes.(15) Particularly in the 1980s and 1990s the concept of "social capital" analogous to that of "human capital" has been increasingly developed(16). These concepts have been invoked as part of distributional arguments for public sector intervention in labor markets of the sort outlined above for dealing with "spatial mismatch". A related part of the "social capital" concept is that of "bridging social networks(17)". Weaknesses in networks of some groups are hypothesized to create barriers to movement into mainstream employment. Some public training programs have been in part justified as serving to compensate for these weak networks.

Welfare Reform

Since the early 1970s there have been attempts to "reform" the Aid to Families with Dependent Children (AFDC) program which put emphasis on increasing work among AFDC recipients. In the late 1980s a major overhaul of AFDC was legislated in the Family Support Act (FSA). FSA put heavy stress on increasing work requirements for AFDC recipients but combined that with support for training programs designed to facilitate the movement to work by long term welfare recipients through "basic skills" training and combinations of "work readiness" instruction and, in some cases, higher skills training. It was clear that distributional rationales had underlain the AFDC program for some time and that the employment and training components were similarly targeted under distributional criteria.

Finally, in 1996 there was the Personal Responsibility and Work Opportunity Act (PRWORA) welfare reform which stiffened the work requirements for receipt of cash assistance, now called Temporary Assistance for Needy Families (TANF), and, most notably, put a time limit of five years over an entire lifetime for receiving TANF payments. Under this reform effort there has been a large increase in discretion of the States over how TANF funds are used and so there is considerable diversity in the range of employment-related programs which they have created. Almost all have extensive job search assistance programs, many have work readiness training, some have "basic skills" remediation, some

have short term public service jobs. All of these efforts have a distributional rationale. It was felt that if work is to be required of TANF recipients then some steps would need to be taken to assist the recipients, where needed, to get and hold jobs.

Applications to Child Care of Distributional Rationales

There are some repeated themes throughout this distributional section which possibly carry over to rationales for public investment in child care.

First, the basic distributional rationale derives from unequal access to resources and opportunities across the population. Unequal ability to finance access to child care is clearly analogous to unequal ability to finance job training.

Second, to some degree for custodial parents who are still in high school, access to child care can be an important component for increasing the chance of completing high school and to participate fully in school-to-work programs. Certainly for those who enter the "second chance" system, access to child care for custodial parents can be critical. In both these cases distributional rationales enter in because of unequal access to child care resources.

Third, in both the "skills mismatch" and "spatial mismatch" situations, access to child care for custodial parents can be critical in helping them overcome the mismatch. Particularly in the "spatial mismatch" case there are important locational considerations for custodial parents. If there is to be a long trip to work from the inner city to the suburban job site then child care location tremendously complicates the time necessary to complete the trip to and from work. The public sector could facilitate the development of child care slots near the homes of these workers or it could, on the other hand, subsidize child care facilities at or near the suburban job sites.

Fourth, social isolation can be reduced through the development of stronger neighborhood institutions. Common meeting at child care drop-off and pick-up might enhance connectedness. In some circumstance the child care program has become the site as well of parent training — it provides "teachable moments" for conveying better parenting practices. Perhaps "bridging social networks" can develop around the associations arising from utilization of common child care facilities. Public sector intervention to promote these opportunities could be justified under distributional rationales.

Fifth, though it is rather tenuous, one might argue that the foundations for "soft skills" can be built in the child care situation through an early exposure to socialization within a group of peers. In some of the debate over why the smaller class size in Tennessee's Project Star experiment may have had a positive effect some analysts have argued that the effect may work through better socialization skills developed in the small group setting.

Sixth, a particularly strong case can be made under welfare reform considerations for increased public investment in child care. If TANF recipients are going to be required to work then we need to take steps to try to make sure that they are able to work and affordable, accessible child care is a critical element in that process. This would hold not only for those currently receiving TANF but also for those "in danger of needing TANF". Public support for child care can help prevent the loss of employment and the necessity to resort to TANF.

Most of these distributional rationales would apply to arguments for public investment in the quantity of child care. The fifth rationale about "soft skills" might however be applied to arguments for support of quality child care.

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E. Area Redevelopment Rationales

There is considerable overlap with this category and previous categories. However, the major focus here is on "place-based" concerns versus individual concerns.

There has long been a concern about concentrations of disadvantaged persons in specific geographic areas. In some cases these are broad geographic designations, e.g., the Appalachians, the Mississippi Delta; in other cases they are smaller areas within broader geographies, e.g., inner city neighborhoods. In these cases, the focus has been on improving the "place" in order to benefit the disadvantaged persons residing there.

There has long been a tension between advocating improvement of the *places* where disadvantaged people reside and advocating moving the disadvantaged people to places where people may have better opportunities. In the case of inner city neighborhoods, this tension has been summarized in the apposition: "gilding the ghetto versus dispersing the ghetto."

Public investments have been rationalized in terms of some "place based" strategies that in turn relate to the labor market. It has long been argued that weakness in infrastructure and other facilities discourages business from moving into areas where many disadvantaged persons reside or that such weaknesses have led to the exit of business from such areas. In either case, the result would be lower employment opportunities. Thus the infrastructure investment is linked to the employment rationale.

Public investment in training and employment is justified under the rubric of "improving infrastructure" by providing a skilled labor force to attract or to hold industry in a given area.

A more convoluted argument arises from the "infant industry" (no pun intended) rationale for some activities to gain comparative advantage for a region. The argument is that some economic activities need, at the early stage of their development in a given region, protection from "excessive competition". Such protection is necessary in order for them to better learn how to implement the technology of that industry. They need to grow large enough to realize the economies of scale that, in turn, allow them to reach costs of production low enough for them to compete effectively in the wider market. Public investments could take the form of "protection against excessive competition", e.g., licensing requirements; special preferences in bidding for public contracts, e.g., minority set asides; or, more relevant, subsidization of the input costs (skills training, wage subsidies) or demand subsidies, e.g., health insurance subsidies.

Clearly a number of previously enumerated rationales apply to these area redevelopment situations, e.g., poor information, spatial mismatch.

Applications to Child Care of Area Redevelopment Rationales

I have already suggested the ways in which "place-based" problems can give rise to distributional rationales for public intervention in the child care market. Child care is a piece of the social and economic infrastructure that is necessary for sustaining healthy communities. Improving the quality of the labor force, which in turn serves to attract or hold industry, may — for many of the reasons listed above — require adequate child care. In at least one case that I am aware of in a rural area, the public provision of space for a child care facility within the area of an industrial park was said to have played an important role in drawing industries to locate in that area.

The "infant industry (again with apologies) protection" argument can be applied to child care in two somewhat peculiar ways. First, most child care providers are notoriously bad at management, particularly financial management[(18)]. Public sector investment to help providers "move up the learning curve" in business management can be an "infant industry" type justification. Likewise, creating adequate effective demand in a place one hopes to redevelop can help providers to realize such economies of scale as might exist. The vicious cycle of underdevelopment where, e.g., the lack of skills in the work force leads to the lack of employment opportunities which leads to a further lack of skill development, can apply to day care as well. The lack of sufficient demand for good quality child care in an area can lead to its lack of development; good quality center-based care may not develop in an economically depressed area unless there is subsidization (of either the provider or the parents, or both) for a period of time to create effective demand.

The area redevelopment rationales would appear to apply most to arguments for investment in quantity of child care.

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F. Merit Goods Rationales

The classic work in public finance by Richard Musgrave provides most of the framework of rationales for public sector interventions reviewed above. One final rationale for public sector intervention that he added was what he called *merit goods*.

This type of rationale has generally fallen into disfavor among economists. One economist is quoted in a leading public finance texts as follows:

> "The term *merit good* merely becomes a formal designation for the unadorned value judgement that [the putative merit goods] are good for society and therefore deserve financial support." (Rosen 1999 p. 52)

Economists, qua economists, don't like to be associated with "unadorned value judgments".

However, the other leading public finance textbook describes the merit good rationale as follows:

> "Even fully informed consumers may make 'bad' decisions. Individuals continue to smoke even through it is bad for them … Individuals fail to wear seat belts, even though wearing seat belts increases the chances of survival…There are those who believe that the government should intervene in such cases…; the kind of intervention that must be provided is stronger than simply providing information. Goods that the government compels individuals to consume, like seat belts and elementary education, are called merit goods.
>
> The view that the government should intervene because it knows what is in the best interests of individuals better than they do themselves is referred to as *paternalism*…." (Stiglitz 2000 pp.82-87)

In the labor market individuals may make "bad decisions" about what training to undertake.

The merit good argument extends not only to elementary education but to choices about secondary school continuation, post-secondary education and training opportunities. Some would argue individuals

may drop out or fail to enroll in training even though it would clearly "be good for them" or that their parents, who know it would be good for their child, are not sufficiently insistent on their pursuing such opportunities. These situations could give rise to "merit good" rationales for more compulsion to undertake these opportunities.

A more tangential merit good case arises with respect to the "free choice" of which programs to enroll in for skills training. Individuals have sometimes been drawn into long-term credit problems because of debts they incurred through enrollment in training programs that promised great results but delivered virtually nothing. The increased emphasis on provision of publicly subsidized training vouchers under the Workforce Investment Act has led to increased concerns in some quarters about the need to limit individual choice in these cases, perhaps through certification or other regulation of the training programs and constraining individual choice in the use of vouchers to regulated programs.

Some would extend the terminology of merit goods to public intervention in certain types of activities that the free market might not support. For example, public intervention in the training and subsidization of health professionals conditional on their serving for a period of time in "doctor shortage areas" in rural settings or inner cities has sometimes been linked to health services as merit goods for the residence of these areas. Similar arguments have been put forward for public intervention to try to increase the proportion of doctors entering into primary care as opposed to specialties such as surgery.

Applications to Child Care of Merit Good Rationales

The "merit goods" rationale is probably the most straightforward to carry over to day care. Children are clearly not able to determine the extent to which time spent in child care may be good for them in the long run. The parents are agents for their child but, in addition to lacking information about the long run benefits of child care[(19)], they may not be willing to invest in child care. Here, as with elementary education, society may decide that it is in the interests of the child, as well as society as a whole, to use public resources to at least influence, or at the extreme to compel, the parents to invest in child care. As noted in the second quote on merit goods, the rationale is sometimes referred to simply as paternalism.

Public sector intervention on merit good grounds could take many forms: subsidization of the parent's child care costs, subsidization of child care providers so as to lower costs, regulation of child care providers for health and safety reasons which parents might be unwilling to impose (by switching providers and/or paying the higher prices for safe care) or unable to impose.

"Merit good" rationales could be applied both to arguments for investment in quantity and to arguments for investment in quality child care.

G. Miscellany

Timing, Targeting, and Early Intervention

There has long been an argument as to whether public sector intervention to improve human capital outcomes is better made at the early stage of the life cycle or at the later stages. In his recent work Heckman argues strongly that intervention at the earliest stages is likely to be much more cost effective (Heckman 1999 p. 42). To a degree this is a matter best dealt with by resort to empirical evidence, which Heckman seeks to do. However, it may be useful to outline some theoretical considerations which impinge on this issue.

The traditional economist's model of rational investment decisions with respect to human capital which I

sketched at the outset involves the estimates of the costs of the investment compared to the estimates of the benefits where the benefits are expected to be gained over a long period to time. A part of the calculus involves *discounting* of those longer term benefits to their *present value at the point at which the initial investment is to be made*[(20)]. The longer the delay from the time of investment to the time of realizing the benefit, the lower the present value of the benefit. Thus one factor that works against higher valuation of the human capital investment in early childhood (in this case child care) as opposed to the human capital investment at adolescence or later (in this case skills training) is the long time period between the initial investment and the realization of benefits.

The contrary factor which works *in favor* of earlier investment and which has been stated in traditional human capital models is a longer period in which to accrue benefits. To the extent that benefits are limited to, for example, the remaining time in the workforce, investments in younger persons are likely to have a greater present value than those in older persons as there is a longer time period over which benefits may be realized.

Another consideration, cited by Heckman, is that there may be complementarities over time in skill development. Early stage skills may influence the returns to later stage investments in human capital, so, for example, higher "school readiness" engendered by specific types of child care exposure may generate higher returns to skill development investments in elementary school, and so on up a chain of human capital investments.

A counter consideration, however, is what has been referred to as "targeting" of public sector interventions. If public sector investments are justified on distributional terms to assist those with the greatest problems, then early investments may be much more poorly targeted than are those occurring later when the disadvantaged individual is more clearly identified. When talking about families in poor neighborhoods or children in poor families, we tend to forget that even though the probabilities of problems are much higher, the majority emerge without problems; while unemployment is high in poverty neighborhoods, the majority are employed; and while children raised in poverty are more "at risk" there is still a majority of "resilient" children who emerge without major problems. The same amount of public sector investment tightly targeted on those with problems may yield a far higher social benefit than it would if spread broadly across groups. While at present we have been hearing a great deal about early brain development and the importance of good developmental experiences at that time, in earlier debates about early childhood interventions the view that early deprivations could not be offset by later compensatory interventions was strongly challenged. To the extent that later compensatory action can be effective, tighter targeting on those in greatest need will be possible.

Working Parents and the Child Care Workforce

In attempting benefit-cost calculations for investment in child care, we should include in the benefits any direct benefits to the parents that come from an impact of child care on their workforce attainment. In addition, we should count benefits that come through increased family income which accrue to the children above and beyond the benefits (positive or negative) to the children derived directly from the child care experience, i.e., regardless of whether the child goes through child care or not, the child's well being may be increased by the goods and services attainable through the higher income of the parents.

One of the major problems facing the "child care industry" is the low pay and high turnover of child care staff. Of course, many of the issues regarding rationales for investment in training which have been reviewed above could be applied to the child care workforce situation as well.

I would argue that perhaps the deepest dilemma facing the expansion of child care derives from the

nature of what economists might call "the child care production function," that is the extent and types of inputs necessary to produce child care services (whether "low quality" or "high quality"). Basically, in this case, it is the high adult labor input required per unit of child output. This impinges on the two sides of the child care market equation. The costs of child care are driven by the costs of providing adult care givers. The demand for child care is driven by the ability (and willingness) of parents to pay for the care. The costs of child care will equal a high percentage of the earnings of low income parents, even if the child care giver's wages remain low. Without public sector intervention, the low incomes of parents will translate into either no child care for them or into low payments to the child care giver. When one adds to this dilemma arguments that "quality child care" requires either higher adult to child ratios or higher-skilled-adults to child ratio, or both, then the dilemmas become even greater. It seems to me that without substantial public intervention and subsidy, there is no clear way out of this dilemma; we are faced with a low paid, high turnover child care workforce or no child care for low income parents and limited day care provided by a better paid child care giver workforce accessible only to high income parents.

The authors of two interesting papers approach this dilemma from a different standpoint. In Folbre and Nelson (2000), the authors address the fact that as women move increasingly into paid work, many of the "caring tasks" performed at home become paid tasks negotiated through markets. Child care is foremost among such "caring tasks." They suggest that the economic rhetoric which simply transfers the traditional market models to these "caring tasks" may be misguided and harmful. Because they have shifted from the home where neither the "input" of the care giver nor the "output" of the child care were priced, the social valuation of both was not explicitly quantified. Then, as they move into the market place that lack of valuation may carry over into misvaluation in the new market-mediated state. They call for research to develop a new framework that better values the mixture of "love and money" that market-provided child care represents.

In a related paper, Nelson (2000) provides a review of the ways economists seek to explain why child care wages are low and an elucidation — particularly shaped for child care advocates — of the underlying assumptions and technical details of such explanations. She also suggests counter-arguments to these economists' explanations.

Neither of these papers provides operational directions as to how the deep dilemma of the child care production function might be overcome, but they do provide useful warnings about the dangers of relying on traditional economic rhetoric in determining policy in child care.

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References

Acemoglu, Daron, and Jorn-Steffen Pischke. "The Structure of Wages and Investment in General Training." *Journal of Political Economy*, vol. 107, pp. 539-572, 1999.

ENBibAcemoglu, Daron, and Jorn-Steffen Pischke. "Why Do Firms Train: Theory and Evidence." *Quarterly Journal of Economics*, vol. 113, pp. 79-199, 1998.

Autor, David. "Why Do Temporary Help Firms Provide Free General Skills Training?" Working Paper: National Bureau of Economic Research, 2000.

Barnow, Burt, Christopher King, and editors. *Improving the Odds: Increasing the Effectiveness of Publicly Funded Training*. The Urban Institute Press, 2000.

Barron, John, Mark Berger, and Dan Black. "Do Workers Pay for On-the-Job Training?" *Journal of Human Resources*, vol. 34, pp. 235-252, 1999a.

Barron, John, Mark Berger, and Dan Black. "Replacing General with Specific Training: Why Restricting Alternatives Makes Sense." In *Research in Labor Economics*, vol. 18, pp. 281-302, 1999b.

Betsey, Charles, Robinson Hollister, and Mary Papageourgiou. *Youth Employment and Training Programs: The YEDPA Years*. National Academy of Sciences Press, 1985.

Blau, David. "The Effects of Child Care Characteristics on Child Development." *Journal of Human Resources*, vol. 24, pp. 786-822, 1999.

Coleman, James. "Social Capital in the Creation of Human Capital." *American Journal of Sociology*, vol. 94, pp. 95-120, 1988.

Folbre, Nancy, and Julie Nelson. "For Love or Money — or Both?" *Journal of Economic Perspectives*, vol. 14, pp. 123-140, 2000.

Granovetter, Mark. *Getting a Job*. Harvard University Press, 1974.

Haveman, Robert, and Robinson Hollister. "Direct Job Creation: Economic Evaluation and Lessons for the United States and Western Europe." In *Labour Market Policy and Unemployment Insurance*, edited by A. Bjorkland, R. Haveman, R. Hollister, and B. Holmlund. Oxford University Press, 1991, pp. 5-65.

Heckman, James. "Policies to Foster Human Capital." National Bureau of Economic Research, 1999.

Heckman, James. "Is Job Training Oversold?" *Public Interest*, vol. 115, pp. 91-115, 1994.

Hershey, Alan, Marsha Silverberg, Joshua Haimson, Paula Hudis, and Russell Jackson. "Expanding Options for Students: Report to Congress on the National Evaluation of School-to Work Implementation." Princeton, NJ: Mathematica Policy Research, Inc., 1999.

Holzer, Harry, Keith Ihlanfeldt, and David Sjoquist. "Work, Search, and Travel Among White and Black Youth." *Journal of Urban Economics*, vol. 33, pp. 320-345, 1994.

Hoxby, Caroline. "Peer Effects in the Classroom: Learning from Gender & Race Variation." National Bureau of Economic Research, 2000.

Ihanfeldt, Keith. "Spatial Mismatch: A Review of Recent Studies and Their Implications for Welfare Reform." *Housing Policy Debate*, vol. 9, pp. 849-892, 1998.

Johnson, George E., and Richard Layard. "The Natural Rate of Unemployment: Explanation and Policy." In *Handbook of Labor Economics*, vol. 2, edited by O. Ashenfelter and R. Layard, 1986.

Johnson, James, Elisa Bienenstock, Walter Farrell, and Jennifer Glanville. "Bridging Social Networks and Female Labor Force Participation in a Multiethnic Metropolis." In *Prismatic Metropolis: Inequality in Los Angeles*, edited by L. Bobo, M. Oliver, J. Johnson, and A. Valensuela. Russell Sage Foundation, pp. 383-416, 2000.

Johnson, James, Walter Farrell, and Jennifer Stoloff. "African American Males in Decline: A Los

Angeles Case Study." In Prismatic Metropolis: Inequality in Los Angeles, edited by L. Bobo, M. Oliver, J. Johnson, and A. Valensuela. Russell Sage Foundation, pp. 315-337, 2000.

Lang, Kevin, and William Dickens. "Neoclassical and Sociological Perspectives on Segmented Labor Markets." Cambridge, MA: National Bureau of Economic Research, 1987.

Lazear, Edward. "Educational Production." National Bureau of Economic Research, 1999.

Lerman, Robert. "Is the School-to Work Movement on the Right Track?" Urban Institute, 2000.

Nelson, Julie. "Why Does Child Care Pay So Little? A Critical Guide to Common 'Explanations'." Center for the Study of Values in Public Life, Harvard Divinity School, 2000.

Putnam, Robert. "Bowling Alone." *Journal of Democracy*, pp. 65-88, 1995.

Rosen, Harvey. *Public Finance*. Irwin/McGraw Hill, 1999.

Sacerdote, Bruce. "Peer Effects with Random Assignment: Results for Dartmouth Roommates." National Bureau of Economic Research, 2000.

Self-Help. *The Business Side of Child Care*. Durham, NC: Self-Help. Revised March 1999.

Secretary's Commission on Achieving Necessary Skills. "What Work Requires of Schools: A SCANS Report for America 2000." U.S. Department of Labor, 1991.

Solow, Robert. *The Labor Market as a Social Institution*. Blackwell, 1991.

Stiglitz, Joseph. *Economics of the Public Sector*. W.W. Norton, 2000.

Zimmerman, David. "Peer Effects in Academic Outcomes: Evidence from a Natural Experiment." Williams College, Williams Project on the Economics of Higher Education, 1999.

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Endnotes

1. Blau (1999) gives the following overview of the literature: "Recent reviews of the literature… identify about 30 studies of the effects of child care inputs on child development or child behavior. Only about one-third of these studies provide interpretable results…Around half of [the 30 studies] find that either smaller groups, more staff per group, or better trained teachers have positive and statistically significant effects on child development and behavior. The others find either no statistically significant effects of any of the inputs or statistically significant effects of the 'wrong sign'….Most of the studies include only a few measures of the home environment…and do not consider the possibility of selection on unobserved aspects of the home. In view of this and...other problems…it is hard to know how much credence to give to the results of these studies". Pp.788,789 His own work, reported in this article, using the National Longitudinal Survey of Youth, leads him to the following conclusion: "Child care characteristics have little association with child development on average. Associations are found for some groups of children, but they are as likely to be of the 'wrong' sign as they are to be of the sign predicted by developmental psychologists". Abstract, p.786

2. See Hoxby (2000); Sacerdote (2000); Zimmerman (1999)

3. Lazear (1999).

4. There is recently an active publication of research related to these questions of whether and under what circumstances employer's might, or do, invest in general skills training. See, for example, Acemoglu and Pischke (1998); Acemoglu and Pischke (1999); Autor (2000); Barron, Berger, and Black (1999a); Barron, Berger, and Black (1999b).

5. "Wait unemployment" occurs when workers perceive that there is a potentially higher wage opportunity out there for someone with their level of skills and there is a non-zero probability they might get an offer of such a job. In this case, rather than take a "market wage" job, they remain unemployed and "wait" for a shot at the "efficiency wage job".

6. A somewhat fuller discussion of these rationales is provided in Haveman and Hollister (1991).

7. The "non-accelerating-inflation rate of unemployment" (NAIRU) was a central analytic concept in this approach. Analysts sought to determine which alternative government policies — including employment and training — would most contribute to lowering the NAIRU. See Johnson and Layard (1986).

8. In the 1960s and 70s institutional and radical economists argued that labor was barred from freely competing across labor markets because of institutional arrangements which essentially created different competitive conditions in various segments of the labor market. This disputed view was often referred to as "dual labor market theory." See Lang and Dickens (1987).

9. See Solow (1991)

10. See Betsey, Hollister, and Papageourgiou (1985) for a review and assessment of such programs.

11. See Lerman (2000) and Hershey, Silverberg, Haimson, Paula, and Jackson (1999) for a brief history and assessment of school-to-work efforts.

12. See Barnow, King, and editors (2000) for a quick review of the history of these programs and recent appraisal of effectiveness.

13. See Skills (1991).

14. Holzer, Ihlanfeldt, and Sjoquist (1994); Ihanfeldt (1998).

15. See Johnson, Farrell, and Stoloff (2000).

16. The noted landmarks in this development are: Coleman (1988) and Putnam (1995).

17. The major exposition on networks and employment is found in Granovetter (1974). See Johnson, Bienenstock, Farrell, and Glanville (2000) for a recent concrete application.

18. The fact that many state government and resource and referral agencies run course for child care providers on business management is evidence for this statement. Here is a quote from a manual for child care advocates and lenders: "Our years of experience lending to child care providers have shown

that the lack of technical assistance on management issues is a major barrier to the expansion and quality improvement of the field" p. 3 Self-Help (1999).

19. This is a classic example of what in the economics literature is referred to as the principal-agent problem. The problem is that the goals of the principal and agent will not perfectly coincide. An agent may make side-deals that further his goal (more profit) at the expense of sacrificing some of the goals of his principal. I could have introduced this terminology at several places earlier but have deferred it until now.

20. The discounting to present values is necessary in order to *compare* different investment opportunities which may have quite different time patterns in the benefit stream. Some investments may yield high benefits soon after the initial investment but tail off rather quickly after that, while other investments yield low benefits in the first few periods after investment but then grow to be quite large over the longer period of time. In order to compare these two investments we need to collapse the time dimension so we can compare the benefits directly in a single dimension. We collapse the time dimension by discounting future benefits into a single present value. The discounting reflects the fact that benefits that are realized early in a time period can in theory be reinvested in some other investment opportunity and earn more benefits there; there is an opportunity cost in waiting for benefits which can only be realized later in the time period. By discounting to present values we distill the diverse time patterns into a single dimension which allows direct comparison across the diverse investment opportunities.

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