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ABSTRACT

This document is the fourth and final part of a comprehensive study designed to review child development data and program evaluation data so that proposals for Federal program planning can be made. This section (Volume 4) provides a summary of the topics, findings, and recommendations of the other three parts of the study. (DP)

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**FEDERAL PROGRAMS
FOR YOUNG CHILDREN:
REVIEW AND RECOMMENDATIONS**

**SUMMARY
(VOLUME IV)**



1973

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**Department of Health, Education, and Welfare
Washington, D.C.**

FEDERAL PROGRAMS
FOR YOUNG CHILDREN:
REVIEW AND RECOMMENDATIONS

SUMMARY

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FEDERAL PROGRAMS FOR YOUNG CHILDREN:
REVIEW AND RECOMMENDATIONS

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SUMMARY OF REPORT

FEDERAL PROGRAMS FOR YOUNG CHILDREN: REVIEW AND RECOMMENDATIONS

This study reviewed existing data about child development and evaluations of programs for children as a basis for recommendations for federal program planning. It dealt with disadvantaged children aged 0 - 9 and the federal programs now set forth for their assistance. The study was an extended examination of two recent premises about government action on behalf of such children--first, that program planning can be guided by child development data and program evaluation data and, second, that goals for such programs can and should shift from crisis intervention toward a broader concern for the enhancement of child development.

At the heart of the issue to be addressed is the question of what childhood disadvantage is. But 'disadvantage' is a complex and surprisingly subtle notion. It required several steps in thinking to come to a definition of 'disadvantage.'

The term 'disadvantage' is widely used -- in public discussion, in scientific writings, in congressional testimony -- and a first step in understanding it comes when one recognizes that it is applied to many sorts of children, many negative circumstances, many problems of childhood. When solutions for disadvantage are proposed, this multiplicity at times seems to be stereotyped, as when the problems of the 'disadvantaged' child are identified with those of the average black child or the average poor child. At other times this multiplicity seems to be preserved but in an unclear way, as when it is argued that programs or services for children should be comprehensive but without any indication of the kind of diversity implied in comprehensiveness.

Examining the various usages of the term, five standards of disadvantage can be identified, each of which is necessary if one would include all of the children identified as disadvantaged in various public discussions. These standards are: (1) income; (2) ethnicity; (3) home environment-social class; (4) crisis; and (5) equity. They are correlated standards, in the sense that a child identified under one will generally also be identified under others. But not all children, nor all relevant problems, will be included unless all the standards are applied.

However, not all children deviating from the norm with respect to such standards will be defined as disadvantaged. Only some will. What kind or degree of deviation from the norm according to these standards will qualify a child as disadvantaged? Generally, it seems that the degree of deviation will be deemed serious if it is seen as jeopardizing certain "public purposes" with regard to the upbringing of the children. A person takes an interest in every aspect of the well being of his own child, but there are only a selected number of issues that will bring about a concern for the upbringing of the generality of children in one's society. The public purposes reflect these issues. They are to some extent issues of the present and future well-being of the society, and they are to some extent issues of compassion extended to children as well as to others in the society. Historically, public intervention in child care and upbringing seems to have originated in these public purposes and, at root, the notion of 'disadvantage' appears to arise from them. They are:

1. To see to it that a child learns and develops in such a way that he can take up some reasonable vocational or economic place in society.
2. To provide for "political socialization" in the early years: to assure that normative standards of American life, patriotism, and a conception of self as related to society, are instilled in the child as he grows up.
3. To regulate the labor market by (a) restricting the use of children as laborers, and (b) providing supervision for the child to release the parents for employment.
4. To provide help for the child in certain kinds of crisis situations--on a compassionate basis or on the basis of calculating ultimate benefit to society, or both.

The disadvantaged child is, in general, that child for whom the expression of these public purposes is inadequate . . . for whom there does not seem to be a clear path to some economic place in society, who grows up feeling excluded rather than included in American society, or who is at risk because of a variety of family crises, handicaps, or health factors.

The value of a conception of public purposes seems to lie in the understanding it offers that public intervention on behalf of children has been, and probably is still, guided by certain constant and definable motives. If one examines the history of public programs for children, one sees these motives in existence from the colonial

period forward. As American society has changed over the years the pressures of factors like industrialization, immigration, and urbanization have put strains upon traditional roles and institutions. Older arrangements for the care and upbringing of children have felt these strains. In addition, social institutions having implications for the upbringing of children have changed -- patterns of housing and community life, the amounts and kinds of adult employment available, the role of women in the labor market. When such changes have brought some children in jeopardy -- a jeopardy defined as a shortcoming in the expression of the public purposes for them -- such children have been regarded as a subject for public concern.

It seems useful to imagine a system of implicit "contracts" governing the divisions of labor among those who take care of children. There is such a contract between the middle class family and the public schools today. The family will teach the child English. It will give the child training in manners and mores; it will give the child an expected amount and diversity of intellectual experiences; it will have schooling in mind and it will be concerned in diverse ways to make his expected entrance into school successful. Schools depend upon some degree of such family activity. There is another such contract between the middle class family and the pediatrician, by which a cooperative pattern of activity concerned with the child's health is established. An elaborated system of such "contracts" exists in our society, providing for the sharing of child care and upbringing among family, schools, and various professionals and providing, further, for social patterns of support stemming from private charities and the several levels of government. At the heart of this system of contracts is the family. Institutions dealing with the "normal" or "average" child are keyed to expected "normal" or "average" family performance. Usually, although not always, the child who is seen as disadvantaged is that child for whom the family cannot or does not provide a "normal" or "average" amount of care and upbringing. As might be expected in any system governed by contracts, however, this kind of problem is open to some dispute. It is at times argumentatively assigned as the family's weakness, as a matter of weakness in the child, or as a matter of weakness in the social institutions that surround the child and the family.

It seemed worthwhile during the course of the study to try to examine the historical expression of the public purposes governing childhood, as manifested in changes in the various social contracts governing the upbringing of children in American history. There has been a historical rise in governmental involvement in the care and upbringing of children, and a brief glance at history suggests the kinds of circumstances that has brought about that rise:

Preparation of children to assume adult economic roles. There has been a shift from family and private responsibility for such preparation to public auspices and, since 1850, there has been a steady trend toward more publicly-sponsored schooling for more children.

The trend toward schooling has been supported by public beliefs that the public schools would: (a) adjust the child to the work roles of an industrial society; (b) clear the streets of unemployed youth; and (c) by teaching skills, make all children economically productive.

Recent debate has focused on the extent of the vocational function of the schools, and the extent of responsibility to be assigned to schools if they do have this function. Do schools now represent a fully rational investment in vocational development of individuals or economic development of the society? Will increased investments in the schools increase their utility in these regards? Can the federal government, through schools and the principle of "equality of educational opportunity", insure equal opportunity for all citizens to participate in all economic roles?

Assimilation of children into a socially cohesive nation. With the coming of public schooling, there has been a persistent belief in the use of the schools to "Americanize" children.

Arguments for this function have been historically prominent whenever large waves of immigrants have come into American society, particularly when their foreignness or ignorance of American traditions have been perceived as socially disruptive. Since the 1960's, when the first vigorous attempts were made to include Blacks, Indians, and Spanish-speakers in the vision of a unified American culture, there has been debate about the function of the schools in assimilating these groups.

The assimilative function of public schools is real and rational. Public funds are reasonably used to re-create and strengthen an American social cohesion. Current events demonstrate the problems of maintaining unity in non-homogeneous societies. Schools are one instrument of a more complex assimilative solution in the future, either the traditional "melting pot" solution or that more complex solution envisioned in the notion of a "pluralistic" society.

Partial regulation of the labor market. One reason for the rise of public schooling has undoubtedly been the increasing social need for a more educated labor force, but there have been other factors connected with the labor market as well. Historically, the rise of the schools has been tied to concern for the restriction of the use of children in labor. When children moved into the public schools

en masse this corrected conditions of abuse in labor that had been a matter of social concern for some decades preceding. Their move into the schools may also have reflected a marked lessening of the need for children in the labor market. One can ask whether the trend in this century for more and more children to seek more and more school reflects simply the pull of the schools or, as much, the push of a shrinking supply of jobs.

Of some importance, also, has been the utility of the schools in freeing the parents for labor by providing some amount of day care. Public policy regarding children has recently been influenced by demands for extensions of publicly-supported day care. Since 1967, attempts have been made under WIN child care and state and local day care services to encourage mothers of families on AFDC to get jobs. There is less consensus on the government's role in supporting day care for other income groups.

Public Care for children at risk. "At risk" categories of children have always been subjects of social concern and responsibility. Many kinds of children at risk have been treated by public action for centuries: the physically handicapped; the diseased; the emotionally disturbed; the mentally retarded; orphans; children of disabled or absent parents; the neglected or abused.

Historical trends in care for children at risk have led to: (1) extensions of services to more children; (2) enlargements of the proportion of children defined as "at risk"; (3) increases in differentiated categorical services; (4) a progressive transfer from private to local, and then to state and federal responsibility; and (5) the relatively more rapid development of these trends in urban than in rural areas.

The "Disadvantaged" Child in the 1960's

During the 1960's there began a new forward movement in programs for children and in public concern for children. It seems fair to say that for many people, this seemed like a new impetus not connected with a past and a history. In fact there was much in the movement that seemed directly related to the issues of the 1900's, the period that had produced the first White House Conference on Children and Youth and had led to the creation of the Children's Bureau; and the issues of the 1930's, the time when Social Security and AFDC had come into being. What was most prominent in public discussions and what seemed new was the issue of the Blacks and the Poor, for a time treated as virtually synonymous with one another. What also seemed new -- and, in a sense, was new -- was the heavy use of scientific data of childhood in justifying programs of action for Black-Poor children. Closely related to the seeming promise of such data was also the move, for the first time, to formally provide for the collection of data about the children in the new programs created at that time to allow for official evaluations of program effectiveness.

As is usually the case for political programs, the initiatives towards programs for children rested on compromises among several conceptions about the central issues to be addressed. These several conceptions are found blended in the thrusts of the programs. For example, some of the following issues are addressed by recent activities on behalf of children:

1) The issue of community action and community control. Some have seen children's programs as part of a complex of activities designed to bring about political and institutional participation on the part of the poor. They have felt that a central goal for such programs is to bring about some degree of power on the part of the poor to force institutional responsiveness. Thus, Head Start was originally designated as a Community Action Program and some originally argued that a prime purpose of the program was to draw parents into community action. Follow Through and the Elementary and Secondary Education Act programs have placed emphasis on parent advisory groups and parent participation. The recent report of the Joint Commission on the Mental Health of Children recommended a nationwide system of Advocacy for children, a theme picked up by the recent White House Conference on Children, and embodied in the recent fundings of demonstration Advocacy and 4 C's projects.

2) The issue of service coordination and comprehensiveness. Some have seen the newer programs as extensions of the services offered under the aegis of the series of older programs for children. They have been concerned to address a contemporary problem in the administration of services under the older programs, their redundancy and discoordination of services and the difficulty in achieving

comprehensive services for children. Thus, Title IV B of the 1967 Social Security Amendments provided for support of comprehensive services on behalf of children. Head Start and Follow Through were mandated as comprehensive service programs. The goal of the Parent-Child Centers has been to achieve comprehensiveness of services.

3) The issue of family support. Some have seen the contemporary family as in distress because of a complex of contemporary social forces. The early wave of programs of disadvantaged children was concerned to bring children intellectual, social, and emotional stimulation that might not be available under difficult family circumstances. The issue of early education and early stimulation through resources outside the family has been the most commonly understood central issue of the Head Start Program. More recently, emphasis has shifted towards the use of programmatic resources for relief of the family in the several recent initiatives towards the provision of a national day care system.

4) The issue of child development. The central issue in all programs for children is, in a general sense, the betterment of children's welfare and the fostering of child development. The recent programs have emphasized some rather specific assumptions about children's development, and have been concerned to make a direct effort to intervene in their development. It has been argued that poor children or, more generally, all children living under conditions of disadvantage, may suffer serious environmental deprivations or deficits in their early years. These early circumstances may be critical for the child's development because it may be difficult or impossible to correct for them in later life. And these early circumstances may be critical in determining subsequent serious trouble for the individual and for society when the child reaches adulthood. Viewing the problems of disadvantaged children in this way, it becomes quite important to try to provide for proper early environment of the child.

Various kinds of scientific data have been invoked to support these arguments for the special importance of early intervention. Of particular significance has been a special, restricted version of this argument. There is a notion that human IQ is plastic in the early years, modifiable by a stimulating environment, and this notion has led some to envision the purposes of early childhood programs largely as directed at IQ modification. This has given rise, in turn, to a counter argument holding that the IQ is largely determined by heredity and, therefore, there is not much hope for early intervention programs.

The four kinds of issues just discussed have determined much of the design and discussion about recent government programs on behalf of disadvantaged children. Our concern, in this analysis,

is largely directed toward the last-named issue, the issue of child development data that are now seen as defining critical deficits or deprivations of disadvantaged children. We are concerned with our present ability to determine program effectiveness through such determinations.

Critical periods and early experience

Many of the educational intervention programs currently being implemented for children under six years of age are based on beliefs about the criticalness of human early experience for further development and later functioning. How well founded are these beliefs?

The concept of critical period, in general, refers to a time span during which specific experiences can irreversibly alter later functioning. As used in embryology, the critical period refers to the time during which an insult may have an irreversible effect on the later form and functioning of an organ or organ system. Clear evidence exists for critical periods in the embryological development of both animals and humans. By analogy to the fields of embryology and ethology, some psychologists have argued that there may be periods in human postnatal development during which certain environmental stimuli exert their maximum effect on some physical or behavioral characteristics of the organism.

Present data concerning sensitive periods in behavior development come from a large body of early experience studies with animals and a limited body of evidence from humans.

Animal studies have explored the effects of (1) deprivation of normal environmental experiences, (2) enrichment of the environment, and (3) stress. In general, these studies support the notion of some form of sensitive period for socio-emotional and some forms of physiological development. For intellectual development, the evidence is less clear. Furthermore, the precise amount of stimulation necessary to produce effects is not easily determined, and often effects have been found only after animals have been placed in extreme, out-of-the-ordinary, environments.

Most human studies have focused on the effects of deprivation, i.e., of institutionalization and mother separation. It is clearly not possible to do direct manipulation of early human experience, and such information as we have comes from infants in unusual circumstances. Little is known with any certainty about the effects of enrichment and of early stress.

Studies of maternal deprivation and separation typically report only short-term effects, and it has been difficult to determine with accuracy such important probably modifying variables as the conditions surrounding the separation and the quality of the pre-separation environment. For the most part, the data are inconclusive except for rather extreme situations. Children institutionalized from an early age show retardation in language, motor, and socio-emotional development. Where studied, few long-term effects have been found unless the deprivation itself has occurred over a long period of time. Studies of mother separation suggest that the immediate effects of separation from the mother and mother figure are greatest between the ages of six months and three years. This period is argued by some to be a sensitive period for the formation of human attachments and later social development.

There had been few experimental attempts to enrich a child's environment outside of institutions until the mid-1960's. The classic studies of Skeels and his colleagues and B. White's recent infancy research are frequently cited as evidence of plasticity in human development. Because their subjects were different from the norm in many ways, however, the studies do not indicate the possible plasticity of the average child within the range of average environments.

At the present time, it is clear from the animal and human data that both extreme (e.g., continued conditions of isolation, deprivation or enrichment) and a few seemingly minor (e.g., stress immediately after birth) alternations can have immediate, if not long term, developmental consequences. (1) Animal research has indicated that physiological changes in brain weight and chemistry may result from special environments (at both early and later ages); (2) changes in perceptual and cognitive functioning occur as a result of changes in brain physiology; (3) early experiences with other members of the species, peers and parents, may affect later social and sexual development in humans and other animals; (4) early perceptual experiences may be crucial to the normal development of sensory systems and may be dependent upon motor experiences for input; (5) early stress seems to affect the development of stress systems (hormonal and neurological); and (6) the more severe in intensity and length the deprivation, the more domains seem to be affected.

In summary, if we take the comparatively rich data from animals, it can be said that we know definitely that early experience can have significant determinative effects on later development. However, we know this through extreme studies. We do not know how well buffered the animals' systems are against more minor variations or, if they are not, how significant the effects of those variations might be. We do not have a systematic understanding of how early experiences of animals act and interact. Our data for humans are comparatively quite sparse. Although theorists like Freud have strongly argued

for the critical importance of early human development, subsequent data have not elucidated the arguments to the point where we can use them as bases for specified interventions. Our data do not establish the existence of human sensitive or critical periods in early life . . . nor do the data exclude their existence. The issues are not settled. We cannot yet project on a scientific basis critical events and circumstances that should be the target of early childhood intervention.

Modifiability of IQ. The standing alternative to the sensitive period argument for intervention is a hereditarian argument against intervention. Recent public debate has focused on the possible modification of IQ through early childhood programs, especially programs for black children, and has revived the argument that lower IQ scores may be unmodifiable. This debate radically oversimplifies the issues for child development programs, and finds unwarranted conclusiveness in the research literature on the subject.

Although it is likely that the heredity versus environment argument will continue to be debated with regard to IQ, the data do not support extreme positions. What we know is that (1) the IQ among individuals of differing socioeconomic status is likely to reflect, in part, hereditary factors; (2) racial differences in IQ could conceivably reflect genetic factors, but one cannot justifiably use indices of heritability based on white data to make judgments about members of a group who through social discrimination are crowded towards lower socioeconomic status; and (3) no scientific data preclude the possibility of a permanent elevation of IQ through environmental manipulation -- nor do any scientific data conclusively prove that it can be done.

It might be added that the heated debates about the inheritance of IQ reflect some large and unwarranted assumptions about the meaningfulness of this index number. Over this century, IQ testing has become popular in American education because, for better and worse, such testing has allowed us to systematize and objectify some difficult human and social decisions. But it is not clear that the IQ test is a definitive measure of human intelligence or capacity or ability in the sense or senses in which they are commonly understood. In a rather famous scientific definition, the IQ test restricts itself to determining "the intelligence that the intelligence test tests". Nor is it clear that intelligence as estimated in any way should be regarded as the complete basis of human merit. There have been discussions recently in which questions about the heritability of IQ have been linked with the issue of whether American society is or is becoming a meritocracy. It would be nice to settle once and for all the question of whether human destiny is decided by fate or

circumstance. However, the apportionment of hereditary versus environmental variance in IQ tests will not settle this question. IQ testing has some demonstrated utility in a statistical predictive sense. But it would be unfair and unreasonable to project serious social decisions for or against intervention on the basis of the presently known properties of the IQ index.

Prediction from childhood to adult characteristics

In order to intervene successfully in childhood to enhance adult functioning, it would be useful to know the relationships between childhood circumstances and adult status. Life history studies have provided some information on the relation between events and circumstances in childhood and those in later life. The life history studies reviewed were: (1) studies assessing the stability of human characteristics over time, (2) follow-up studies of variables in childhood thought to significantly influence adult life, and (3) studies which start with various adult characteristics and "follow back" to childhood to attempt to determine their antecedents.

Stability of characteristics over time. Some efforts have been made to test children repeatedly on the same characteristic as they grow up, in order to try to estimate the stability or instability of the characteristic during human development. Unfortunately, such studies are extremely time-consuming and extremely rare. The few studies we have suggested are the following:

- Excluding obvious conditions of retardation, scores of child development during the first year of life bear little predictive relationship to later IQ. However, the correlation with IQ at age 16 is around .92. These data suggest that human IQ stabilizes at around adolescence. Unfortunately, there are technical features of present-day IQ tests that tend to force the appearance of such stabilization. Those technical features were built in when some data convinced the early test-makers that there is an asymptote of human mental ability of adolescence. It is not certain that that assumption would be reconfirmed today.
- School achievement also is somewhat stable over age. The direction of consistent changes in achievement appear to be related to the environment of the child.
- Very little is known about the stability of human personality characteristics through development. It is difficult to be certain that the same human trait is being assessed at different ages. Currently, two characteristics have showed some correlation from the preschool years to maturity --aggressiveness in males and dependence/passivity in females.

Predictive factors. Literature concerning several commonly-studied predictors was reviewed--birth difficulties, single parent families, child abuse and neglect, and mental retardation.

- There is a relationship between premature birth and later lower IQ scores, lower school achievement, deviant behavior, and physical defects. Poorer children are more likely to show the constellation of deficits than their peers, and there is an argument that favorable family circumstances may act to moderate or counteract the developmental risks coming from prematurity. Similar effects of anoxia or perinatal stress on later IQ, personality, and achievement are suggested, but the findings here are less consistent. The relationship seems to depend a great deal on the severity of stress and the time of measurement of detrimental consequences. Some evidence indicates that both the incidence of birth difficulty and its tendency to bring about later negative effects are associated with family characteristics related to low socioeconomic status.
- It has been argued that a father's absence from a home bears a causal relationship to male children's delinquency, low intellectual ability and achievement, and poor psychological and social adjustment. The evidence supporting this argument is weak. At this time one can conclude only that the impact of father absence seems to depend as much on the family conditions before and after separation as on the physical presence or absence of the father. It may be that here, as in the case of prematurity, other favorable family circumstances may moderate or counteract the possible negative effects of father absence.
- Longitudinal research on abuse, neglect, and undernourishment as a result of maternal deprivation is quite limited. The existing research suggests a relatively high proportion of serious negative effects of continual abuse, such as brain injury, mental retardation, permanent physical injury and emotional problems.
- Studies conducted during the early years of this century indicated that familial mental retardates often adjusted well in the community, found unskilled though marginal employment, and in general had fairly positive life chances. Recent studies have shown the mildly retarded to have become distinctly more marginal in terms of adult income and social class. The social adjustment of a low IQ individual, then and now, depends on a number of social and personal qualities. IQ alone is not determinative. In general, however, it appears that as American social frame has changed, as there has come to be less place for unskilled labor, the predictive consequences of early familial retardation have become more predictable and more negative.

Adolescent or adult variables. Four outcome statuses were considered: juvenile delinquency, school failure, income, and occupational success.

- Almost all known or imaginable adversity and stress factors of early childhood have been proposed as direct sources of delinquency. Repeated attempts to pin down a single controlling variable -- IQ, SES, cultural difference, family pattern -- have not been persuasive thus far. One problem may be that the incidence and distribution of delinquency is distorted in arrest-record data. Another may be that delinquency is so heterogeneous an outcome status that it is unreasonable to trace that status back to anything but gross, probabilistic, interacting sources.
- Although the dropout rate in schools is declining, a significant number of students continue to leave school before high school graduation. Efforts to predict dropouts have concentrated on early school difficulties, personality characteristics, and environmental factors. This line of studies cannot yet indicate which of a large number of potential dropouts will actually leave school, nor have effective preventive projects been developed.
- Income and occupational success have been related to region of birth, race, family size and stability, and parent education and income, but the complexities of the interactions make it virtually impossible to identify, except at the extremes, determinants of variations in adult income or educational achievement.

Summary. The literature reviewed does not point to powerful single variables in early childhood that can be manipulated to positively affect large segments of the population of children. We do not know enough about human development to identify precisely the developmental antecedents of particular adult characteristics and, in fact, the whole notion of identifying simple or specific factors in early childhood may be deeply misleading. The one generalization emerging again and again is that a number of factors and their interactions must be considered simultaneously.

For example, two of the potentially negative factors in childhood, prematurity and single parent family, are said to interact with SES. Low SES can be conceived of as a generic term which refers to a variety of potentially negative influences on development, encompassing within its scope low income, poor living conditions, delinquent peer groups, family stress, health risks, low expectations, etc. We do not know what to make of an observed influence of "SES". The multiplicity of the potentially

negative influences would not only render one variable prediction virtually impossible, but also lead us to expect that the success of an interjected one-variable "positive influence" would be minimal.

Arguments have been made for decades that social phenomena -- e.g., the socialization of the child -- must be studied as resultants of fields of dynamically interacting factors. Unfortunately we do not as yet know how to model network causation in any rigorous way.

In the case of mental retardation, and also in other cases, it is clear that many problems of children must be viewed from perspectives beyond child development. It is not axiomatic that one helps the child retardate by services directed at him or his family. Instead, this problem and others should be attacked through attempts to change the social game, or the interface between the social frame and the individual, as well as through attempts to "fix" the individual.

GOALS AND STANDARDS OF PROGRAMS

Education and Child Development Programs

The shortcomings discussed in the section just preceding qualify our ability to set forth positive goals and evaluative standards for programs for children. If we knew the critical factors in early development, and if we knew the connections between early childhood experiences and adult outcomes, we could use that knowledge to specify specific targets of intervention and specific criteria by which intervention might be judged. Our formal, codified knowledge is not adequate for these tasks. We mount our programs on behalf of children using ordinary human judgment and intuition. We take guidance from data when there is such guidance. We get along without formal data for that large number of questions for which formal data do not provide answers.

Although it has not been well recognized, a state of affairs very much akin must hold in the evaluation of programs. Over the past decade, there has been a strong trend towards project and program evaluation using objective scientific techniques. However, no evaluation study can have a credibility that exceeds the credibility of the indices and measurements available for it. When we evaluate, we must inevitably make some scientific judgment of the status of a child, his family, or his circumstances. There is a "state of the art" in psychological and sociological assessment. No evaluation can exceed in validity or credibility that offered by this "state of the art".

Over the last decade or so, the time over which numbers of formal evaluation studies have been mounted, evaluation studies have used existing testing or observational techniques or relatively straightforward elaborations of them. Serious problems exist in providing measurements and indices to gauge the extent to which programs are accomplishing their generally understood purposes. The problems are these:

- Generally, the available psychological tests seem most adequate and trustworthy when measuring the traditional cognitive issues of IQ and school achievement. Tests to measure children's motivation, attitudes, or personality characteristics (usually called "noncognitive measures" or "social and affective measures") are of uncertain validity.
- Furthermore, it is difficult to interpret the meaning as well as the short and long term importance of changes obtained on such indices.

- There are important limitations to even the most widely accepted of our measuring instruments, the IQ and achievement tests. They give little useful detail about the programs measured by the tests. Different tests are only grossly interchangeable with one another. Selection of any particular tests involves the acceptance of often-unknown biases favoring some kinds of program activities over others. Generally speaking, existing tests favor programs that directly or indirectly teach the test.
- Existing tests provide an estimate of individual characteristics. If the issue being addressed by a program is an individual or psychological problem, then testing might find positive benefits. But underlying most public programs for children are purposes that are partly psychological, partly sociological. Testing to date is weak in establishing social or distributional effects.

Existing instruments are, relatively, most adequate for assessing effects on children of early school experiences; next most adequate in assessing preschool effects; and least well developed for the assessment of day care effects in the 0 - 3 age range.

Although there is much interest in noncognitive measures, a review of a large number of noncognitive measures shows all presently deficient on basic issues of norming, reliability, and validity. This is of some importance because many project directors of schools and preschools place their faith and their emphasis on goals that are noncognitive.

The most promising approaches to index development right now reflect (1) an emphasis on process rather than product--e.g., the "cognitive style" tests; (2) criterion-referenced rather than norm-referenced assessment; and (3) an emphasis on observation rather than testing. With reference to the emphasis on observation, one present scheme of school classroom observation--the Indicators of Quality instrument--looks particularly interesting. It is built around professional educators' judgments about what makes up a good classroom environment. It is sensitive (as the achievement test often is not) to factors that educators believe influence school quality. However, its predictive power for the child's later efficacy beyond the classroom has not yet been determined.

Many of the limitations of existing tests, particularly limitations on noncognitive testing, reflect limitations of basic theory and conception of the underlying human functions.

It is unlikely that we will be able to arrive at credible program indices of success simply by concentrating on test or index development.

Our current ability to assess the effectiveness of intervention for children's education and development is, at best, limited and argumentative. Program studies can provide useful data -- at times, highly significant data -- if they are carefully and prudently interpreted with an eye to the meaningfulness of the indices they employ. But their utility is uneven. There has been an argument that program management will be able to make go/no-go decisions through scientific program evaluations. It seems most likely that for some time to come we will have to evaluate the programs as we now must mount them. As mentioned before, we will use much ordinary human judgment and intuition; we will take guidance from data when there is such guidance; and we will get along without formal data for that large number of questions for which formal data do not provide an answer.

Family Intervention Programs

Our ability to measure the effects of family intervention programs is even more limited than our ability to create direct indices of child development. Program goals in family intervention involve either broad attempts to reduce family stress through family therapy or social referral, or attempts to educate and train parents in specific areas of child development--for example, with respect to the nutritional needs of their children or the danger of plumbism. Four types of evaluation have been used generally to assess the effect of family intervention programs: demographic measures, direct observations, rating schedules, and parent attitude questionnaires.

Demographic measures are used to gauge changes in employment, indebtedness, health status, or use of community resources like family planning services. Although easy to gather from census and labor statistics, they are often unreliable. Direct observations of behavioral changes in children or parents are common in evaluating behavior modification intervention. Their weaknesses are that the change in behavior may be superficial or not generalizable to other situations and they are expensive to construct and implement. Rating schedules combine demographic data and interviews with family members; their function is primarily to diagnose the difficulties the family is having. Parent attitude questionnaires are of dubious validity, in large part because the reported change in attitude is not necessarily reflected as a change in behavior.

More adequate evaluation of family intervention programs will depend in part on better theories of family functioning and partly on a closer match between program goals and the type of evaluation used.

Health

There is clear evidence that significant health risks to children and particularly to poor children persist despite the general improvements in American health over the last century. Some of these risks clearly satisfy the criterion of a "critical period" for intervention in early childhood. That is, the problems can only be solved by intervention during pregnancy or early in childhood. The problems, if not corrected, lead to significantly reduced life chances for the child; even available, compensatory "cures" are not as effective as prevention of these conditions.

Detailed differences in incidence of such health problems among the poor and non-poor are not known. However, certain known health differences stand as indices for the constellation of health problems, and for the adequacy of the delivery of health services to the child. These indices demonstrate the higher health risks to the poor child in the following ways:

- Infant mortality rates differ according to ethnicity, socioeconomic status, and parents' education.
- Poor maternal factors, associated with poverty, are known to be associated with risks to the child. These include the mother's age, the spacing of her children, her overall health (present and past), and her proneness to prenatal complications (prematurity, toxemia, etc.).
- Poverty is associated with reproductive complications resulting from the above or from other factors. Some of the effects appear to be intergenerational in nature. There is a white/non-white differential which is not entirely accounted for by present socioeconomic differences.
- Poverty is associated with significant greater health problems during the early years: infectious diseases, malnutrition, and by-products of living conditions such as lead poisoning.

A discussion of the impact of present health systems on these problems reaches a fourfold conclusion.

First, the federal government does not invest in children in proportion to their numbers. The basic reason for this difference

is that national policy has accepted provision of a minimum level of health services as a right for the aged. Such a right does not exist for children.

Second, the free enterprise, private market nature of much of the health care delivery system is leading to specialized corps of physicians (at the expense of primary care physicians) and an emphasis on acute inpatient care in a fragmented manner. These trends particularly affect children (especially those whose families are too poor to buy protection or coordination), who need primary, preventive, ambulatory care.

Third, some of the special health needs of children--early diagnosis and treatment of chronic disease, congenital problems and handicaps, environmental dangers (accidents, lead paint poisoning), and malnutrition or hunger-- have not been priorities in medical research and delivery.

Fourth, the potential impact of appropriate comprehensive health care of high quality on the child's later health status and utilization behavior has not been fully projected.

The quality of program analyses is greatly influenced by the quality of the underlying evaluative studies. Given the state of the art of health care evaluation, it is not possible to give a prescriptive list of goals and standards for children's health programs. It seems reasonably clear that all evaluations of children's health programs undertaken to date have been tentative, exploratory, and inconclusive.

However, the recent literature has been projecting models of evaluation which seem more adequate than previous models. It seems reasonable that much better evaluations could be done, at least in the area of child health programs, using only existing data techniques and methodological resources, combined with a more comprehensive approach to evaluation.

EVALUATIONS OF EARLY CHILDHOOD INTERVENTION PROGRAMS

Reviews were undertaken of the program and project evaluation literatures for the five major kinds of intervention activities on behalf of disadvantaged children, activities in: (1) early education, grades K-3; (2) preschool; (3) early day care; (4) family intervention; and (5) health care. The studies were reviewed in an attempt to determine the effectiveness of such intervention activities for promoting the development of disadvantaged children. Repeated consideration was given to the possibility of further reviews to determine the comparative efficacy of housing and income programs for their benefit to child development. In the case of housing, a reasonable compilation of literature connecting housing factors with child development was obtained. But the literature seemed too sparse and inconclusive for reasonable analysis. No literature permitting a reasonable consideration of the influence of income programs was obtained. Consequently, the analysis followed here omits consideration of the indirect influences of housing and income programs for the benefit of disadvantaged children, although many now argue that these kinds of programs may be of great potential significance.

Early Elementary Education Projects

The primary aim of compensatory education projects has been to raise the academic achievement of elementary school children, with the ultimate aim of facilitating equal opportunity for all social classes and ethnic groups.

Reports of individual educational projects and major surveys of the effects of compensatory education were reviewed to evaluate the effectiveness of compensatory projects in early elementary school (Grades 1 - 3). There are several qualifications concerning the conclusions reached which are associated with our reliance on published information and with the limitations of the existing data. (1) Project descriptions, fundamental to our project categorizations and to our ability to related project characteristics to outcomes, were often vague and general. (2) Evaluation measures were primarily limited to the cognitive realm, to IQ and achievement tests. (3) Statistically significant gains observed were not always of certain educational significance. (4) Most evaluations have measured the effects of projects over one year only. At times this has led to judging projects as successful when, over the course of several years, they would not be so judged. Or it may not accurately indicate the possibility of projects that involve major organizational changes (which might depress achievement initially). (5) Very few projects have followed children for longer than one year or beyond the third grade.

A taxonomy of three dimensions was developed to enable an orderly consideration of the approaches to and effects of compensatory education. The three dimensions and their subcategories are: I--Classroom process (amplification of traditional classroom services, reorganization of classroom process); II--Goal orientation (academic achievement, cognitive enrichment, adjustment); III--Organizational changes (parent mediation, performance contracting, busing, and vouchers).

Classroom process. Few projects are successful which merely amplify existing or traditional services. Since most Title I projects fall into this category, the small number of successes relative to the large number of projects is disheartening. Those projects which attempt to reorganize classroom process show greater success. Specifically, children participating in projects employing new instructional strategies in academic (i.e., reading, arithmetic) areas generally showed educationally significant gains; those which aimed at cognitive enrichment rather than academic goals had mixed results. Computer-assisted instruction data at the elementary level are limited, but two projects (one in reading, one in math) show promising results. Instructional television as it has been used so far seems to be as effective as traditional instruction, but no more effective. "The Electric Company" evaluations are still pending.

Goal orientation. Except for projects with academic goal orientation, there are few data. Academically-oriented projects, usually accompanied by some reorganization of classroom process, seem to be effective in increasing performance on standardized achievement tests.

Organizational change. Busing studies have been poorly conducted to date. Overall they show no consistent effects on the achievement measures of the bused children. However, busing to achieve desegregation is motivated by complex rationales beyond improved achievement. Busing for the purposes of political socialization, assimilation, and equity cannot be illuminated by the results of IQ or achievement tests.

Educational performance contracts have not yet been fully evaluated. Two major studies (by Rand and Battelle) have reported no overall increase in the academic performance of students even through the projects reorganized classroom process and were academically oriented. The data, however, cover only one year of operation and may not provide an accurate assessment of the possible effects of performance contracting.

In parent-mediated projects, the effects of parent involvement are difficult to separate from the effects of other aspects of the projects. In general, successful projects tend to be projects with parental involvement. Parent training projects, in which parents are taught specific skills for teaching their own children, appear to be more consistently related to changing parental attitudes than projects where parents are simply involved in school activities.

Title I and Follow Through. Findings from large-scale evaluations of Title I offer little evidence of a positive overall impact on eligible and participating children. However, at the state and local level a small proportion of projects has yielded positive benefits. At least part of the uncertain results of Title I could perhaps be attributed to the lack of adequate implementation and enforcement of guidelines.

Only the first evaluation of the effects of Follow Through models has been released. Because differences between experimental and control groups are small and because of problems in the analyses, conclusions regarding the effectiveness of Follow Through must await future evaluations.

Recent suggestions to focus on compensatory summer projects have been based on findings of higher gains on achievement tests for high SES children than for low income children during the summer months. While summer projects are a possible compensatory strategy, they are likely to be no more successful than regular school-year compensatory instruction unless they use different techniques or curricula.

Components of successful projects. Simply providing extra resources seems to have had no positive effect on student achievement; the important factor seems to be the manner in which the resources are used. The characteristics of compensatory education projects in the early primary grades which are common to those projects which produce significant achievement gains are: (1) clearly stated academic objectives; (2) small group or individualized instruction; (3) parent involvement; (4) teacher training in the methods of the project, together with careful planning; (5) directly relevant and intensive instruction; and possibly (6) high expectations and a positive atmosphere. Although a certain level of resources is required to maintain educational projects with these characteristics, that level of resources alone does not guarantee success.

Preschool Projects

Discussions of federally-supported projects for preschool-aged children have focused primarily on whether preschool projects (mainly center-based preschool projects and especially Head Start) produce significant and lasting gains on IQ and school achievement tests. Evaluators have been forced to rely on these cognitive measures because they are the most valid and reliable tests available. Nevertheless, it must be remembered that such limited assessment of effects does injustice to the comprehensive and multi-focused aims originally delineated for Head Start.

In this review preschool projects were categorized on two dimensions: goal orientation and degree of structure. Three different goal orientations--pre-academic, cognitive enrichment, and socio-emotional--were considered. "Degree of structure" refers to the amount of external sequencing and organization of the children's activities and to the predictability, preplanning or prescheduling of either the child's behavior, the teacher's behavior, or both.

Preschool projects were selected for review using several criteria, with the first being the most important: (1) short and/or long-term statistically significant effects on commonly-used measures of outcome, (2) replication, (3) being exemplary of a unique approach, or (4) comprehensiveness in age range of children or services. Individual project reports and other major surveys of the effects of preschool projects were used. The focus of our evaluation is on the effects of the preschool experience on the child. Few other data exist, e.g., data having to do with effects on family or community.

Effect of preschool projects. There is an immediate increase in IQ scores for children in most preschool projects. This increase may reflect genuine intellectual progress or it may reflect increased familiarity with the situation, greater self-confidence, or an increased motivation to attempt to problem-solve in a test-taking context. IQ gains vary widely, with some projects showing much larger gains than others. The effects of most preschool projects on IQ scores do not persist beyond the second or third grade.

Children in preschools which focus on specific academic skills show an immediate improvement in performance on achievement tests. In some cases the achievement gains persist longer than the IQ increases, but typically they decline in a manner parallel to that of IQ scores. The pattern of improvement in specific content areas generally reflects the pattern of concentration within the project. The amount of improvement varies with the explicitness of objectives, the soundness of instructional methods, the time invested in attaining the objectives, and the similarity between the instruction and the performance required by the tests.

Scattered results have suggested the possibility of long-term benefits of preschools, including more regular subsequent elementary school attendance and a higher subsequent likelihood of being placed in regular rather than "special education" and low-ability tracks.

Data on non-cognitive effects of preschools are extremely limited and are typically based on instruments of unassessed reliability and validity. Some data do suggest an increase in desirable social behaviors.

Characteristics of successful preschool projects. Smaller, well designed experimental projects generally seem to produce larger gains than large-scale operations. The most effective projects (in terms of the measurable goals of preschools on child performance) are the most structured. Included in this meaning of structure are operational statements of objectives, consistent implementation of the strategies most useful in attaining the objectives, and perhaps as well, detailed staff planning for daily operation, adequate supervision, and commitment.

Although there has been an argument that the success of preschool projects would be increased if the age of intervention were lowered, there is currently little concrete support for this belief.

Some educators and researchers argue that preschools can be expected to produce lasting effects only if there is continuity of later educational programming, i.e., if the educational intervention is continuous. Therefore support should be provided for the development of articulated programs for children of all ages. However, the question is then raised; if preschool is not sufficient without improved primary education, is it necessary with improved primary education?

Day Care Projects

The literature on preschool intervention, reviewed just above, provides our only present basis for an estimation of the effects of developmental day care programs carried on away from the child's home for three to six year olds. Our review concerned with day care per se was limited to an examination of day care programs on the zero to three year old population. We were concerned with effects on child development. It is in the 0-3 age range that day care enters into the possibility of new kinds of child stimulation. It is in this age range where public concern centers on the possibility of stimulating cognitive development on the one hand, versus possible negative effects of infection and separation from the mother on the other.

Full day programs for which there are evaluation data were categorized by intended outcome as: custodial programs (those which seek only to maintain the well being of the child); enrichment programs (those which add a second goal, stimulation of socio-emotional growth, and perhaps some exercises in cognitive development and some social services to the goal of the first category); and programs in day care settings designed to maximize a particular aspect of development (usually intensive cognitive stimulation programs, which might also include medical and social services). The programs were examined for effects on physical health, social and emotional development, and cognitive development. Data were available primarily for the last category.

The most reasonable conclusion about existing data for early day care would seem to be that the data are limited, preliminary, and inconclusive. Although there has been a significant amount of day care in this country and in other countries, the day care has been largely envisaged in terms of service to the family and there appears to have been little consideration or analysis of its effects on child development. Most of the data examined were recent and preliminary. No reports of measurable harm were found and only a few highly specialized and costly models were reported to have produced measurable benefits.

It appears that day care programs implemented within the limits of the federal and state regulations appear to be neutral in their effect on human development insofar as their effects can be evaluated by existing techniques.

Family Intervention Projects

Family intervention projects either supplement or replace child development programs in day care, preschool, elementary school or health. Goals include enhancing the physical care, cognitive and social development, and emotional sustenance of children.

Four kinds of family intervention were examined in order to assess their known benefits: parent education, parent training, family casework and parent therapy.

Parent education projects focus on imparting knowledge (in order to improve the physical, social and economic life of the family and hence the child), most commonly via lectures, discussion groups, printed materials and counseling in schools, churches, hospitals. Parent training projects focus on skill enhancement, especially skills believed to lead to greater cognitive development of infants and young children. Training can take place in the home only or in the home and a center. Usually, in programs with a center component, the

child also attends preschool. Family social casework as discussed here refers only to the social service referral activities of caseworkers. Parent therapy is of two distinct types. Family therapy stresses the socio-emotional sustenance function of parent; it has long been used by psychologists, social workers, counselors and school guidance personnel. Behavior modification therapy for parents, a recent intervention technique, stresses the behavior of the parent in social training of children.

Effects of family intervention projects. In none of the categories are effect or benefit measured without serious problems. However, more clearcut measures of benefit appear to be found in parent training, family casework, and behavior modification therapy projects. We are also somewhat more certain of the validity of the findings of these intervention activities.

- Parent education projects typically produce no useful evaluation data. In the exceptional case where useful data are provided, changes in parent behavior with direct implications for improved child development are not measured. On the basis of an assessment of testimony we find that parent education might be successful for a very limited number of families who are considered to be "disadvantaged" if the projects included day care and baby sitting and if they were more attuned to the needs and learning styles of the particular population of mothers and fathers served. But parent education probably will never involve many fathers, and mothers who have serious survival problems (income, housing, safety) will not be responsive.
- Parent training for cognitive stimulation does produce useful, but often flawed, evaluation data. IQ or achievement score gains are usually statistically significant and of moderate magnitude. These gains decline somewhat with time but remain for at least a year or more. Trained paraprofessionals seem to be as effective as social workers or professional teachers in their parent training role. Variation in curriculum produces similar results. Important side benefits include possible IQ gains for younger siblings, less attenuation of gains, and employment opportunities for low income parents when paraprofessionals are used.
- Family casework, used for social service referral, appears to work best when supplemented by adequate income support and by an adequate level of social services in the community. Most progress is registered in "instrumental" areas of family functioning (child rearing, health care, homemaking practices).

- Parent therapy and counseling in its psychoanalytic form is barren of measured results although rich in professional testimony. It is practiced mainly by white middle class professionals on a white middle class population. Hence it would not necessarily be useful to disadvantaged populations defined by race or low income. It is too early to decide whether behavior modification for parents is a useful strategy, although early results do look promising.

Health Care Programs

To succinctly and systematically characterize current health programs for disadvantaged children proves to be a remarkably difficult task. Virtually none of these programs, as far as we have been able to determine, have been evaluated or monitored in ways pertinent to this study. Several major evaluations are presently underway, but findings have not yet been published.

Given this lack of pre-existing studies, the problem of describing programs and relating current efforts to critical child health needs is large. The interaction is perhaps most easily conceptualized as a matrix, having on one dimension critical child health needs or problems--such as malnutrition, infectious diseases, handicaps, or sensory deficits--and on the other particular programmatic approaches to child health--such as screening, comprehensive health, or nutrition programs. The cells thus defined represent correspondences between programs and problems. Had evaluation data been available in terms of the matrix, it would have been possible to discuss the matrix cell by cell, i.e., the specific patterns by which the federal effort interacts with the health problems of children. In its absence, descriptions of federal programs' effects in terms of child health are largely conjectural and inferential.

Programs with five emphases were analyzed: comprehensive but specifically targeted health programs (e.g., Maternal and Infant Care, Children and Youth), health screening and treatment programs (e.g., Health Start); multiservice programs with a health component (e.g., Head Start; nutrition programs; and family planning programs). In each case examples were given, and the relative effectiveness of programs both within the group, and of the group contrasted with other groups, are discussed.

Looking at existing programs against the patterns of need (i.e., needs requiring federal intervention because of inadequacies of the private sector), we find very spotty coverage of the matrix. Some programs, such as Maternal and Infant Care and family planning,

are directed at both critical health needs and high risk groups in a most appropriate way. Some programs which do not now exist in a coordinated way, such as early diagnosis and treatment of handicaps and chronic conditions, would, from evidence in other sources, have a large impact on the matrix (i.e., intervening between the critical ages one to four). On the other hand, some programs are not organized in such a way as to make evaluation in terms of the matrix possible. Children and Youth, for example, combines early infancy care with some screening with general services for older children, without a programmatic mandate to apportion inputs in these areas in relation to critical health needs. Other programs with potentially large impacts seem to be skewed because their programmatic goals are not entirely consistent with child health needs. Thus, many of the feeding and food distribution programs do not address the issue of feeding very young children. In addition, gaps exist which no programs or non-federal models are operating to fill. One clear need is for models which combine medical, psychological, and educational diagnoses and treatments; the failure of Head Start and Follow Through to become truly integrated and comprehensive does not bode well for other attempts, such as the newer Parent-Child Center projects. Another area which is virtually unexplored on a programmatic level is that of social illnesses in children (child abuse, neglect, accidents).

RECOMMENDATIONS FOR PROGRAM PLANNING

The recommendations offered in this report fall in two groups. For the short term, we recommend several redistributions of emphasis in program direction and management, as indicated in the specific recommendations to follow. After these recommendations have been given, we turn to recommendations for the longer term.

Given the preceding analyses and literature reviews, we recommend two thematic emphases in the near future, emphases on (1) individualizing services, and (2) working with the family rather than around it. These emphases are predominantly suggested by our attempts to analyze and define the multiple and complex nature of disadvantage in childhood. But there is testimony coming from the programs and projects as well that favors such emphases. Our more specific recommendations follow in part from the themes and in part from our reviews of the evidence and testimony. As has been suggested above, the evaluation of programs for children is an iffy business and the interpretation of evaluations unavoidably involves one in multiple acts of judgment. Nevertheless, we have made very effort to align our recommendation with existing data and to discuss data relevant to each recommendation in the main body of the report.

Recommendations for preschool programs (especially Head Start)

I. Diversify Head Start away from its present primary orientation toward center-based preschool education:

--Broaden its focus to include (as many Head Start projects do) other aspects of child development in addition to cognitive and academic.

--Broaden its format to include home-based (in addition to center-based) projects, and parent training projects.

--Broaden the range of indices used to indicate its effectiveness.

--Continue (=emphasize) research on the effects of center-based preschool education.

II. Implement screening programs for all children under the conditions given below. We suggest screening followed by appropriate treatment at birth, 2-3 years, and kindergarten.

--Screening should be conducted by appropriately-trained personnel (not necessarily pediatricians) who work within a health system with comprehensive referral capabilities.

--Screening for and identification of needs should occur only when programs to meet the needs are available.

--Screening priorities should be based on diagnostic sophistication, the risks of late identification, and the availability of appropriate programming.

III. Provide individualized services for preschool children with special needs as early in the child's life as is beneficial. Services should in most cases include parent training.

--Currently we seem best able to provide programming for preschool children with sensory and physical needs. More programs should be implemented for such children.

--Focus on research and development of programming models where our knowledge is inadequate for current implementation (e.g., in the areas of learning disabilities, behavior disorders, or emotional disturbances).

--Implement more (and at an earlier age) bilingual preschool projects for non-English speaking children to prepare them for the regular school system.

--Adjust categorical funding at the programming level to permit integration of children with different special needs in the same preschool projects, while at the same time insuring the continued individuality of the services provided.

--Integrate children with special needs into regular school programs as much as possible, especially using special pre-schools to permit later regular school attendance.

Recommendations for Day Care

In the case of day care, we first consider child development issues, and conclude that:

--Day care meeting some carefully considered standard of basic adequacy will not be detrimental to children's development.

--There is virtually no way at present to know what must be added to such basic care so as to positively affect children's development generally.

--Research is needed to more definitely understand the potential and present effects of day care on children; in its absence, substantial investment in developmental day care appears inadvisable.

After a consideration of various arguments for day care, we recommend:

- I. That a system of day care facilities, including centers, homes, places in private centers, homemaker services, and other facilities as outlined in the Support section be organized to deal with the needs of children from unsupervised, inadequately supervised, crisis, and stress situations as needed.
- II. That some appropriate organization such as outreach services from an appropriate health care network be devised, tested, and instituted to provide screening of young children for potential health and educational problems, and that a full complement of services be made available to deal with those problems as necessary. Where research is necessary to accomplish this, it should be supported.
- III. That a very limited number of densely populated areas be selected for the experimental establishment of a multipurpose day care center offering a broad spectrum of services, with both the centers and detailed analysis of their operation to be supported by the Federal government. This proposal is directed toward obtaining more information on the optimal way to operate a center so as to most effectively and efficiently cope with the usage rates, types of problems, program successes, and a score of other basic facts about even a rough approximation to an average day care center.
- IV. That efforts be made to produce and execute housing designs that will promote informal or otherwise shared child care arrangements. The goal is a modern urban equivalent of the unfenced middle-of-the-block backyard.

There are several more general recommendations which we state in this latter section. First, all day care, whether in homes or centers, should be of such a quality as to offer very little risk of harming the child. Second, we recognize that advances in the state of knowledge about early childhood might substantially change our conclusions, particularly in the area of child development. Analysis has shown the necessity of further knowledge about the children; we urge that its pursuit be encouraged. Third, there might exist local situations in which a day care center is in any terms, including financial, the best solution to a group of problems. In such situations, facilities should be provided.

Recommendations for Education Services

1. Increase Structure and Management in Traditional Curriculum Areas

It is proposed that a strategy of increased structure and management in the primary school classroom be used to increase the attainment of basic skills of reading and arithmetic. Increased classroom structure and management includes: (1) a strong instructional emphasis with clearly stated and measurable goals, which are carefully sequenced; (2) ongoing assessment capability in the classroom; (3) individualized help after assessment; and (4) extensive planning by and careful supervision of the instructional staff.

The federal government could move to encourage increased structure and management by providing incentives primarily in the form of (compensatory education) resources tied to conditions designed to encourage adoption of the recommended strategy; by providing technical assistance and information; and by creating demonstration projects.

II. Diversify Education

To diversify education essentially means to broaden the range of activities emphasized in the classroom which are considered a legitimate part of the child's education and for which the child is rewarded and receives prestige. Those skills that are now considered basic should be taught in the most effective manner possible. But the remainder of the day should be spent in activities which allow each child to use and develop other skills. It appears that there are other human skills that--in terms of vocational relevance, in terms of the structure of human abilities, in terms of educability--fully deserve to be a part of the basic early curriculum.

This recommendation can now only be given in a general way, as a statement of the need for the development of a diversified emphasis. The types of activities and the specific curricula which would be included in a diversified education program would have to be established by a development program. The established distinction between verbal and spatial abilities could well be used as a starting point, given that the distinction has been well documented and that a reasoned argument now exists that schools should acknowledge it. We are here recommending planning followed by program research and development in order to design a more diversified education for children.

Recommendations relating to Family Services

This recommendation proposes a general goal of services which should apply to planning and implementation of all public programs directed at children. The main thrust of the recommendation is toward working with the family, rather than "around" it. We hold that public policy in this area should make families the focus of intervention efforts; should use parents as primary agents of change; and should involve parents in policy and administrative decision-making. A series of specific procedures are presented in the body of the report to support this recommendation.

Health Care Recommendations

Children's health problems are not neatly separable from problems in the organization of services designed to solve them. Consequently, health recommendations cannot be made through a comparatively simple comparison of existing problems with available programs. Generally speaking, in the case of health the right programs exist. The problems arise from utilization, availability, and accessibility. Health care recommendations must reflect a consideration of the health caretaking system.

From a general introductory discussion of the relationship of health to child development and the problems associated with policy decisions, we move to a set of recommendations for child health programs related to the general child development strategies which are being developed in this report.

Recommendations:

- I. Nutritional programs should be redesigned, expanded and given greater priority as a preventive health strategy for children.
- II. Maternal and infant care projects and family planning programs should be expanded to cover more of the high-risk populations; these programs should remain (as they are at present) separate, categorical programs for the immediate future.
- III. Other direct health services efforts for children should be incorporated into one of two more comprehensive settings:

- Comprehensive, family-oriented health delivery systems such as Family Health Centers.
 - Multi-service programs for children, such as Head Start, schools or Parent-Child Centers.
- IV. Broad emphases in a child health strategy should be: (1) diversification of pediatric manpower (along with general expansion of allied and community health personnel); (2) improvement in financial support for child health services; (3) and improvement in general environmental conditions for children.

COMMENTS ON FUTURE ANALYSIS

The data base for a study such as this consists of three kinds of research activity: (1) analysis, (2) problem and program studies, and (3) basic research. How could one facilitate planning in the future?

We suggest that a permanent intramural analysis group be set up within HEW to provide for a continuing synthesis and analysis of information about programs for children. This group would not be concerned with day-to-day planning activities, but it would have periodic responsibilities to provide a comprehensive analysis of programs for children. We suggest that one or two extramural groups be established to assist in the development of analyses, and to provide possible other perspectives about program guidance.

We do not make recommendations about the furtherance of problem and program studies and of basic studies, because there are present trends toward a greater quality and quantity of relevant research activity in these areas. This seems manifest in the development of agency planning functions, and in the move toward interagency coordination created by the Interagency Panel for Early Childhood Research and Development.

There seems to be a division, roughly, between the kinds of problems faced by traditional child welfare legislation and programs, and many of the newer group of problems brought in by the recent poverty initiatives. The former are problems of children in trouble because of personal crisis or risks in the immediate environment; the latter are problems of children who have statistically poor chances of social status later. These are termed "child welfare issues" vs. "social issues".

It is probable that the "social issues" are not uniquely issues of childhood, nor uniquely to be addressed by analysis or programs confined to childhood. Such problems relate to the following questions:

- Do we have more education than we need? Do we have the kind of education we need?
- Are the existing child care professions still fully viable? Can we solve problems by multiplications of them? Are the professional structures the reasonable sources either of problem definition or of advocacy?

- Can social institutions replace the family for the child? Is it possible for us to strengthen the family in its relation to the child?
- Can we provide more openings for productive labor?
Can we provide more distributed dignity of labor?
- Can we create a political socialization?
- Can we find some way to remain competitive as a society without crushing competitiveness within? Where and how can we assert "quality of life" values for families and their children?

The "child welfare issues" now dealt with by programs for children can probably only be solved by efforts to obtain the long-sought-for services that are individualized, relevant, comprehensive, and coordinated. This will probably not be established by new program for comprehensiveness established on a historic bed of old programs. Most likely, it will require changes in the management of existing programs.

Probably, in the long run, effective services could be obtained by extensions of existing health and school service bases. The fundamental innovation needed is an effective provision for local management and accountability.