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CHILD-CARE USAGE PATTERNS AS ESTIMATES OF CHILD-CARE NEED

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ABSTRACT

Child-care utilization studies are often used to estimate the need for future child-care. The author stresses the limitations of the use of past patterns to judge future needs. Specifically the article focuses on the reliability and validity of measures of usage and satisfaction with various child-care modes, errors in study design, lack of conceptual clarity, and problems of the correlation of child-care modes and other variables.

One obvious way to estimate future needs for child care is to look at patterns of child care used previously. How many children are currently enrolled in educational day-care centers? How many youngsters are kept by relatives? Which families have babysitters? These are just a few of the questions asked when predictions must be made about child-care needs.

Much of the advice federal policy makers are getting about the extent of the need for child care in the U.S. is based on what may be called utilization studies. (cf. Hofferth, 1978; Hill, 1978; Shortlidge, 1977) Social scientists using for the most part survey research methods have sought to determine where America's children stay during the day and have based their calculations of future needs on straight-line projections from present-day usage of child-care facilities. In addition, some students of the need for care have used studies of usage patterns to generalize about the nations' preferences for forms of care.

Few would quarrel with the importance of gathering and analyzing information about the forms of child care currently utilized. What is lacking in much of the concern with such patterns is an awareness of the limitations of this particular type of data both as an indication of preference and as a reliable predictor of future needs.

The discussion of some of the projects which have sought to estimate need is undertaken not as a comprehensive critique of the studies, but in order to focus on methodological pitfalls and to indicate why an overreliance on the measures would be unwise. Specifically the focus will be on reliability and validity of measures of usage and satisfaction with child-care modes, errors in study design, lack of conceptual clarity, and
problems with external validity, i.e. the correlation between choice of child care mode and income.

Research on day-care arrangements have given varying estimates of the frequency of use of various modes of care. Part of the reason is the use of different measuring instruments. Results vary from one study to the next depending on the form of the questions asked, the definition of the population, the operationalization of concepts, etc. Thus the question of reliability of measures of day-care usages such as those summarized by Hofferth (1978), Hill (1978) and others is a serious one. Reliability of measuring instruments is often a problem in social science research. What is striking about the lack of reliability in the research on child care is the amount of confidence placed in the measures in the face of the patent unreliability of the instruments.

A second serious concern which arises from a survey of utilization studies is that of validity. If a measure does not in fact measure what it purports to measure, testing hypotheses or making predictions based on such a measure will result at best in useless findings, at worst in misleading conclusions. The major problem with validity in the utilization studies has been the confusion of the measurement of preference for certain types of child care with the measurement of utilization of specific modes of care.

Any attempt to equate choice among existing alternatives with preferences for child-care options fails the first test of face validity. Susan Woolsey (1977) for example blurs the distinction. She points out that data on child-care arrangements made under present conditions are not rigorous. Woolsey, however, is concerned with the politics of child care and, in her desire to counter those who argue for policies she opposes, slips into assuming that mothers prefer whatever care they in fact get. The basic flaw in the assumption that a person wants what he or she chooses is that a person may not be aware of alternative choices or that the desired option may not exist or may exist in such limited supply or at such distance or cost that it cannot be seriously considered. The problem is partly that choices about child care reflect an interface between supply and demand. To treat use patterns as demand is a mistake; to further treat usage as preference is compounding the error.

Some analogies may be helpful. In some developing countries where mortality rates are still relatively high and sickness among children is commonplace, people express a great deal of satisfaction with medical care simply because they have no basis for comparison. Would we say that people in such countries prefer to see their children sick simply because better medical care is out of their reach? Did people prefer walking to transportation by car in the early days of the automobile? If only 5% of the population used cars at first,
might that not have something to do with the cost and availability of the product? (cf, Halachmi, 1979.) Whatever the benefits of walking for our health and whatever the advantages of witch doctors over the AMA, it should be clear that when choices are limited, preferences inferred from them are dubious.

The movement from measures of usage of child-care modes to an assumption of preference for those modes would be easier to make if there were well-designed studies measuring satisfaction of users with the care received. The fact that users were satisfied with a certain form of care would not mean that they preferred that form of care, but the argument that they did would be strengthened. In the child-care study done for Head Start in the Office of Child Development by Unco, Inc., (U.S. Department of Health, Education, and Welfare, 1976) an effort to measure satisfaction with care was made. The results are often reported as evidence that children need no child care which they are not already receiving. Clearly a sizeable logical leap has been made. In view of the wide citation of this result, it is important to note that the possible answers to all of the satisfaction questions were biased toward "satisfaction." The ordinary Likert scale beginning with "very satisfied" will end with "very dissatisfied." The actual list used in the child-care satisfaction section of the survey ranged only from "very satisfied" to "dissatisfied." Such a scale inevitably results in skewing scores away from dissatisfaction. The questioners did not ask about the adequacy of the setting for child care nor about satisfaction with care in general. They questioned the mother rather about her satisfaction with the caregiver. Few mothers in the Unco study reported dissatisfaction with the individual who was helping them to care for their child. In fact, it is possible that mothers were very happy to have found some form of child care and were not about to complain to strangers who were offering no other alternatives. Such possibilities need to be considered.

A final caveat in interpreting the results of the limited satisfaction measures available is the consideration of difficulties a mother may have trusting an interviewer with doubts that she has chosen the best for her child, especially in light of the fact that other options may not have been available. The questions are necessarily sensitive ones and may provoke emotional responses. Concern about the extent to which working mothers might have guilt feelings led researchers in the Head Start study to ask respondents how they felt about leaving their children with others while they worked. Unfortunately, many of the questions were negatively phrased and might induce guilt as well as measure it. Mothers were asked, for example, to react to such statements as "Mothers who work are guilty of child neglect."

Another limitation that may plague studies which measure child-care patterns is an incomplete specification of the population. Among the utilization studies quoted by researchers seeking to measure child-care needs is the 1974-1975 census study (U.S. Bureau of the Census, 1976). A major drawback of this study is its failure to include children under three, a major portion of preschool children. Another problem is that data that is usually presented on child care using census material tends to eliminate figures on the use of preschools, nurseries, and other educational care including Head Start. Mothers were asked only about arrangements for care for children while children were not in school. Material is available elsewhere in census reports on preschool attendance but is not a part of the tables reporting child-care usage. The fact the children getting educational care are not counted as children receiving child care is confusing to the casual reader and has apparently mislead even experienced researchers. The result is a serious undercount of the use of group care and tends to make percentages of alternative forms of care questionable. The seriousness of this peculiar way of splitting up the data on child care is underlined by the fact that nearly half of the children in the age category studied by the census used kindergartens or nursery schools (U.S. Bureau of the Census, 1978).

Thus far we have focused on limitations of utilization studies which arise because of measurement problems or research design. Other pitfalls await the researcher who moves to the stage of analyzing statistical data gathered on usage patterns. The groundwork for difficulties in analysis are usually laid in inadequate data and design, but pointing to specific examples of data analyses will help to emphasize how errors can compound each other. Russell Hill and Greg Duncan employ multivariate analytic techniques to investigate the importance of several variables on choice of child-care mode using 1973 and 1974 data (Duncan and Hill, 1975, 1977). They group the independent variables into three sets: variables reflecting location, those considered tastes, and those concerned with price and income. In a more recent study which refers to the two analyses, Russell Hill points out that "the model is misspecified in the sense that both important variables are omitted and our inferences about how tastes affect choice may be misleading as we cannot observe some of the basic factors which reflect qualitative differences among the modes (Hill, 1978:534)."

Part of the difficulty that Hill and Duncan have with specification of the model and operationalization of the variables seems to arise from a lack of conceptual clarity. Concerns about the quality of a child-care program or distinctions based on the purpose of programs are classified as matters of taste. Thus educational differences between various child-care modes are said to be differences in consumer taste.
Another area of conceptual difficulty is a confusion of supply and demand. Choices of child-care mode may be indication of the supply of certain modes as easily as an indication of a demand for those modes. If babysitters are abundant, schools may be utilized less, or vice versa. Hill is aware of the confusion of supply and demand and points out the problem. What is important and neglected however is the impact of such confusion on the validity of conclusions based on utilizations studies.

The way that errors in research design make interpretation of results extremely problematic is illustrated by one finding about location. When the authors find that Southerners and Westerners are more likely to choose day care centers than people in other regions (Hill, 1978), they are led to face frankly the issue of the effect of supply on decisions about arrangements. Since the supply of centers is greater in the South and the West than elsewhere, the more extensive usage of centers in these regions may simply reflect the difference in supply. Thus, Hill and Duncan cannot say whether the demand differs because of the supply or because Southerners and Westerners have a special affinity for center care or both. Too often the matter is not as clearly posed and the assumption that choice reflects demand alone is unquestioned.

A final important consideration that arises when analyzing data based on utilization studies in the area of child care is the effect of income on choice of child-care modes. While simple logic would dictate that income is one major variable determining choice among options such as care by relatives versus care by a live-in babysitter or care in a private nursery school, logic sometimes gets lost in the complex and often inappropriate analysis of the matter.

The 1974 Gary Income Maintenance Study has been cited as evidence that income is not an important factor in choice of child-care mode. It is argued that when poor people are given access to free or subsidized child care they turn it down. No one argues that the study is an exemplary one. A few facts may help to put the Gary study in perspective and encourage caution in future experiments. The research was based on a small, geographically limited sample. Many of the families in the sample had no children. Forty percent of the eligible families had no preschool children. Nearly half of the families with preschool children were offered only a 35% subsidy, and the number of families who had free access to child care was too small for analysis (Shaw, 1974).

Confusion about the effect of income on child care arrangements is compounded by more sophisticated analyses than the experiment gone awry in Gary. A synthesis of multivariate analyses of modal choice by Cottingham (1978:11) argues that the price of formal modes of child care is not
an important factor in the choice of such modes. The analysts come to this conclusion by a curious arithmetic. They subtract the wife's income in two income families from the total family income and use only what they call net-family income in their analysis of the effect of income on choice. Thus they say that while the wife's income may be positively related to the use of formal child care, family income is not. What they mean is that the husband's income alone is not sufficient to explain choice of child-care modes. The question of why the effect of total family income is not measured is not addressed. Surely it is total family income that is meant when we ask whether income affects a family's choices without specifying any particular source of income.

Russell Hill (1977:47) points out that none of the studies which he reviewed, including those multivariate analyses later studied by Cottingham, "explicitly test for differential modal choice by income class. To do so would require a national sample of families of all income classes and an interactive model which formally tested for the independent and interdependent effects of income and several other socioeconomic factors which affect modal choice (Hill, 1977:46)."

In the absence of such a national sample and interactive model, logic can take us a long way. At a price as low as $7 a day or $35 a week, center care would cost $1820 a year per child if used each week. If we remember this, we can see that it is illogical to suggest that poor families have the same option to choose center care, for instance, as rich families. Part of the confusion may be based on the fact that wealthy families who could afford center care might choose such care or they might choose the sometimes more expensive option of paying a sitter or housekeeper in the home. In the first case they are choosing formal care, but in the second, informal care. A second complicating factor tending to suppress the logical relationship between income and choice might be the present subsidization of care. Since researchers do not study only those low income parents who are not eligible for Head Start and other similar programs, some studies show some poor families using center care. Such evidence seems to show not that income is irrelevant to choice, but rather that it is so relevant that low income parents must receive help in order to be able to choose. It should be clear at least that few of the children of the 2.3 million working women whose husbands had incomes below $7,000 (U.S. Department of Labor, 1977:9) could easily choose center care were their husbands the sole bread winner. Separating the husband's and wife's income may be useful in order to demonstrate the greater sensitivity of child-care mode to the woman's income, but the failure to look at total income makes little sense.
John Kushman (1979, 544) complains that economic analysis of the child care market has been limited. In a careful study of the market in North Carolina, he argues persuasively that any analysis of center care should be enhanced by a separation of child care centers into government, voluntary (non-profit) and proprietary (for-profit) centers. Specification of type of producer may clarify to some extent the matter of the relationship between income and choice.

In sum, if policy makers are to be able to put confidence in figures which social scientists have given them on child care, not only must researchers be careful to present data on child-care usage patterns that are valid and reliable, but the analysis of such data must reflect an awareness of its limitations. Janet Boles (1980:347-48) in "The Politics of Child Care" focuses on the inadequacy of the child-care data base as an important barrier to child-care policy formation. In particular, we must acknowledge that until we have better inventories of the supply of child care, assumptions about the demand for care based on usage patterns will lack credibility. Furthermore, we must be reasonable in our analyses of the effect of income on usage patterns, using quantitative techniques to elaborate effects without losing sight of the problem we are addressing. More caution in making generalizations on the basis of limited data will not insure that any particular policy recommendation will be followed but it should, in the long-run, increase the reliance intelligent planners place on our advice.

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