DOCUMENT RESUME

ED 383 805   UD 030 476

TITLE   Indicators of Children's Well-Being: Conference
                 Papers. Background Papers and Rapporteur's Comments.
                 Volume I. Special Report Series. Special Report
                 Number 60a.
INSTITUTION   Wisconsin Univ., Madison. Inst. for Research on
                 Poverty.
PUB DATE   May 95
NOTE   125p.; For Volumes II and III, see UD 030 477-478.
                 Papers presented at a conference on "Indicators of
                 Children's Well-Being" (Bethesda, MD, November 17-18,
                 1994).
AVAILABLE FROM   Institute for Research on Poverty, 1180 Observatory
                 Drive, Madison, WI 53706 ($5).
PUB TYPE   Collected Works - Conference Proceedings (021) --
                 Reports - Evaluative/Feasibility (142)

EDRS PRICE   MF01/PC05 Plus Postage.
DESCRIPTORS   Childhood Needs; Children; *Child Welfare;
                 Conferences; Costs; *Criteria; *Evaluation Methods;
                 *Measurement Techniques
IDENTIFIERS   *Indicators

ABSTRACT
                 The following background papers and rapporteurs'
comments are presented: (1) "Criteria for Indicators of Child
Well-Being" (Kristin A. Moore); (2) "Children in Dire Straits: How Do
We Know Whether We Are Progressing?" (William Prosser and Matthew
Stagner); (3) "Indicators of Children's Well-Being: A Review of
Current Indicators Based on Data from the Federal Statistical System"
(Brett V. Brown); (4) "Kids Count Reports from the States" (Tom
Kaplan); (5) "Assessing Children's Well-Being: How Many and Which
Indicators, and at What Cost?" (Robert H. Haveman); and (6)
"Rapporteur's Comments" (Sheldon Danziger). Most papers contain
references. (SLD)

University of Wisconsin-Madison

Institute for Research on Poverty

Special Report Series

ED 383 805

VD 080476

IRP SPECIAL REPORT

Indicators of Children's Well-Being:
Conference Papers

Volume I: BACKGROUND PAPERS
AND RAPPORTEURS' COMMENTS

SR #60a   May 1995

ERIC
Full Text Provided by ERIC

Indicators of Children's Well-Being:
Conference Papers

Volume I:
Background Papers and Rapporteurs' Comments

May 1995

Contents

IRP Special Report 60a

Indicators of Children's Well-Being: Conference Papers

Volume I: Background Papers and Rapporteurs' Comments

Criteria for Indicators of Child Well-being

Kristin A. Moore, Ph.D.
Child Trends, Inc.
4301 Connecticut Avenue, N.W.
Washington, DC 20008

CRITERIA FOR INDICATORS OF CHILD WELL-BEING

Introduction

Are the circumstances of children growing worse, or not? Are U.S. famiiies falling apart, or not?

How people answer these questions will vary substantially, depending upon where they live, their economic situation, their age, their personal values, their political party affiliation, and whether their focus is on trends in children's health, education, income, or family size.

Yet, I could ask similar questions about the economy and get relatively consistent answers from different people. The economy, like families, is diverse and complex. Different regions enjoy quite different levels of prosperity, and different industries have quite varied earnings situations and prospects for the future. Yet we have a set of economic indicators that are quite widely accepted as markers of the country's well-being: the rate of inflation, the GNP, the unemployment rate, the Dow Jones average, and the poverty rate, for example. Our common understanding of these indicators guides public policy, influences the directions of private organizations, and affects individual decision-making as well. We take economic indicators seriously, even when real concerns exist about their validity (Ruggles, 1990). Indeed, considerable resources are invested in maintaining and monitoring economic indicators. Information is updated regularly, and trends are reported monthly in some cases.

The status of economic indicators stands in stark contrast to indicators of child well-being where, despite earlier efforts (e.g., Watts and Hernandez, 1982; Select Committee on Children Youth and Families, 1989), we continue to lack not only a clear set of reliable, valid, up-to-date indicators but a consensus regarding what it is desirable to track. What set of measures can be developed that reflect a public consensus and that reliably and fully track the well-being of children and families with children? This task is, of course, the mission of this conference. To serve this mission, we need a concrete goal. Specifically, we need to think through what a system of indicators about children ought to look like.

As an initial attempt at this task, I have developed a series of criteria for child indicators (see Figure One). I haven't tried to rank their importance, and I recognize that it may not be possible to maximize them all, particularly in the short run. They are put forward to provide a common point of departure.

FIGURE ONE

CRITERIA FOR INDICATORS OF CHILD WELL-BEING

1. **Comprehensive Coverage.** Indicators should assess well-being across a broad array of outcomes, behaviors, and processes.

2. **Children of all ages.** Age-appropriate indicators are needed at every age from birth through adolescence and covering the transition into adulthood.

3. **Clear and comprehensible.** Indicators should be easily and readily understood by the public.

4. **Positive outcomes.** Indicators should assess positive as well as negative aspects of well-being.

5. **Depth, Breath and Duration.** Indicators are needed that assess dispersion across given measures of well-being children's duration in a status, and cumulative risk factors experienced by children.

6. **Common interpretation.** Indicators should have the same meaning in varied population sub-groups.

7. **Consistency over time.** Indicators should have the same meaning across time.

8. **Forward-looking.** Indicators should be collected now that anticipate the future and provide baseline data for subsequent trends.

9. **Rigorous methods.** Coverage of the population or event being monitored should be complete or very high, and data collection procedures should be rigorous and consistent over time.

10. **Geographically detailed.** Indicators should be developed not only at the national level, but also at the state and local level.

11. **Cost efficient.** Although investments in data about U.S. children have been insufficient, strategies to expand and improve the data system need to be thoughtful, well-planned, and economically-efficient.

12. **Reflective of social goals.** Some indicators should allow us to track progress in meeting national, state and local goals for child well-being.

13. **Adjusted for demographic trends.** And, finally, to aid with our interpretation of indicators, indicators, or a sub-set of indicators, should be developed that control or adjust for changes in the composition of the population over time which confound our ability to track well-being. Alternatively, indicators should be available for population sub-groups that are sufficiently narrow to permit conclusions within that sub-group.

Criteria for Social Indicators of Child Well-being

The first criterion for a set of child indicators is comprehensiveness.

- **Indicators should assess well-being across a broad array of outcomes, behaviors and processes.**

Indicators from only one domain provide an incomplete and potentially biased perspective on the development and well-being of families and children. For example, while childhood mortality from communicable diseases has declined markedly, sexual activity and substance use pose new risks to adolescents. Similarly, while SAT scores have declined over time, improving only marginally for some sub-groups, conditions of housing have improved substantially for most families. Thus, a strong set of indicators needs to include measures from varied domains, including:

- population composition and geographic distribution; fertility; mortality;
- physical health and safety; access to health care; nutrition;
- mental health; access to treatment or counselling;
- educational attainment and cognitive achievement; school and non-school; cognitive stimulation and learning experiences;
- economic well-being; housing adequacy; assets; receipt of public transfers;
- behavior problems, such as delinquency and substance use; positive behaviors; attitudes; goals;
- family structure; contact with an absent parent (if any) and extended family members; child support; parent-child interaction and time use; children in institutions and foster care;
- work force behavior of parents and children; child care for children; job-related benefits; and
- the child's school and neighborhood environment;

The concepts covered within each domain can and sometimes need to be represented by numerous indicators. In addition, the same domain can be examined with a focus on either assets and strengths or on deficits and problems. In addition, indicators are needed for children of

varied ages. This leads to our second criterion.

- **Age appropriate indicators are needed at every age from birth through adolescence and covering the transition into adulthood.**

Both the measures chosen and the data collection strategies employed need to vary for children of different ages. Infants, children in elementary school, and teenagers differ dramatically, and different indicators are needed to capture this variation. For example, accidents and safety in the home are more relevant for pre-schoolers, while motor vehicle accidents and substance abuse are more relevant for teenagers.

The kinds of data required from younger children must generally be supplied by parents, for example, the recency of medical care, accidents, and behavior problems. However, child assessments have been conducted in the homes of young children by especially trained survey interviewers among children age three and even younger in several instances. Teachers become an excellent source of data once children reach school age. Parents continue to be an important source of information about the family into the teen years, but increasingly it is essential to query youth themselves. The need to interview teens in most obvious for risk-taking behaviors such as substance use, sexual activity, and delinquency. However, even for more neutral topics, such as time spent watching television, the older youth is likely to provide more accurate data than the parent.

It is also important, if child indicators are to be a part of public discussion and policy debate, that they make sense to a lay audience, which represents the third criterion.

- **Indicators should be easily and readily understood by the public.**

We cannot expect policy makers and the general public to spend much time mastering complex and non-intuitive measures of well-being. Ideally, comprehension should be instantaneous. It should be possible for a person with an average education to more or less read a sentence and understand the trend.

Of course, it is not possible to cover every topic with simple and readily accessible measures. Hence, it will often be necessary to have an additional set of relatively more complex measures that can be mastered with some moderate level of effort that is distinct from the set that is broadly disseminated in the media. However, even then, indicators should have face validity. We do not want to divert attention away from the meaning of the trends to explaining and justifying the indicator itself.

It is the case, of course, that many economic indicators lack face validity; but over time people have become used to measures such as "the poverty rate" and GNP and think they understand them. So we should not allow ourselves to be driven to suggesting only the most obvious and simple indicators above all else. We can also work to educate the public, the media and policy makers.

The American press tends to highlight negative trends, and the public tends to show particular concern about negative trends. The focus on bad news and failures may account in part for the public's pessimism and the widespread belief that programs are ineffective. Therefore:

- **Indicators should assess both positive and negative aspects of well-being.**

The government itself, because it is organized to identify needs and to address and solve problems, tends to collect data on problems, such as crime, disease and death. So we hear about

trends in drug use, violence, and sexual activity; but we rarely hear about the commitment of

youth to recycling, about the work youth do around the house or outside, about close parent-child

relationships, or the time youth spend volunteering. We don't even hear much about neutral

items, such as whether and how much allowance kids receive. Rarely, though, do parents

content themselves with only the aspiration that their child not do drugs or just avoid being

imprisoned. Most parents have positive aspirations that their child will be useful, well-adjusted

and happy.

To provide a more balanced perspective, new measures need to be developed and new

data need to be collected. Possible constructs include community involvement, volunteering,

religious practice and activities, exercise and sports, activities in school clubs, reading and

cultural participation, family activities, and work done in the home.

The lives of children are complex and multifaced. Our indicators should reflect the

complexities of children's lives. We know that long-term poverty is more problematic than

short-term spells of poverty. We know that cumulative risks undermine children's development

more than a single risk. And we know that average values do not reflect the diversity

experienced by children from varied backgrounds. Therefore, our fifth criterion is:

- **Indicators are needed that assess dispersion across given measures of well-being, the duration that children spend in a given status, and which assess cumulative risk factors experienced by children.**

Measures of duration can be developed to assess how long children live in varied

statuses, e.g., how long they have lived in poverty, the years children spend in a single parent

family, the months or years that children have a chronic condition, or the time children live with

both biological parents. For this task, longitudinal data are generally required. It is possible to

develop longitudinal indicators from retrospective data, but the quality of the data diminishes as the interval lengthens. In fact, annual or biennial data produce higher quality data than that based on data collected every five or six years (Moore, and Glei, 1993).

Several studies have demonstrated that children experiencing more than one risk factor face very elevated probabilities of poor outcomes (Sameroff, Seifer, Barocas, Zax and Greenspan, 1987; Moore, Nord and Peterson, 1989). However, few indicators assessing the proportion of children facing multiple risks are currently available. The data required to estimate multiple risks can come from demographic variables, such as income, parent education, and family structure; but they might also be based on measures of family processes, such as monitoring of the child's activities, parent/child joint activities, and parent involvement in school events. A very strong measure of risk could be developed on the basis of duration in multiple risk statuses, for example, the number of years a child lived in a single parent family in poverty with four or more siblings.

Having developed these (and other) complex indicators of child well-being and risk, it is useful to go beyond just universally reporting the proportion at the bottom or the average status of children. It is valuable to emphasize heterogeneity, to illustrate the varied experiences that contemporary children have living in advantageous or disadvantaged circumstances. It is as helpful to know, for example, trends in the proportion of children in environments with no or only one major risk factor, as it is to know trends in the proportions of children growing up encumbered by multiple risks.

Whether a particular indicator measures well-being over the short-term or the long-term, whether it assesses single or multiple risks, the meaning of the indicator should be clear to all. This is the sixth criterion.

● **Indicators should have the same meaning in varied societal groups.**

Infant mortality is a tragedy that can be measured and tracked with considerable and comparable accuracy across racial, educational, and income groups. Whether the same can be said for other topics such as attitudes about gender roles, discipline patterns, aspirations, and religiosity is an empirical question.

Little methodological research has been conducted to examine whether these kinds of indicators hold the same meaning across different groups. This is unfortunate because these are areas where American society seems to be undergoing substantial change, and these changes may have important implications for family life and children's development. In the short run, reliance on behavioral indicators represents the most cautious approach. For example, rather than assessing religious belief, a nebulous concept, it may be necessary to be more tangible and assess actual attendance at religious observances or services. Measures of behavior in general will be less susceptible to differential meaning across societal groups than measures of feelings and attitudes. However, methodological research is needed to develop solid measures of attitudes, values, and goals, as well as behaviors.

The seventh criterion is particularly important if our goal is to develop a set of indicators that can be used into the next century.

● **Indicators should have the same meaning over time.**

Where social indicators are concerned, it is a real challenge to develop indicators that hold their meaning across the decades. Such a fundamental measure as the proportion married, for example, has changed as formal marriage has been postponed but often been replaced by cohabitation. This change over time affects not only indicators of marriage and family structure but measures of fertility, such as the non-marital birth rate. For some measures, such as family structure, researchers can go back and re-analyze data to provide a consistent measure over time. In the case of remarriage, for example, household records can be searched to identify cohabiting partners for a measure of family structure. However, similar re-analyses are not possible with vital statistics data.

As social conditions change, it is often tempting to abandon existing measures in favor of new indicators that more accurately describe contemporary society. In many cases, new measures are essential. The cost is that we cannot track trends if we change measures. A compromise in strategy is to collect information that permits tracking of both the original and the new indicator. An example can be provided from work on adolescent sexual activity.

Available indicators do not distinguish between voluntary and non-voluntary initiation of sex. However, research indicates that a substantial proportion of the first sexual experiences of girls are non-voluntary (Moore et al., 1989). Whether first sex is voluntary or coerced has, of course, substantial implications for services and policy, and it seems imperative that surveys collect information that makes a distinction between voluntary and non-voluntary sexual initiation. To change the definition of sexual debut, however, destroys historical continuity and makes it impossible to assess trends in adolescent pregnancy among those at risk of pregnancy. Thus, collecting data that permit analysts to construct both the traditional and new indicators

seems imperative. If it is not feasible to collect such extensive data on a regular basis, it should

be possible to collect the data needed to maintain the historical measure on an intermittent basis.

This discussion leads to the eighth criterion.

- **Indicators should be collected now that anticipate the future and provide baseline data for subsequent trends.**

Society is becoming more technological and international. The availability of complex

technology in the home, such as high-powered personal computers, laser printers, and

educational games, is now a critical component of parenting that may give middle class children

a tremendous lead over low income children. Similarly, travel to foreign countries and mastery

of foreign languages and customs are becoming more common for families and for students in

some school programs. Also, post-secondary education outside of college settings has become

widespread, and such training can have important implications for employment and income.

We all "know" that these kinds of changes are occurring. Unfortunately, over-time data

with rigorous and consistent definitions and methods are not available to document such trends.

We need to think about other changes that are occurring that seem likely to continue and to begin

now to develop measures that can provide a baseline for the future.

The ninth criterion requires little elaboration.

- **Coverage of the population or event being monitored should be complete or very high; data collection procedures should be rigorous and should not vary over time.**

Response rates in American surveys have declined over the years, and this decline poses

an issue for the continuity of some data series. Recently, the Office of Management and Budget

has opposed payment of incentives for respondents, one strategy which might increase response

rates. Consideration of the response rate in a survey should affect whether that survey is viewed as a source of indicator data.

Changes in data collection methods can also affect reporting. For example, reporting of substance use by teens is higher when they are able to enter data directly into a laptop computer. This methodological improvement thus appears to enhance data quality for highly sensitive topics. At the same time, however, changing over to this new method may undermine trend data. It is essential, of course, to improve methods and procedures for collecting data. But we must develop methods for calibrating the new measures with old measures, or intermittently repeat the old measures, if we are to maintain the integrity of a social indicators series.

- **Indicators should be developed not only at the national level, but also at the state and local level.**

In order to assess the effect of policies and services, of changes in services and policies and of social, ecological, and economic variations at the state and local level, indicators are needed that track the status and well-being of families and children at levels of geographic and political aggregation below the national level. In particular, measures are needed at the state level. With education organized at the local level, even state-level data are inadequate. At present, the vital statistics system and the decennial Census provide the primary sources of local area data. As state agencies computerize and upgrade their record-keeping, state child support, welfare, health and education data systems may generate much useful information at the state and sub-state level that can be used to track family and child well-being.

Investments in data regarding children and families have been modest, relative to public and private expenditures on other groups such as the elderly, on current consumption, or on other

social problems such as the savings and loan crisis. Hence it is assumed that some spending increases are appropriate, especially in view of current concerns regarding the well-being of U.S. children. Yet, with a substantial Federal deficit, high taxpayer resistance to new taxes, ways to hold down the cost of obtaining and processing indicators data must be considered thoughtfully.

- **While cost should not be the driving force behind decision-making, planners should consider cost as design decisions are made.**

Costs can be minimized by employing data for the purpose of social indicators that were originally collected for other purposes, such as the AFDC Quality Control Survey, where data are collected primarily to monitor welfare fraud and mistakes. This can also be done by piggybacking a child module onto other surveys being conducted for other purposes, such as the child module now being developed for the Survey of Income and Program Participation, conducted to assess income and employment and the receipt of income supports and services among individuals and families. Similarly, the child health supplements added periodically to the National Health Interview Survey, provide information on children's physical health not elsewhere available. In addition, data collected for analytic purposes, such as the National Longitudinal Survey of Youth, a labor force survey, and the National Educational Longitudinal Survey conducted by the Department of Education, can also be analyzed to provide cross-sectional indicator data.

Indicators should also reflect societal goals and support the efforts of policy makers to assess progress toward meeting national goals, such as school readiness, economic self-sufficiency and comprehensive health care. The twelfth criteria reflects this need.

- **Indicators should help track progress in meeting national goals for child well-being.**

Because many programs and policies are initiated and managed at the state and local level, it is also important to measure and track indicators of child well-being at these levels. Currently in the U.S., sustained attention is focussed on health care and welfare receipt. Efforts to improve indicators of child well-being should inform these policy efforts. Similarly, concern with violence, drug use, scholastic achievement, immunization, and adolescent pregnancy argue for up-to-date information on these topics.

Since indicators cannot be developed for every aspect of children's behavior, choices must be made. Indicators should focus on issues of general or substantial importance to the public, program providers and policy makers. Alternatively, indicators, or at least a subset of indicators, should be weighted by the importance or salience of an item to the public or by the proportion of the public affected by a trend.

Victory over rare congenital diseases represents an important event for the families affected, but as social indicators it is more useful to assess trends in more widespread conditions, such as low birth weight, sexually transmitted diseases, accidents, etc., that affect large numbers of individuals.

Finally, to aid with our interpretation of indicators:

- **New indicators, or a sub-set of indicators, should be developed that control or adjust for changes in the composition of the population over time which confound our ability to track well-being. Alternatively, indicators should be available for population sub-groups that are sufficiently narrow to permit tracking within that sub-group.**

The composition of the population affects our interpretation of trend data. For example, the United States has experienced a substantial influx of Hispanic persons into the country and has simultaneously seen the white teen birth rate rise. Since 90 percent of all Hispanics are

classified as white by the vital statistics system, separating non-Hispanic whites from Hispanics shows that much of the increase in the white teen birth rate is due to increased numbers of Hispanic teens. Only if the data are analyzed by race and ethnicity simultaneously is this subtle but important difference apparent.

Similarly, trends in SAT (Scholastic Aptitude Test) scores have been a source of substantial concern in the United States, as college-bound high school students, with some exceptions, have tended to score lower than students did several decades ago. When the data are analyzed controlling for changes in the composition of the student body taking the SAT, some of this negative trend can be explained. It is important to know that some of the change can be explained by changes in demographic composition, but it is also important to know that not all of the change is explained by changes in composition.

Hence, when trends are evident that are particularly puzzling or troubling, re-analyzing the data within narrow population groups or using multivariate methods can be very helpful in explaining the meaning of these trends.

Summary

In the United States, efforts to develop, tabulate and disseminate social indicators regarding children and families have moved forward erratically. There appears to be a renewed interest at the present time in assessing the circumstances under which children are growing up. Traditional indicators are receiving new attention, and an effort is being made to develop a richer set of indicators. Developing a complete and rigorous set of measures appropriate to the next century is a challenging task; but if you believe, as I do, that the well-being of children is as

crucial to the nation as the well-being of the economy, then it is appropriate to direct the needed

talent, energy, and resources to the task.

References

Moore, K.A. and Glei, D. (1993). Memorandum. Washington, DC: Child Trends, Inc. Unpublished raw data.

Moore, K.A., Nord, C.W., and Peterson, J.L. (1989). Non-voluntary sexual activity among adolescents. Family Planning Perspectives, 21(3), 110-114.

Ruggles (1990). Drawing the line: Alternative poverty measures and their implications for public policy. Washington, DC: The Urban Institute Press.

Sameroff, Seifer, Barocas, Zax and Greenspan, (1987). Intelligence quotient scores of 4-year-old children: Social-environment risk factors. Pediatrics, 79, 343-350.

Select Committee on Children, Youth, and Families (1989). U.S. Children and their families: Current conditions and recent trends. 1989. Washington, DC: Superintendent of Documents, U.S. Government Printing Office, 21-956.

Watts, H.W. and Hernandez, D.J. (1982). Child and family indicators: A report with recommendations. The report of the Advisory Group on Child and Family Indicators of the Advisory and Planning Committee on Social Indicators. Social Science Research Council.

CHILDREN IN DIRE STRAITS:

HOW DO WE KNOW WHETHER WE ARE PROGRESSING?

William Prosser and Matthew Stagner

December 29, 1994

Purpose and Background

In this paper we outline a set of (rebuttable) propositions about how indicators of child well-being might be created by social scientists and used by advocates who play by different rules than social scientists. In particular, we are concerned with indicators for troubled children who find themselves in the social service system because of delinquency, abuse or neglect, or educational failure. We refer to these indicators as "psycho-social" indicators of child well-being.

We have four aims. First, we try to clarify terms and discuss the evolving history of indicators. Second, we look at the multiple uses of indicators. Third, we explore and critique examples of psycho-social indicators now used, noting strengths and weaknesses. Finally, we make recommendations concerning improvement.

Background

The desire to gather information to report the well-being of children and families has a long history. Foundations, advocacy groups, states, and the Federal government are engaged in numerous activities to develop and refine social statistics for a host of reasons. Some or all of these activities use the word "indicators" synonymously with social statistics or as subset of them. The U.S. Department of Health and Human Services, in conjunction with the Institute for Research on Poverty, Child Trends, The Annie E. Casey Foundation, and the National Institute of Child Health and Human Development have organized a set of activities to improve the conceptual foundation of indicators and their reporting. These activities include conceptual work on indicators and planning for improved indicators.

In November, 1994, a conference was held to discuss conceptual work on developing indicators. Authors of conference papers were asked to address (1) the state of indicators, (2) the prospects for improved indicators by the end of the decade, and (3) the resources and methods required to obtain better indicators. The subject areas assigned to the authors--such as health, education, and income security--touched only tangentially on issues associated with children caught up in the "child welfare" and related systems. This system includes children experiencing abuse or neglect, those who exhibit anti-social behaviors, and those who require social services or out-of-home placement. Though the number of children involved in these systems may be small, their conditions represent the antithesis of "well-being."

We acknowledge the many thoughtful explorations of indicators by those who have preceded us, and we are humble about what new we bring to the discussion. We hope that our presentation provides a somewhat new perspective that enhances the debate over the utility of indicators of child well-being and leads to the improvement of these indicators.

What are indicators and why have them?[1]

Definition of terms

We feel comfortable with the following definition of "indicators": "quantitative *descriptions* of social *conditions* that are intended to *inform* public opinion and national policy making" (Duncan, emphasis added).[2]

---

[1] The discussion that follows is intended to relate to indicators in general, not just psycho-social indicators.

[2] The Government Performance Review Act (GPRA) discusses indicators and associates them with several types of data: an *outcome* is an assessment of the results of a program compared to its intended purpose. An *output* is a measure of an activity or effort that can be expressed in quantitative or qualitative terms. An *impact* is the comparison of program effects/consequence/outcomes with estimates of outcomes that would have occurred in absence of the program. We have encountered a great deal of confusion concerning whether GPRA

"Describing" is a more limited vision, perhaps more pragmatic and politically feasible, than measuring or evaluating program effectiveness. To us it also means painting a fair and accurate picture of magnitude, composition, and trends. We believe this is intentionally a limited enterprise, free of advocacy objectives.

"Conditions" also have an important connotation to us. John W. Kingdon in Agendas, Alternatives, and Public Policies makes a useful distinction between "conditions" and "problems." We put up with all kinds of conditions, including bad weather, poverty, and illness. Conditions become public problems only when governments--actively or in reaction to public demand--decide to do something about them: that is, when they become part of the government agenda (Kingdon, 1984).

"Inform" can have several interpretations. We also use a limited version of it here: one more associated with policy analysis than policy advocacy. In our view, informing means making a balanced presentation of the data. Policy analysis considers several variables and perspectives. It presents plausible interpretations. It strives to meet a test of fairness. The policy analyst attempts to be both prosecution and defense; making sure that all relevant perspectives are presented to the court. Policy advocacy, on the other hand, tries to influence the jury of public opinion. It makes the best case for its client; "influence" is substituted for inform.

Indicators, generally, are a selected set of data that are intended to bring insights to various audiences about our country's social problems and achievements. In our opinion, indicators differ from "social statistics." Social Statistics describe, while indicators purposefully inform. The Statistical Abstract is a collection of social statistics. A small subset of these social statistics could be called indicators, but a set of indicators may well contain statistics not found in the Statistical Abstract. They are not measures of programmatic effort or inputs. In addition, they are not measures of programmatic outcome. As we discuss below, indicators cannot determine the impact programs have made on the lives of children, except in the broadest sense of the word "indicator."

Indicators are used by different actors for different purposes and should be judged according to their purpose. While indicators most often are constructed and collected by social scientists or program administrators, they are used by a host of types of people, such as analysts, advocates, government workers, other experts, politicians, the media, and the general public. Their many uses may conflict. Different standards of fairness or effectiveness apply depending on use or purpose. Social scientists have a stake in assuring that these tools are reliably constructed and not misused. Some purveyors of indicators--advocates--hope to spur public action. The roles of the scientist and the advocate may conflict. We apply different standards to indicators as we define them than we would apply to advocacy or to program evaluation--uses others may associate with indicators. We discuss these different standards below.

A brief history of social indicators

Interest in social indicators has waxed and waned over the last half-century. One of the most vigorous periods was the late 1960's and early 1970's during a time of great faith in social science. Social scientists in the social indicator movement hoped to create a social index equivalent to the economic indices such as the GNP. They sought a common metric equivalent to dollars in economic analysis. The current Index of Social Health produced by Miringoff and his colleagues at Fordham University is an example of this vision (Miringoff, 1993).

A review of the early literature illuminates a grandiose vision of indicators and the prospects of social science:

Social Indicators, the tools, are needed to find the pathways through the maze of society's interconnections. They delineate social states, define social problems, and trace social

is part of or substantially different from the general interest in promoting the general use of indicators.

trends, which by social engineering, may hopefully be guided toward social goals, formulated
by social planning (Stuart Rice, cited in Otis Dudley Duncan, 1974).

Though the fervor for social indicators has been muted over the past 25 years, the 1990's find a host of new
applications of indicators. We have some trepidation about discussing these projects, because they do not
comport exactly with our proposed use of indicators. Yet, we feel that understanding the breadth of potential
uses provides guidance to the construction of indicators and the caveats that must accompany any such
enterprise. Below we outline a few of these efforts.

One current use of indicators is to assist planning initiatives, to target resources, to evaluate the success
of programs and initiatives, to hold government leaders and agencies accountable, to inform the public, and to
generate public support. The Government Performance and Reporting Act (GPRA) and Oregon's Benchmarks
initiative are examples of this type of effort. The recent GPRA legislation mandates expanded use of
performance measurement in the federal government. The act tries to promote strategic planning and improved
resource allocation. It also requires agencies to develop outcome measures for most national programs. At the
same time, the Vice President's National Performance Review seeks to "reinvent" government by incorporating
the use of outcome indicators into agency practice, leading agencies to become more efficient and customer-
oriented.

Various states also have mounted efforts to develop measures to gauge people's lives and to set
program and budget priorities. A good example of these is the Oregon Benchmarks initiative, which involves
citizens in setting goals, tracking indicators, and assessing progress. This use of indicators is now imbedded in
agency planning and decision making in Oregon. This is both an indicator project and an exercise in
participatory democracy. The public is an integral part of the process.

Another type of project comes from outside government. For the last several years, the Annie E.
Casey Foundation of Baltimore has sponsored the KIDS COUNT *National Data Book*. The introduction to 1994
Data Book states its purpose:

> KIDS COUNT is a national and state-by-state effort to track the status of children in the
> United States. By providing policy makers and citizens with benchmarks of child well-being,
> KIDS COUNT seeks to enrich local, state, and national discussions concerning ways to secure
> better futures of all children (KIDS COUNT National Data Book, 1994).

The foundation also funds projects in each state that report indicators of child well-being at the county and
community level.

Our assessment of KIDS COUNT activities is that they are a mixture of informing and advocating.
For example, KIDS COUNT presents a number of social statistics, such as the percent of all births that are to
single teens and the infant mortality rate. However, the book also ranks states from best to worst on all of the
indicators. This seems to be advocacy--trying to influence the public debate.

A final example is the Index of Social Health which tracks 16 measures of social progress and annually
reporting results (Miringoff 1993). For the last ten years Miringoff and his associates have gathered data on
these 16 elements and combined them into a single number index--almost like the Dow Jones Industrial
Average. We have serious reservations about this single number index since it requires weighting the various
indicators in relative importance to each other. Such weighting requires value judgements we are unprepared to
make.

The role of indicators in policymaking

We believe that efforts to construct a set of indicators must consider how social science data may
influence government policy making and agenda setting. Advocates try to convince government policymakers
that problems exist, that they have potential solutions, and that resources should be allocated to support these

solutions. Creating indicators and selling their importance is critical to moving an issue from merely a condition to the status of a problem (Kingdon, 1984). The process by which conditions get classified as problems is unpredictable, however. Windows of opportunity for redefinition open for indeterminate reasons and remain open for uncertain periods.

An advocate's selection and interpretation can be subjective and time varying. A condition becomes a problem when some incident, anecdote, or indicator deviates from an ideological (or normative) goal, or when it differs from what seems possible. For example, people may perceive a problem when large differences among demographic groups occur, as with the large differences in infant mortality, out-of-wedlock childbearing, and marriage rates among the races.

The unpredictable nature of the policy making process creates a dilemma for those of us trying to develop a set of indicators. Are indicators timeless statistics, regardless of policy priorities? Should indicators provide an information inventory that sits on a shelf to be used when needed? Or, should they be selected and tailored to the advocacy objective at hand?

Advocacy versus social science

Using indicators for advocacy, in our opinion, often brings conflicts with social science. One point of conflict is the transparency of indicators. In seeking to call attention to a problem, advocates prefer to use indicators that are easily understood by lay-people. Social scientists, in contrast, generally feel uncomfortable with indicators which promise transparency and simplicity. They often want to develop more opaque indicators that control for one or several other factors and that are consistent with the tenants of social science. Such indicators may be more difficult for lay-people to understand.

Another point of contrast occurs when advocates suggest simple connections between programmatic inputs and conditions measured by indicators. Social scientists, in contrast, suspect "evaluations" that do not have appropriate controls or comparison counterfactuals. There may be some indicators that are built from objective data on child well-being and yet serve as advocacy tools to change the priorities of the agenda-setters. However, it is also possible these purposes are inherently incompatible.

To illustrate the potential tensions, let us look at the example mentioned earlier: ranking states, from first to fiftieth, on the basis of child-bearing rates for teenage girls. It seems to us that the primary reason for ranking states based on these rates is to encourage action in the states with the worst rankings--to motivate officials to respond to teenage child-bearing. Transforming rates into state-by-state rankings appears to be done for advocacy rather than social science purposes. It is done to motivate rather than to inform.

While raw rates of births to single teens may be more transparent, social scientists know that these rates are strongly influenced by the economic and social conditions and the racial compositions of the population in the areas being compared. Presenting rates controlled for race-ethnicity or income may be a more balanced, but opaque, approach. The more statistical transformation that an indicator goes through, the more opaque, but less misleading, it may become (Garbarino, 1991).

State rankings may give a false sense of complacency to high ranking states and inordinate blame to low ranking states. A New England state, for example, might look quite high. Further investigation behind the raw numbers, however, might show that the particular state is not doing nearly as well as would be expected given the composition of its citizens. Before policy analysts can determine whether resources should be allocated to the lowest raw-score state or lowest controlled-score state, they must know the answers to several other questions so that they can maximize the return on their resource investment.

Indicators and evaluation

It is hard to fault efforts to hold government officials accountable for their performance. Yet, only in special circumstances can indicators be used to evaluate the impact of public policies. In addition, the more transparent an indicator is, the less likely it is to be directly connected to government action or inaction.

Indicators seldom pass two general evaluation requirements: (1) understanding how program interventions relate to results and (2) having a valid counterfactual. First, evaluating program effectiveness requires at least a rudimentary understanding of the causal linkages among such elements as recipient characteristics, program participation, program activities, and program outcomes. Generally, given the current state of social science, we have a "causal ignorance" of these inter-connections (DHEW, 1973). In complex systems like local child welfare systems or state employment and training programs, simple indicators cannot provide sufficient intelligence about the causal links or counterfactuals.

Second, the lack of a valid comparison presents a serious barrier to the use of indicators to evaluate the success of programs. The essence of the scientific method is the concept of a counterfactual. Evaluations ask: how would the treatment subject (or the program recipient) have responded in the absence of the program intervention? Of course, we can never know that without a doubt. We cannot turn back the clock and see the client's life again without the program intervention. Sometimes, social scientists create clinical trials with randomly selected groups, one receiving the program and the other receiving "standard care." Often, circumstances prevent us from conducting a classical experimental trial, so we use comparison groups or other methods to create counterfactuals. Indicators should have some counterfactual as well. Unless an indicator is constructed with a valid comparison, it cannot be appropriately used to evaluate the success of program policies, in our judgement.

Given our definition of indicators, evaluation results must pass a higher scientific test of appropriateness than indicators. (We discuss in the next section the tests that we believe indicators must pass.) Indicators are the products of statistical reporting systems, surveys, or administrative records. They are not the products of in-depth, multi-variate studies of programs and recipients. As such, indicator trends may prompt studies of programs and policies, but the trends can never alone validate the success or failure of a policy or a program. As a consequence, we see only loose linkages between efforts to develop and use child well-being indicators and efforts to develop outcome-oriented measures of government performance, such as the National Performance Review and GPRA.

A case might be made that indicators may be used to hold government accountable in a general sense-- that "things" are getting better or worse. It is possible to cite examples where the use of an indicator for this purpose makes some sense. For example, the poverty rate may have been a valid measure of the success of the "War on Poverty" in the 1960s. But--like judging the performance of the President on the general state of the economy--such judgements may be erroneous and should be made cautiously. The program (like the President) may have very little influence over the measure (like economic conditions).

While indicators probably cannot prove the success of a new program, they may be able to give warning signals that things are not working as planned. Like economic leading indicators, certain measures of well-being might be able to give warning signs. Such signs should then precipitate in-depth reviews.

Criteria for good indicators

We now turn to a discussion of the appropriateness of indicators used to measure the psycho-social development of children. First, we present *specific* propositions about psycho-social indicators now being used. We believe, however, that some of these propositions can be generalized to apply to other indicators. Second, we present some *general* propositions. We hope that these propositions can guide efforts to develop indicators that tell us how well parents and communities are nurturing children and assuring satisfactory transitions to adulthood. In Appendix A we have compiled of set of standards of reliability, validity, and appropriateness that might apply to indicators generally.

Propositions about Psycho-Social Indicators

In this section, we present some propositions specifically about psycho-social indicators and explore a few indicators now in use, comparing them against our propositions. By psycho-social indicators we mean indicators for troubled children who find themselves in the social service system because of delinquency, abuse or neglect, or educational failure.

The specific propositions discussed here suggest ideals that few indicators can completely satisfy. The propositions overlap one another, and shortcomings in indicators may be bundled together. If an indicator fails one of the propositions, it may also fail others, though for slightly different reasons. Violations of one or more of the propositions imply that the presenter should warn the reader of the potential problems of the indicators. The reader should then consider how the violation may affect interpretation. An indicator that cannot fulfill one or more proposition may still have value, however. We believe it should not be automatically discarded. Rather, authors should note the caveats.

For each proposition, we cite some indicators now used to measure children's psycho-social well-being, and we discuss the pros and cons of these indicators. Table 1 lists the indicators we discuss. This list is meant to be illustrative of psycho-social indicators now used. It is *not* comprehensive, and it is *not* our proposal for a set of indicators.

We draw most of the indicators in Table 1 from KIDS COUNT reports. The source of the indicator is ·listed next to the indicator. We selected examples from KIDS COUNT not to find fault with the project, but because it represents one of the most comprehensive child indicators efforts in existence.

The indicators we discuss do not include measures of direct psycho-social well-being of children through the administration of depression scales or other psychometric efforts. Though we applaud the efforts of those who are using survey techniques to gather such measures for a large number of children, we do not believe these measures yet provide indicators of child well-being for a broad population. If that becomes possible, such indicators may replace some of those we critique below.

Direct measurement

First, an indicator should directly measure a factor in a child's life, originating from someone close to the child and having little mediation from the service system. Measures of child well-being should accurately reflect the true condition of the child, not features of the human service delivery system. Two issues underlie this proposition. One is the *source of the report*: the child, a parent, a teacher, or someone in less frequent contact with the child. A second is *mediation by a service system*.

Source of the report. Some measures rely on a child's self-report of his or her condition. For example, the youth unemployment rate is determined through direct surveys of young people.[3] More often, we rely on an adult proxy to represent the well-being of the child. Sometimes a parent is the proxy respondent; at other times a professional assessing the condition of the child is the child's proxy.

A range of professionals assess child well-being. Teachers assess and report on children's learning ability or educational progress. Police investigate victims' reports of criminal activities of youth. Child welfare professionals investigate and report on abuse and neglect. Physicians assess children's health. Psychologists assess children's emotional well-being and mental capacity. Shelters record information on the runaways they see.

---

[3] In national surveys we seldom interview children. Fear of youths truthfulness and maturity or parental resistance are serious concerns. Child Trends' Survey of Children is a rare exception.

It is possible to think of a continuum of sources for understanding child well-being. At one end, reports come from the child's own perceptions of his or her condition. At the other end, professionals embedded within a service system assess and report on the child's condition.

```
<------------------------------------------------------------------------->
     Child's own      Parent's        Indep. Prof.    Service system
     report           Report          Assessment      Assessment
```
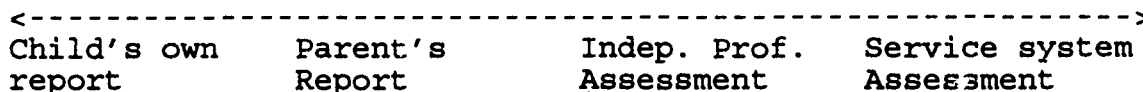
There is no correct place on this continuum. Rather, for different domains of children's lives, different trade-offs exist at each point. Children are obviously closest to their own situation. However, they may not fully understand their condition, or they may not be able to communicate it. On the other side of the continuum, reporters may have professional expertise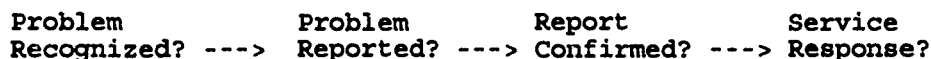 at identifying conditions, but they are removed from the child and more likely to be influenced by the service system context. Furthermore, they may only see a self-selected portion of the problem. For each indicator it is important to consider the tradeoffs at each point on the continuum.

Mediation by the service system. If indicators are to relate to child well-being, they should measure the child's condition rather than whether the service system adequately responds to the child or has sufficient resources to identify and treat a problem. With any proxy measure from reporters within the system, the service system mediates the measure of a child's well-being.

Many indicators of psycho-social well-being do not directly measure the condition of children. Rather, they measure the *response* of the service system to the condition of children. For example, the rate of confirmed child abuse and neglect measures, in part, whether the child welfare system has enough resources to accept and investigate complaints of abuse and neglect. Similarly, the juvenile arrest measures law enforcement effort and technique as well as criminal activity by juveniles.

Mediation by the service system can occur at several points, as indicated in the flow outlined below. Community values may affect whether a problem is recognized by a potential reporter. The service system may determine whether it is then reported, whether it is confirmed, and whether it results in service.

```
     Problem            Problem            Report             Service
     Recognized? --->   Reported? --->     Confirmed? --->    Response?
```

There are at least four ways the service system mediates an indicator. First, time may constrain a reporter's action. Second, the supply of a service may constrain a reporter's action. Third, changing community values outside the service system (*e.g.*, a change in the acceptability of spanking as proper punishment) may influence a reporter's action. Fourth, various factors may affect whether the reporter senses a problem and believes it to be worth the consequences if reported. In sum, how a service system defines the problems it addresses, depends in part upon what the systems desires to do and is able to do.

Time constraints. In many service systems, actions of professionals are severely constrained by funding and time. Assessments of child well-being may be influenced by these constraints. The true condition of children may not be discovered because professionals are too busy to conduct the necessary measurement or because they lack incentives to find the time to look for these problems.

Table 1 includes several examples of indicators that face this difficulty. For example, the rate of special education receipt may not be a true reflection of the rate of children with special needs. In school systems where teachers are severely overburdened, many children who may benefit from these services may not receive them because they are never properly tested. Teachers do not have the time to identify such students.

Another example comes from the juvenile justice arena. Police may have incentives *not* to book children for some offenses. It may be easier, and faster, to release young offenders back to their parents without going through formal proceedings. Therefore, the rate of arrest of children may not reflect the true number of children committing offenses. (This is a variation of the fourth point discussed below.) This distortion is likely to be less severe with more violent offenses, where police may feel they must go through formal arrest proceedings.

Service supply constraints. Many indicators are influenced by the supply of, and the demand for, a service. The rate of service reported may be a poor proxy for the underlying condition of children. A great supply of the service, in the face of low demand, may lead to children receiving the service who do not face the underlying condition. A constrained supply of the service, in the face of high demand, may lead to far fewer children receiving the service than those who face the underlying condition. This is a problem of the *system's* resources, not of the workers' time and personal resources.

The rate of substitute care placement, for example, is an indicator where supply and demand may distort the measure of the underlying condition. Children should be placed into substitute care because workers believe that they will not be safe in their own homes. The rate of substitute care is easy to measure, but it is an indirect proxy for the rate of children who do not have parents who can properly care for them. It is, in essence, a proxy for the rate of severely improper parenting. A household survey of parental behavior--a much more complicated and expensive measure--would possibly provide a very different measure of improper parenting.

In jurisdictions where the supply of foster homes is less than the demand for them, the rate of substitute care will under-report the rate of severely improper parenting. In areas where foster homes are relatively plentiful, the rate of substitute care may over-report the rate of severely improper parenting as child protection workers place children who may not truly need to be placed. This situation is now complicated by the use of "kinship" foster homes, where children are taken from their parents and placed with close relatives. The increased use of "kinship" homes has greatly increased the supply of substitute care and may distort time trends in this indicator.

Changing community values. Professionals within the service system are influenced by changing community standards over time. Differences in an indicator over time, or across jurisdictions, may reflect different community standards or values. This is perhaps best seen in the arena of child abuse and neglect. Over the past three decades, tolerance for certain parental behaviors has declined dramatically. Spanking and other forms of punishment that may have been viewed as standard practice in the 1960s may now qualify as child abuse. In looking at trends over time, or in comparing jurisdictions, difference in community values may distort measures of the underlying conditions of children.

Other indicators may reflect changes in the stigma or connotation of situation or an incident. This may be true, for example, of dropping out of school, teen fertility, and welfare participation rates. It can be argued that a high school diploma does not have the same meaning it had two decades ago. Welfare receipt, though it is often seen as a proxy for dependency, is subject to changing stigmas. These rates may increase or decrease because the stigmas rather than because of changes in child well-being.

Reporters' perceptions of consequences. Reporters may also choose to report a condition based on their perceptions of what will happen when they report. Teachers may not want to call attention to children with problems, because it may reflect poorly on their skills. Potential reporters, such as teachers, may view the child welfare system as anti-family or Kafka-esque. Potential reporters may not report a condition because they believe the harmful consequences--for themselves and for the families--may outweigh any benefit. They may prefer to work directly with the family to overcome the problem rather than involve the family in the child protection system.

Clarity of direction

Second, trends in an indicator should generally represent, unambiguously, whether children's conditions are improving. It should be clear when an indicator moves in a particular direction that it represents an improvement (or deterioration) in children's well-being overall. Likewise, if comparisons are made across jurisdictions at a point in time, a higher (or lower) value should show unambiguously whether children's conditions are relatively better (or worse) in the various jurisdictions. An exception to this general proposition is indicators that provide contextual cues for more direct indicator measures. We may not know whether a change in racial composition or maternal employment rates is better or worse for children, but it may be an important control variable for other more direct measures of well-being.

There are two reasons why an indicator may not have a clear direction. First, a change in direction with one indicator may mask changes in the opposite direction of other closely associated indicators. Second, an indicator may reach a point of diminished returns, where further movement in one direction no longer represents an improvement for children.

Masking opposite trends. A change in an indicator may disguise movement in another factor in children's lives. Without looking at both the indicator and other statistics, what appears to be a clear improvement in children's lives may in fact be a deterioration. Generally, this problem occurs at two connected points in the causal chain, where children can be moved (through varied reported, diagnosis, or treatment) from one category to another. For example, some policy makers and advocates believe that reductions in the substitute care population are desirable. Growth in the rate of placement into substitute care is viewed as a sign of children's worsening conditions. However, without also looking at other indicators--such as the rate of child abuse and neglect--it is difficult to interpret the trend.

Again, examples other fields may be most illuminating. Though most policy makers and advocates believe that reductions in infant mortality are a clear indication of improved health of children, this may not be true. Improved medical technology has made it possible to keep more children alive through their first birthday. But the quality of life of some of those children may be very poor, and they may die soon after their first birthday. So, while the rate of death of children under one year of age may decrease, the morbidity of those children may increase, and the death rate for children over age one may increase. A tracking of all these measures is advisable. A direct measure of expected quality of life also would resolve this masking, but that is neither an easy nor an inexpensive indicator to obtain.

The increasing divorce rate of the past three decades has been cited as a measure of the decline in child well-being. A lower proportion of children now live with both parents at any given time, and a lower proportion of children live with both parents throughout childhood. However, without knowing the rate of children harmed by living in households with high levels of conflict among the parents, it is difficult to say that this trend has made children worse off. Though the recent trend in divorce rates may imply that children are worse off, evidence would be stronger if this indicator were presented with other trends in children's well-being. (This is also a problem of a measure not directly related to children--a proxy variable rather than a child well-being variable.)

Several indicators of children's psycho-social well-being have this problem. For example, improvements in the kindergarten retention rate (that is, fewer children being retained) implies that children are doing better. However, without looking at a number of other indicators (such as whether the children not retained are successful in later school years or score better on tests of achievement), it is difficult to interpret whether a change in the retention rate in fact shows that children are doing better. Fewer children may be retained at that point in their school careers, only to find that they are retained in later years or eventually drop out from the frustration of being behind their peers.

Point of diminishing returns. Some indicators may show improvements in children's lives over certain parts of the scale but then reach a point of diminishing returns, where further movement in that direction leads to little or no improvement in children's well-being. This concept is difficult to prove with the indicators used today, but with some indicators it is possible to conceive of such a point.

For example, there may be a percentage of children in the population who would benefit from alternatives to high school, such as vocational opportunities. It is possible that a decreasing high school dropout rate suggests improvement in children's lives only up to that percentage. After that point, further decreases in the percent of youths dropping out of school reflects little improvement in youths' general condition. The number in school may then contain children who would be better off elsewhere.

This issue suggests the need for a better understanding of the costs and benefits of society's attempts to "move" an indicator. With most indicators, naive users may assume that improvement at any point on the scale has the same cost and benefit. Yet, with many indicators, at some point the costs of improvement may greatly exceed the benefits.

Again, the example of infant mortality may best illustrate the point. Reducing infant mortality may come with some great expense, saving the lives of children who have high health care costs and poor quality of life. This creates a difficult moral issue. If one can create the correct scale to weigh such things (admittedly no easy task), the costs to society may outweigh the lives saved. Another example is the unemployment rate. Some economic theorists believe that pushing employment below some point may have the negative consequence of raising inflation (U.S.DHEW, 1973).

False positives and false negatives

Third, indicators should balance the costs of false positives and false negatives. Many indicators appear to tell us something important *if* we assume that the appropriate population has been captured in the indicator. However, as with statistical hypothesis testing, two types of errors may occur. Children may be assessed as having a condition when their true status is not-having the condition (false positives or Type II error). Or children may be assessed as not-having a condition when, in fact, they do have it (false negatives or Type I error). Errors of either type can lead to misinterpretation of an indicator. Up to this point we have discussed overt Type I and Type II errors, in which the incentives of people lead them to misreport. Here we discuss unknown and unintentional errors.

Table 1 lists several indicators with this problem. For example, the rate of children in substitute care is often viewed as a proxy for children with severely abusive and neglectful parents. The increase in the rate of children in substitute care is generally interpreted as an indicator of a decline in the well-being of children. But, we do not know if we have the "right" children in substitute care. There may be false positives (children in care who do not need to be) and false negatives (children not in care who need to be). Workers in child welfare systems do not know who these children are. If they did, they would correct the mistakes. The mistakes arise partly from training and individual skills of the workers and partly from the unreliability of the measure--the poor "state of the art."

A study by Peter Rossi, John Schuerman, and Stephen Budde (1994) shows how difficult it is to avoid (or even identify) the false positives and false negatives in the child welfare arena. They asked several experts in child welfare to read case studies and indicate whether they believed the child in the case study should be placed into substitute care. They found little agreement among the experts on the sample of cases. The inter-observer reliability was quite low. This study also points to another problem as well: the lack of agreement among professionals about what constitutes the problem. It is difficult for professionals to agree on when child well-being is so threatened that substitute care is a better alternative.

Several other indicators have similar problems, such as juveniles committed to state custody, the percent of children in special education, rate of children retained in kindergarten, and the rate of reported or confirmed abuse and neglect. In each of this cases, false positives and false negatives are likely. Variation in practice and difference in definitions exacerbates the problem of determining whether child well-being is changing over time or determining whether jurisdictions are better or worse than one another. Using any of these indicators to imply something about the well-being of children is problematic.

Clear interpretation

Fourth, the reasons for indicator improvement or deterioration should be interpretable without raising confusion about the trends or issues behind the indicator. There are two issues here. First, one might think that, if possible, indicators should be give clear inferences about an appropriate action to take. We note above that linking indicators to policy is seldom straightforward. Yet, some possible causes and consequences of trends or differences should be clear to the audience in mind.

Second, indicators should not combine two separate aspects of children's lives unless there is a clear rationale. One example of such an indicator from Table 1 is the percent of teens not in school and not in labor force. A decrease in the percentage of young people not in school and not in the labor force may be related to changes in the number of young people pushed out of school, leaving school voluntarily, refusing existing jobs, not being able to find jobs, or all of the above. When this indicator is not broken out or displayed with other indicators--and without a clear understanding of causal relationships within and between the education system and the labor market--it is difficult to make sense of it. Such an indicator can do little more than pique the curiosity of the reader.

General Propositions about Indicators

Having outlined particulars about pycho-social indicators, we move here to outline general propositions, looking at two levels: (1) the set of indicators and (2) the single indicator. At the set level, guiding principles include comprehensiveness, balance, and fairness. With individual measures, we worry about reliability and validity. We also return to our concerns about using indicators to "evaluate" public policies.

A set of indicators

Balanced reporting. Our first concern is balanced reporting. Patton (1986) discusses balanced reporting in the following manner:

> [It] means considering multiple possible interpretations and analyzing various kinds of indicators. Single indicators are seldom adequate in the search for balance. Multiple indicators, multiple analytical approaches, and multiple perspectives are required for balance. Balance positive and negative findings as appropriate. Be clear about definitions. Make comparisons carefully and appropriately.

We believe a set of indicators should relate individual variables to each other and to a larger theoretical model. Our current state of knowledge makes this difficult, but we should strive towards the development of clearer models that link the various domains of children's lives.

Potential for misinterpretation. A second concern is potential for misinterpretation. Social scientists can never prevent indicators from being misused, abused, or manipulated (Rainwater and Yancey, 1967). We can, however, try to minimize unintended or ignorant misuse. We can try to inform the general public and media about what indicators might mean and what they do not. We can strive for an appropriate balance between simple and complex indicators. We can try to keep lay-people and the agenda-setters in mind.

No data can speak for themselves. Therefore, interpretations always should accompany indicators. These interpretations should include possible counter-interpretations or rebuttals. In early stages indicators may be more opaque than transparent to the lay-public, but the media and public education programs may lead to broader awareness and acceptance of difficult concepts.

This leads us to the following propositions about a set of indicators, which borrow from and build upon the list presented by Moore (1994). These six propositions are value judgements on our part, the product of our training as social scientists. They no doubt would not satisfy the needs of advocate in many cases.

First, we would like to see a set of indicators include a comprehensive array of variables that covers:

- the primary domains of children's lives
- during important age-appropriate developmental stages that speak to
- potential areas of national policy and interest and
- have a high chance of anticipating the chaotic, political nature of agenda setting.

Second, to encourage a balanced view of U.S. children and their prospects, we would like to see a set of indicators that includes both positive and negative outcomes. Negative indicators may generate more calls for action--bad news sells more newspapers--but it may focus too much on negative conditions that generate national pessimism, cynicism, and inaction, in our opinion. Furthermore, positive indicators may better capture preventive efforts, which may be missed by negative measures alone (Garbarino, 1991).

Third, a set of indicators should report data that compare geographic areas in a context and form in which readers can reasonably sense the relative risks and outcomes for children in those areas. We agree with Zill (1991) that, if states are to be compared, state rankings should be replaced by calculations of whether states are performing better or worse than expected. (Of course, the statistical model for "leveling the playing field" should be made transparent.) Alternatively, data can be presented in cross-tabular fashion using major variables known to make a difference--such as parents' education, income and race-ethnicity (Zill, 1991)--allowing an informed reader to adjust the rankings himself or herself.

Fourth, a set of indicators should include indicators that are relatively uncorrelated. Each indicator should add information, though some overlap may be necessary to assure balance and confirm relationships. The more the set follows some general theory of causality, the less one needs to worry about these correlations.

Fifth, a set of indicators should present an even-handed and fair picture so that a reader does not reach unintended judgements or conclusions. No set of indicators presents "the truth." There are multiple realities, perspectives, interests, and values. Discussions of indicators should include alternative interpretations.

Sixth, a set of indicators should be timely and periodic. As we have mentioned above, "timely" is difficult to anticipate because of the unpredictable nature of agenda setting. Also, "periodic" is more expensive than "occasionally." We believe, however, that the benefits of timely and frequent data collection are great.

Special conditions in using indicators for evaluation

In our view of indicators as data to inform the public debate, indicators are more like early warning signals--canaries in the mines or swallows in the spring--not designed for evaluation. Since the GPRA, according to our interpretation of the current discussion, intends to design indicators to evaluate programs, we present special conditions that seem to us might apply in such situations.

Indicators could be used to evaluate programs or hold officials accountable when the following conditions hold:

(1) A program goal has been articulated in measurable terms.

(2) An official has accepted responsibility for achievement of that goal or has been designated responsible by executive or legislative direction. Furthermore, she/he has control of most (all?) of various government programs associated with the "treatment."

(3) A program treatment or set of activities can be defined and measured. Some sense of the relationships among client attributes, treatment, and outcomes can be articulated.

(4) An appropriate research design and counterfactual (what would have happened in absence of the program) can be demonstrated.

(5)   A rough cost-benefit (in a broad sense including quantitative and qualitative dimensions) analysis can be calculated.

(6)   An array of external factors that may contribute to the outcome are known and controlled.

We believe this is a reasonable test, but one that indicators as evaluation instruments will seldom pass. Some, if not many, may disagree and believe this is far too conservative a test for indicators to pass. We solicit opinions concerning whether this is a serious issue and, if so, whether such conservative standards are justified.

Conclusions and Recommendations

In conclusion, we believe is it important to continue to improve our measures of the psycho-social well-being of children, applying social science to improve advocacy indicators. Indicators of children's psycho-social well-being can, in some cases, help define policy problems and help redefine the public agenda, but they also can be misused by advocates and misunderstood by policymakers.

Throughout this paper we have critiqued several indicators drawn from service system administrative data. We have not offered these critiques because we believe surveys should be used to create all indicators of psycho-social well-being. Rather, we believe indicators from social service data must be used, should be used, and can be made better. We offer two suggestions for improvement. First, we believe indicators are best when used together in ways that present several sides of the same problem. This is similar to Patton's (1986) recommendation for a multi-disciplinary approach that considers multiple variables, paradigms, and interpretations. Second, we believe we can create better quality assurance mechanisms for indicators drawn from the service systems. Quality assurance checks can measure whether certain types of errors in an indicator are becoming more or less prevalent. This can help us understand, and possibly reduce, both intentional and unintentional errors when we follow this indicator across time and place, thus improving our ability to interpret indicator trends and differences.

Finally, we would like suggest the indicators we see as the best in this field at this time. We suggest the following indicators:

- Juvenile violent crime arrest rate
- Death rate from child abuse and neglect
- Youth unemployment rate
- Rate of child poverty
- Birth rates for single teens

Each of these indicators has its problems. However, we believe that each avoids the most common and most serious flaws for indicators in this field.

The first two display the problems of service system mediation. Police and child protection personnel make mistakes in identifying (or not identifying) children. However, by focusing on the most serious problems--*violent* crimes and *death* from abuse or neglect--we believe the indicators minimize those problems. The chances for Type I and Type II errors are lessened by picking the more severe problems.

The third indicator--the youth unemployment rate--also exhibits numerous problems. However, by relying on surveys of youth and letting them identify their presence in the labor market and their work activity, it overcomes the problems of service system mediation.

The final two indicators are not, strictly speaking, indicators of children with psycho-social situation. However, we believe we must track the social context of children. Poverty rates and rates of births to teenage mothers are clearly related to children's psycho-social problems.

TABLE 1

Examples of Indicators of Children's
Psycho-social Well-being Now in Use

Delinquency and crime

1. Juvenile arrest rate (CT 94) (WI 94)

2. Juvenile violent crime arrest rate (NDB 94; AR 93; AL 93; SD 93; WI 93)

3. Juveniles committed to state custody (GA 93)

4. Juvenile delinquents in secure institutions (and average days of stay) (WI 94)

5. Number of homicides and firearm homicides committed by Adolescents ages 10-19 (CO 93)

6. Juvenile violent crime court referral rates (cases adjudicated per 100,000 ages 10-17 (AL 93)

7. Number of child admissions to adult jail facilities (SD 93)

Work and School

8. Percent of teens not in school and not in labor force (NDB 94; AL 94)

9. Percent graduating from high school on time (NDB 94)

10. Youth unemployment rate

11. Percent of children in special education (TN 92)

12. Rate of child retained in kindergarten (GA 93)

Substance Abuse

13. Drug use by juvenile arrestees (DC 93)

14. Rate of substance use by high school students in the past month (CT 94)

Child Welfare

15. Rate of children in substitute care (CO 93)

16. Rate of children entering substitute care over time (IL 93)

17. Number/rate of families investigated for CA/N (CT 94)

18. Number/rate of "confirmed" reports (by type of CA/N) (AR 93)

19. Death rate from CA/N (CO 93)

APPENDIX A

Scientific Tests for Indicators of Well-Being

Individual indicators should, in our opinion, be put to the following tests:

a. Scientific/technical:

    i. Reliability/accuracy
        --measure what they purport to measure (instrumentation consistent with definition and
        assures consistent inter-observer interpretation),
        --replicable by other observers,
        --comparable across time and areas (*i.e.*, can be aggregated or disaggregated and
        measures do not change across time) and meaningful across demographic sub-groups,
        and
        --low measurement or sampling error.

    ii. Valid
        --face (makes sense to lay-people),
        --construct (relates indicator to theory or major policy),
        --internal (variation can be correctly related to appropriate variables and causes and
        not to spurious sources),
                o Note, this is a very tough criteria. It means that one can "level the playing
                field," that is control for demographic and environmental factors which may
                be driving the indicators, and can link results to program interventions. One
                may want to relax this standard considerably or even say not appropriate for
                indicators, but only for evaluations.
        --external (can extrapolate outside data support to other areas or time periods),
        --predictive (can be related to other more important outcomes, which is particularly
        important for intermediate indicators which are only proximate to the ultimate well-
        being outcome desired),
        --protects against attrition and migration errors, and
        --unit of aggregation, usually areal, is appropriate for the program treatment or policy
        application.

    iii. Feasible
        --is measurable on a timely, periodic basis

    iv. Useful
        --comprehensible and understandable,
        --informs the public debate and policy making,
        --empirical, not value judgement, and
        --can unambiguously be interpreted to tell whethei children are better or worse off.

    v. Appropriate comparisons are possible
        --counterfactual,
        --normative standard/target,
        --time series, and
        --among sub-groups.

    vi. Can separate the child variable from the service system delivery system response, as
    discussed in this report

vii. Minimizes Hawthorn and teaching-to-the-test scenarios. (On the one hand we want to minimize teaching-to-the-test; on the other, once an indicator has become the subject of a national policy standard--such as infant mortality--we want people to change behaviors to adapt to the policy.)

viii. Be able to provide both cross-sectional and dynamic longitudinal perspectives. For example, welfare dependency requires being able to catalog length of time by cohorts of recipients.

REFERENCES

The Annie E. Casey Foundation (1994). "KIDS COUNT Data Book: State Profiles of Child Well-being," Baltimore.

Brandon, Richard N. (1992). "A Conceptual Framework for Measuring Child/Family Well-being," Institute for Public Policy and Management, Seattle.

Child Trends (1993). Researching the Family: A Guide to Survey and Statistical Data on U.S. Families, Washington.

Duncan, Otis Dudley (1969). Social Science Frontiers, Sage Publications, Newbury Park.

_____ (1974). "Developing Social Indicators," Proceedings of the National Academy of Science, Vol. 71, No. 12, pp. 5096-5102, Washington, DC.

Garbarino, James (1991). "Conceptual Issues in the Search for Social Indicators of Child Well-Being," Source Unknown.

Kingdon, John W. (1984). Agendas, Alternatives, and Public Policies, Little, Brown and Company, Boston.

Miringoff, Marc L. (1993). "Index of Social Health: Monitoring the Social Well-being of the Nation," Fordham Institute for Innovation in Social Policy, Fordham Graduate Center, Tarrytown, NY.

Moore, Kris (1994). "Criteria for Indicators of Child Well-being," paper prepared for conference on Indicators of Children's Well-Being, Bethesda, Maryland, November 17-18, 1994.

Oregon Progress Board (1992). "OREGON BENCHMARKS: Standards for Measuring Statewide Progress and Government Performance," Report to the 1993 Legislature.

Patton, Michael Quinn (1986). Utilization-Focused Evaluation, Sage Publications, Newbury Park.

Rainwater, Lee and William L. Yancey (1967). The Moynihan Report and the Politics of Controversy, The M.I.T. Press, Cambridge, Massachusetts.

Rossi, Peter H. and Howard E. Freeman (1989). Evaluation A Systematic Approach, Sage Publications, Newbury Park.

Rossi, Peter; John Schuerman; and Stephen Budde (1994). "Understanding Child Placement Decisions and Those who Make Them," Chapin Hall Center for Children, University of Chicago.

U.S. Department of Health, Education, and Welfare (1973). "A Report on Measurement and the Quality of Life and the Implications for Government Action of The Limits of Growth," Washington, DC.

U.S. Government (1994). "Primer on Performance Measurement," Source unknown, Washington, DC.

Zill, Nicholas (1991). "Improving KIDS COUNT: Review of an Annual Data Book on the Condition of Children in the 50 States of the U.S." Child Trends, Inc., Washington, DC.

Indicators of Children's Well-Being: A Review of Current Indicators Based on Data
From the Federal Statistical System

by

Brett V. Brown, Ph.D.

Child Trends, Inc.
4301 Connecticut Ave. N.W. Suite 100
Washington, D.C. 20008

Prepared for the conference "Indicators of Children's Well-Being", the Cloister,
Bethesda, MD November 17-18, 1994

INTRODUCTION

This paper is intended to familiarize conference participants with the variety of indicators of children's well-being currently in use that are based on federal data. The indicators reviewed were culled from existing government and private publications that feature descriptive measures of children's well-being. As such, they do not exhaust all of the important measures of child well-being that are available from the vast federal statistical system, nor do they tap the range of measures that could be created. Rather, the collection represents a listing of available measures that one or more organizations thought important enough to publish as part of a collection of indicators of child well-being.

In compiling this collection of indicators, I have not used a rigid definition of "indicator." The only hard and fast criteria used is that the data on which the measure is based must be gathered on a regular basis so that trends can be tracked over time. This has left by the wayside many valuable measures of child well-being that appear in one-time surveys sponsored by the federal government. Though there are many desirable characteristics that an indicator should have (see Moore, 1994 for a discussion), a measure must at a minimum be measured at regular intervals if it is to function as a social indicator.

The review has been organized to correspond to the following conference session topics: health; education; economic security; population, family and neighborhood; and social development and problem behaviors. For each of the conference session topics, indicators and their characteristics are listed and summarized in separate tables which appear at the end of the paper.[1] The characteristics covered in the tables include a description of the variable, the age groups for which they are available, their periodicity, the geographic levels at which the indicators can be produced (i.e. national, state, and local), and the data source from which the indicator is constructed.

In the text itself the following items are discussed for each of the five session topic areas: the major data sources from which most of the indicators are constructed; a brief description of the indicators themselves; and a brief discussion of any obvious limitations of the existing set of indicators in each area. Where appropriate, new developments within the federal statistical system that may address one or more of these limitations are also identified.

---

[1] It is recommended that conference participants bring a copy of this paper to the conference so that the tables may be used for reference purposes.

CHILD HEALTH

Sources of Data

Data related to child health are relatively detailed and abundant. There are three federal sources of data that offer periodic measures of child health in the federal statistical system. The Vital Statistics System offers data from birth, death, and disease registries. Most of these data are available on an annual basis down to the county level for the entire United States.

The National Health Interview Survey (NHIS) is a large survey (approximately 47,000 families in 1991) which provides some measures related to child health annually; of particular interest is the special child health supplement offering detailed children's data approximately every six years. Estimates from the NHIS are limited to the national level. The NHIS is currently undergoing a total redesign which will be fielded beginning in 1996.

The third major source of data for indicators of child health comes from Center for Disease Control's Youth Risk Behavior Surveillance System (YRBS). The YRBS is a biennial survey of students in grades 9 through 12. It gathers a great deal of unique data on teen behaviors, practices and attitudes on a range of important topics, especially health-related behaviors. There is a national YRBS survey, and separate surveys taken in 43 states and 18 major U.S. cities. The state and city surveys are run by state and local government entities. At present, about two-thirds of the state and city surveys are based on representative samples of their populations.

These data sources allow for separate reporting of most indicators for narrow age groups, and for the larger race/ethnicity groups (white, black, and Hispanic). In addition, indicators from the Vital Statistics system can be produced for Asian/Pacific Islanders and Native American populations.

Table I lists child health and related indicators that have been derived from federal data sources and which appear in one or more publications of indicators reviewed for this paper. The indicators have been sorted into four categories: mortality, health conditions, health care, and health-related behaviors.

Mortality

Simple mortality rates are often reported for all children under age 18, and for 5-year age groups. In addition, within the first year of life, rates are commonly reported for neonatal (first 28 days following birth) and post-neonatal groups.

Mortality indicators are also commonly reported by major causes of death. Common causes of death reported for infants and young children include SIDS, congenital anomaly, and unintentional injury. For adolescents, rates of "violent death" (a combination of car accident,

homicide, and suicide) are most often reported, though some publications also report mortality by type of violent death. Because most of the mortality indicators are taken from the death registries of the Vital Statistics system, they are available at national, state, and local levels on an annual basis.

Health Conditions

A number of health condition indicators are reported for newborns, due in large part to the abundance of information available from birth certificates.[2] Two composite indicators based on birth certificate data, the healthy birth index and the children's health index, have been reported in recent national Kids Count reports. (See Table I for definitions) Other indicators taken from this data source include low birthweight (< 5.5 lbs.), very low birthweight (< 3.3 lbs), and whether the child was born with a congenital anomaly.

Health conditions commonly reported as indicators for children of all ages include HIV/AIDS, child abuse, measles, children limited by chronic health conditions, and developmental delay. Among adolescents, reported health indicators include rates of venereal disease (syphilis, gonorrhea), whether the youth has seriously contemplated suicide within the last year, and rates of victimization from violent crime.

Health Care

Indicators of children's health care receipt include the presence or absence and type (i.e. public, private) of health insurance coverage, the proportion of children lacking a usual source of care, the number of physician and dental visits within the past year, and rates of late or no prenatal care receipt. Most of these measures are available on an annual or semi-annual basis for all age groups of children. With the exception of prenatal care measures, health care indicators are limited primarily to data at the national level.[3]

Health-Related Behaviors

Indicators of health-related behaviors among adolescents are relatively abundant, and include the proportion of teens who are sexually active, the proportion of sexually active teens using varied methods of contraception, cigarette smoking, problem drinking, use of illegal

---

[2] Birth certificate forms have, with minor exceptions, been standardized across the 50 states and the District of Columbia. Differences in data quality across states do remain, however.

[3] State-level data concerning children's health insurance coverage have been generated by combining five consecutive years of data from the March Current Population Survey (CPS). While this method produces acceptable state estimates (Pollard and Riche, 1994), standard errors can be large for the smallest states. In addition, for purposes of tracking trends over time, truly independent estimates can be made only every five years using this method.

drugs, riding with a drunk driver, and use of a bicycle helmet.[4] With the exception of sexual activity and contraceptive use measures, which are available through the National Survey of Family Growth, these measures of health-related behaviors are available only through the YRBS, which provides information only for teens who are attending school.

Regularly reported indicators of health-related behaviors for children prior to adolescence have been limited to whether the child regularly uses a seat belt. This measure is available approximately every six years through periodic supplements to the National Health Interview Survey.

Major Limitations of Existing Health Indicators

There are a number of obvious limitations to the existing set of indicators of child health. First, most indicators of health care receipt among children are not available below the national level from a federal data source. The exceptions are prenatal care receipt, which is available at the state and local levels, and health insurance coverage rates, for which state estimates can be produced using multiple years of CPS data. Such information at the state and local level is of great importance, particularly for those who wish to design and/or evaluate state-level health care reforms.

Second, indicators of child health-related behaviors appear to be limited primarily to teens attending school. This is not done by choice, but is rather the result of the limitations of available data. Such measures have been included for pre-teens and for teens who are no longer in school on a one time basis in other federal surveys.[5] There is clearly a need for such measures to be collected on a regular basis for children of all ages and statuses.

Third, institutionalized children are under-represented in the current stable of child health indicators. Of the major sources of health indicator data identified above, only the Vital Statistics system regularly collects data on institutionalized children. This is a significant limitation, since children are commonly institutionalized for health-related reasons.

Finally, there is a lack of reliable immunization data for pre-school children. The only regularly reported data currently available on the immunization status of 2 year olds is retrospective data based on parent report taken at the time of school entry. Such data are

---

[4] Indicators related to cigarette smoking, alcohol consumption and substance abuse are listed in Table V, Social Development and Problem Behaviors.

[5] For example, the National Health Interview Survey included the full battery of questions from the Youth Risk Behavior Survey in the NHIS in 1992, providing data on a nationally representative sample of teens regardless of their student status. There are at present no plans to repeat this survey supplement, however. In addition the Adolescent Health Survey, a one-time survey scheduled to be fielded in 1995, will provide rich health data on all adolescents.

widely considered to be inaccurate. The Centers for Disease Control has begun a 50-state survey that will provide detailed immunization data for two year olds for each of the next three years. At present, however, there are no plans to extend the survey beyond this three- year time period.

EDUCATION

Sources of Data

Three federal databases provide data for most of the indicators related to children's education. The National Assessment of Educational Progress (NAEP) is a biennial survey measuring the educational achievement and related behaviors of children in the 4th, 8th and 12 grades. Surveys are produced every other year which are representative of students in public and private schools at the national level and for each of the 41 states that have volunteered to participate in the program. The national assessment has been conducted since 1969, and the state assessments since 1990. Reading and math skills are assessed every two years. Skills in other areas including science, writing, history, and geography are assessed every four to six years.[6]

The National Household Education Survey (NHES) is a nationally representative biennial survey with a rotating set of topical modules that are repeated periodically. These include modules on school readiness, school safety and discipline, early childhood program participation, parental involvement, citizenship and civic participation. The survey began in 1991. To date, only the first two modules have been fielded. The original survey design called for an annual survey with topical modules repeated every three years. Since the switch to the biennial design, it has not been determined how often the modules will be repeated.

The third major source of educational data from which indicators are commonly derived is the School Enrollment Supplement to the Current Population Survey (CPS), fielded annually in October. This nationally representative survey provides data on current and recent enrollment status, highest grade completed, diplomas received, and type of school. Schooling data are gathered on all persons ages three and over in each household. The survey, begun in 1946, represents our best source of long-term trend data in this area.

The Schools and Staffing Survey (SASS) is a survey of schools, teachers, and administrators. It is fielded every three to four years, and provides samples that are representative for the nation and for each state. Each sample school provides aggregate data of the demographic characteristics of their student population in addition to detailed

---

[6]The National Assessment Goals Panel is currently meeting to consider changes in the frequency with which proficiency in all areas covered by the NAEP are assessed.

information on school programs, finances, staff characteristics, and other social characteristics of the school. Its potential as a great source of data for indicators relating to the qualities of children's school environment is only beginning to be explored.

Table II lists indicators of educational well-being that have been derived from federal data sources and which appear in one or more of the publications of indicators reviewed for this paper. The indicators have been divided into four categories: enrollment, achievement/proficiency, education-related behaviors and characteristics, and school characteristics.

Enrollment

Among pre-kindergarten children, enrollment indicators include rates of pre-school enrollment among all such children ages three and over, and rates of Head Start enrollment among the eligible population. In the middle years, the focus changes to children who have repeated a grade, or who are behind grade-for-age. Among teens and post-teen youth, indicators focus on rates of dropout and on-time graduation.

Achievement/Proficiency

Most of the indicators of scholastic achievement come from the NAEP, and are available for children in the 4th, 8th and 12th grades. Children are rated according to their level of accomplishment in each of the subject areas covered, including math, reading, writing, science, history and geography. Reported levels of achievement include below basic, basic, proficient, and advanced understanding. The NAEP reports feature as indicators the proportion of students in each subject area who are proficient or advanced. It is an intentionally stringent standard: in 1992, only 25 percent of all eighth graders taking the math exam scored at or above the proficient level. Separate indicators are reported by sex and for major race/ethnicity groups, including whites, blacks, Hispanics, Asian/Pacific Islanders, and Native Americans.

In addition, each year many college-bound high school students take the Scholastic Aptitude Test (SAT). Scores are available separately for the verbal and math sections of the exam. Average scores are available for national, state, and local areas. Scores are often reported by sex, and for the major race/ethnicity groups.

Education-Related Behaviors and Characteristics

The NHES provides a number of indicators of school readiness among pre-kindergarten and kindergarten children, including the proportion who are read to daily, are regularly told stories in the household, are taken to the library one or more times per month, engage in art or music activities with an adult household member, or who engaged in other learning activities such as a concert, museum visit, zoo, household chores, or a discussion of family history. Among three to seven year-olds, the NHES also determines the proportion who have ever had

47

learning disabilities.

For older children (grades four, eight,and twelve), the NAEP provides data from which a number of positive and negative indicators of education-related behavior have been calculated, including the proportion who average a particular number (one or more, two or more) of hours of homework per night, read ten or more pages per day, watch six or more hours of television per day, or were absent from school three or more days in the previous month. In addition, NAEP provides data for determining the proportion of students in the three age groups who have positive general attitudes towards mathematics and science.

School Characteristics

A commonly reported indicator of children's school environments is the average annual expenditure per student. Though the federal government does collect and publish a great deal of information about the characteristics of schools, little of this information has made its way into publication efforts featuring indicators of child well-being. Recently, however, the Annie E. Casey Foundation's Kids Count project has sponsored the development of an innovative indicator of school environments reflecting the proportion of children attending "troubled schools." These are defined as schools with significant student behavioral, conduct, or staff morale problems as reported by school administrators in the Schools and Staffing Survey. This is a valuable source of data on the school environments experienced by children, one from which additional valuable indicators could potentially be developed.

Major Limitations of Existing Education Indicators

The federal statistical system currently supports a large and comprehensive collection of periodically measured indicators of children's educational well-being. In addition, new topical modules to be fielded periodically as part of the NHES (early childhood program participation, parental involvement, citizenship and civic participation modules) will expand that coverage in new and informative directions.[7]

One significant weakness in the current set of education indicators is the lack of measures on the quality of children's school environments. The Schools and Staffing Survey offers an existing source from which additional indicators of this sort may be constructed. In addition, the NHES early childhood program module may provide important information data regarding the quality of pre-school environments.

---

[7] In addition, data to be collected in the Early Childhood Longitudinal Survey, a one-time special survey sponsored by the Department of Education, will also meet the need for better data on school readiness and achievement among young children.

ECONOMIC SECURITY

Sources of Data

Four federal surveys provide data for most of the indicators related to children's economic security. The Decennial Census provides information on income receipt, employment and housing quality. Though this information is not as detailed as in the other surveys, the Census is unique in providing the capability to produce estimates for small geographic areas (down to the block group) and for relatively small population subgroups (e.g. Native Americans) that are not as well represented in the smaller and more frequently fielded federal surveys.

The Income and Demographic Supplement of the Current Population Survey (CPS), fielded each March, is a large annual cross-sectional survey of the U.S. non-institutionalized population involving approximately 57,000 households. National-level estimates can be produced separately for narrowly defined age groups and major race/ethnicity subgroups with this database. State-level indicators can often be produced by combining three to five consecutive years of data, although such estimates usually cannot be produced for age or race subgroups, and the estimates for smaller states have large standard errors (Pollard and Riche, 1994). A special CPS supplement on child support is fielded in April of every other year, providing detailed data on child support arrangements and receipt.

The Survey of Income and Program Participation (SIPP) is a continuous longitudinal survey. Households are currently interviewed every four months for a total of 30 months. Starting in 1996, the length of time each cohort is followed will increase to 52 months. Income, program participation and employment measures are taken on a month to month basis, and are often more detailed and somewhat more accurate than those taken in the CPS, whose measures refer to the previous year. SIPP's smaller sample size has made it less useful than the CPS for providing indicators for smaller population subgroups. This relative disadvantage will be reduced significantly starting in 1996, when the sample size for each new cohort will be increased to 50,000 households. Special child care, child support, and child well-being topical modules are fielded twice for each cohort.

The American Housing Survey is a biennial survey that monitors the quality and quantity of America's housing stock. In addition to the national survey, there are individual representative surveys of 44 major metropolitan areas. Each metropolitan area is surveyed once every four years. In addition to extensive information on the quality and cost of the physical residence and characteristics of the neighborhood, basic demographic and income data are gathered on the residents of each household. Thus, indicators of children's housing and neighborhood quality can be constructed from this data source.

Table III contains a listing of existing indicators of children's economic well-being that

are currently available through the federal statistical system. They have been sorted into four categories: poverty/income, income support programs, employment, and housing. Except where noted on the table, all measures described are available on an annual basis at the national level. Indicators based on data from the CPS can be produced for states by the five-year averaging method described above, with its attendant limitations. Indicators of economic security below the state level are only available every ten years from the Census. Virtually all of the indicators represented can be produced for age-specific subgroups, as is indicated in Table III.

Poverty/Income

Existing indicators of children poverty include extreme poverty (< 50% of the official poverty line), poverty, and various operationalizations of "near poverty" ranging from 125 percent to 200 percent of the poverty line. Such poverty indicators are virtually always based on the official federal poverty line. Indicators of children's household income are most often expressed as median or mean levels of annual income. Finally, there are a number of common indicators based on the receipt of income from particular sources. Most of these are reflective of participation in federal income support programs, which are described below. Exceptions are the indicators related to receipt of child support, which include the "proportion of eligible families not receiving child support payments" and the "proportion of mother-headed families receiving child support" within the previous year. Data on other nonfederal sources of income (e.g., earnings, investment income) are widely available through the federal statistical system, but have not been developed as indicators of children's economic well-being.

Government Support Programs

Indicators related to government support programs include the proportion of children living in families who have participated in the following programs: AFDC, Food Stamps, subsidized or public housing, energy assistance, and free or reduced price lunches. Typically there are separate indicators for each type of program, though useful composite indicators reflecting participation in multiple programs or any of several programs could certainly be constructed.

Employment

These include both parental employment measures, and measures of employment among older children. Indicators of parental employment include the proportion of children where all residential parents are in the workforce, the proportion of children with no parents working, and the proportion for whom no parents are fully employed (working full time, full year). These indicators reflect concerns about both family economic stability, and the absence of parental/child time due to parental labor force activity. Often such indicators are given separately by the age of the child, with particular attention paid to the experience of younger children (less than age 1, 3, or 6).

Youth employment-related indicators that have been used include a straight unemployment rate among 16-19 year olds, and the proportion who are idle (not in school, not at work or in the military, and not a homemaker). These are often reported separately by gender.

Housing

Indicators of housing quality that have been produced include the proportion of children living in crowded conditions (<1 room per person), living in houses with inadequate plumbing or kitchen facilities, living in relatively expensive housing (with housing costs exceeding 50% of family income), and living in housing with moderate to severe physical problems.

Major Limitations of Existing Indicators of Economic Security

There are two major limitations to existing indicators of children's economic well-being. First, with the exception of some housing data for selected metropolitan areas, measures of children's economic well-being are not available between decennial Censuses below the state level. Even at the state level, indicators can only be produced by combining multiple years of CPS data, and are not available for age or race specific subgroups. This is a major shortcoming of the existing federal statistical system, since such information is often needed for economic and government program planning. In response, the Bureau of the Census has been looking seriously at developing a survey that would collect the information currently collected on the census long form for large samples of the population on a continuous basis. This potential data resource is being called the Continuous Measurement Survey (CMS), and may replace all but a few basic demographic questions on the Decennial Census. High quality estimates of children's economic well-being would be produced annually for states and for metropolitan areas with populations in excess of 250,000. Reliable estimates down to the census tract level would be available every five years. A pilot CMS is scheduled to be fielded this year.

The second major limitation is the lack of longitudinal measures of economic well-being. It has been amply demonstrated that a family's income levels and program use can be very unstable from year to year (Duncan, Brooks-Gunn and Klebanov, 1994). Measures that look at multi-year poverty or long-term income support program use will identify children in families who are experiencing prolonged economic difficulty and/or dependence (Duncan, Brooks-Gunn and Klebanov, 1994). Fortunately, data already exist to construct such indicators. The SIPP survey currently follows respondents for two and one-half years, and will shortly expand to four and one-half years of coverage.[8] Another federally sponsored data set

---

[8] A special SIPP cohort, which began in 1993, will be followed for a total of ten years.

that has not been discussed here, the Panel Study of Income Dynamics, can produce periodic measures on long-term poverty and program use covering even longer periods of time. Finally, even the Current Population Survey is capable of yielding some multi-year poverty and program participation indicators. Due to the nature of the CPS sampling scheme, about 45 percent of the sample households also participate in the survey the following year.

POPULATION, FAMILY, AND NEIGHBORHOOD CHARACTERISTICS

Sources of Data

The indicators included in this section are primarily descriptive, demographic measures. The four primary data sources for these indicators are the Decennial Census, the Current Population Survey Income and Demographic Supplement, the Survey of Income and Program Participation, and birth certificate data from the Vital Statistics system. Each of these data sources has been described above.

Child Characteristics

Indicators of basic child characteristics include the number of children, the percent within each major race/ethnicity group (white, black, Asian/Pacific Islander, Native American, and Hispanic), the percent who changed residences in the previous year,[9] and the percent who are linguistically isolated.[10] Children as a percent of the total population has also been used as an indicator, though its relation to well-being is unclear.

Family and Household Characteristics

Common indicators related to family structure and living arrangements include the proportion of children living in two-parent and single-parent families, with step-parents, and with neither parent, in subfamilies within multi-generation households, and in institutions or group headquarters. There are in addition several family indicators related to birth and family formation including the percent of births to unmarried women, to teens, to unmarried teen women, and the rate of second births to unmarried teen mothers. In addition, a composite indicator called the New Family Index reports the percent of first births to women with less than 12 years of schooling, who are unmarried and under the age of 20.[11] It is an indicator of

---

[9]Frequent residential moves have been associated with subsequent academic and other difficulties (Coleman, 1988).

[10]Linguistic isolation is defined as any child age 5 or over living in a household where no person ages 14 or over speaks English only or very well.

the proportion of new families that are high risk.

Neighborhood Characteristics.

The Decennial Census provides census tract characteristics related to income and poverty, welfare use, employment, family structure, educational attainment, and other population measures. To date, two such indicators have appeared in publications featuring indicators of child well-being. The first is the proportion of children living in high poverty areas (40+ percent). The second is the proportion living in "severely distressed neighborhoods," defined as neighborhoods with values one or more standard deviations beyond the mean level in at least four of the following five characteristics: poverty, female headed families, high school dropouts, males unattached to the labor force, and families receiving public assistance.[12]

Major Limitations of Existing Indicators of Population, Family and Neighborhood

The federal statistical system provides a great deal of data from which a broad array of useful child and family demographic indicators can be constructed, and which can be presented for age and race/ethnicity subgroups. There are two significant limitations, however. First, between decennial censuses, the data do not support indicators for places below the state level, and state level indicators can be constructed only by combining multiple years of CPS data. One solution currently under consideration by the Bureau of the Census is the fielding of a Continuous Measurement Survey (CMS) which was described in the previous section.

A second significant limitation is the lack of longitudinal indicators. Such indicators can reflect changes in family structure or residential stability over time, which are known to be negatively related to child well-being (Coleman, 1988; Hetherington and Clingempeel, 1992). The SIPP may be able to support some such indicators when it expands to four and one-half years of coverage per cohort. Some valuable longitudinal family indicators may require retrospective marriage and residential histories such as those taken in the National Survey of Families and Households.

---

[11]This indicator was originally developed by Christine Nord and Nicholas Zill for the national Kids Count Report (Kids Count, 1993).

[12]See Annie E. Casey, 1994, for details.

SOCIAL DEVELOPMENT AND PROBLEM BEHAVIORS

Sources of Data

Indicators in this area would include age-appropriate measures of psycho-social development, and measures of both pro-social and anti-social or problem behaviors. The major federal sources of data for such indicators include the National Household Education Survey, the CDC's Youth Risk Behavior Surveillance System, The Child Health Supplement to the National Health Interview Survey, and Monitoring the Future. The first three data sources are described above. Monitoring the Future is an annual survey of a nationally representative sample of high school seniors. The survey focuses on questions concerning drug use, delinquency, crime victimization, aspirations related to schooling, work, and family formation, and attitudes concerning such topics as race relations and the government.

In addition, the FBI's Uniform Crime Report system provides some data on youth arrests, the National Survey of Family Growth provides data on sexual and fertility behavior for females aged 15-19, and the National Household Survey on Drug Use provides annual data on teen drug use.

Table V lists and provides descriptive information on indicators of child social development and problem behaviors that are based on federal data sources and which appeared in one or more of the publications reviewed for this paper.

Pro-social Behaviors and Attitudes

Available indicators in this area have been limited primarily to the behaviors and attitudes of teens. Existing indicators of pro-social behaviors include the percent of teens who participate in organized sports, who regularly attend church, and who do the following activities on a daily basis: read, see friends, perform household chores, play music, do art, or write. Indicators related to attitudes and beliefs include the proportion who report that their peers approve and support hard work and good behavior, those who hold a variety of positive life goals as being extremely important (e.g. success in work, good family life, strong friendships, community involvement), and the proportion who are concerned about national problems such as crime, drugs, hunger and poverty, race relations, nuclear war, economics problems, and pollution.

Problem behaviors and Attitudes

Indicators of teen problem behaviors include measures of drug use, delinquency and violence, and sexual activity. Measures related to drug use include the proportion who regularly smoke cigarettes, who binge drink, and who have used various other controlled substances (e.g., cocaine, crack, marijuana, LSD) within the last 30 days. The proportion reporting peer approval for such behaviors is also reported. Indicators related to violence

include the proportion of teens who have carried a weapon to school, or who have been in a fight within the last 30 days, and the proportion of 10-17 year-olds arrested for violent crimes within the past year. Indicators related to sexual activity include the proportion who are sexually active, and the proportion who have had unprotected intercourse within the past year.

The Behavior Problems Index (BPI) is a composite indicator of problem behaviors based parent report. It is a 28-item scale developed by Nicholas Zill and James Peterson, and is based on the Achenbach Behavior Problems Checklist (Achenbach and Edelbrach, 1981) and other child behavior scales. Separate but parallel measures have been produced for children ages 4-11 and 12-17. The BPI has been asked in 1981 and 1988 as part of the Child Health Supplement to the National Health Interview Survey (NHIS). Current plans call for including the BPI in the core set of NHIS questions that are fielded every year beginning in 1996.

Major Limitations of Existing Measures of Social Development and Problem Behaviors

Of all of the categories of indicators reviewed in this paper, this is the area in which the most work remains to be done. The most striking limitation of the current stable of indicators of children's social development and problem behaviors is the lack of measures for children prior to their teen years. A review of existing publications featuring indicators produced only one measure, the BPI. And yet, this is an area in which a great deal of measurement work has been done, both on direct measures of social development in early childhood. and on measures of family functioning and the home environment that are known to affect a child's social development and well-being (Zaslow, Brown, Coiro and Blumenthal, 1994; Love, Aber and Brooks-Gunn, 1994; Phillips and Love, 1994). Though measures of this sort have appeared in previous federally sponsored surveys (e.g. the National Survey of Children, the National Survey of Families and Households, the National Longitudinal Survey of Youth), until very recently none have been incorporated into surveys that are to be repeated on a regular basis.

Fortunately, the National Center for Health Statistics is currently planning to incorporate some social development and family functioning measures into the NHIS child and family topical module as part of its NHIS redesign. It is scheduled to be fielded in 1997, and will be repeated every few years, providing the data from which indicators can be constructed and tracked over time. In addition, the school readiness supplement to the NHES, first fielded only last year but scheduled to be repeated every few years, contains a number of social development-related measures for children age three through seven that can serve as the basis for new regularly reported indicators for young children.

A second limitation has to do with inadequate coverage of the teen population. Many of the current indicators of social development and problem behaviors for teens in Table V are based on data sources that include only those teens who are still in school. While the YRBS and Monitoring the Future are valuable sources of data, they do not provide information on the very teens who are the most likely to be experiencing difficulties in these areas: those who

have dropped out of school. It is important that these or other surveys, such as the NHIS, be expanded to gather regular measurements of this sort for all teens.[13]

Finally, the existing stable of indicators of pro-social behaviors and attitudes requires further development. Historically, considerably more time and effort have been devoted to conceptualizing and tracking negative behaviors and attitudes than positive ones. (See Moore, 1994). Both conceptual work, determining which positive and behavioral attitudes are most important, and further data development are needed in this area.

---

[13] This was done on a one-time basis in 1992, when questions from the Youth Risk Behavior Survey were added to the National Health Interview Survey. The questions were given to a nationally representative sample of all children ages 12 and over, regardless of student status.

REFERENCES

Achenbach, T.M., and Edelbrock, C.S. (1981). Behavior problems and competencies reported by parents of normal and disturbed children aged four through sixteen. in Monographs of the Society for Research in Child Development, 46, Serial No. 188, pp. 1-82.

Annie E. Casey Foundation (1994) Kids count data book: state profiles of child well-being. Baltimore, Maryland.

Annie E. Casey Foundation (1993) Kids count data book: state profiles of child well-being. Baltimore, Maryland.

Center For Health Economics Research (1993) Access to health care key indicators for policy. Princeton, N.J.: The Robert Wood Johnson Foundation.

Center for the Study of Social Study (1994) A start-up list of outcome measures with annotations. Washington, D.C.

Child Trends. (1993) Researching the family: A guide to survey and statistical data on U.S. families. Washington, DC: Child Trends Inc.

Children's Defense Fund (1994) The state of America's children yearbook 1994. Washington, D.C. Children's Defense Fund.

Coleman, J. (1988). Social capital in the creation of human capital. American Journal of Sociology. 94: s95-s120.

Duncan, G., Brooks-Gunn, J., and Klebanov, P.K. (1994). Economic deprivation and early-childhood development. Child Development.

Hetherington, E.M., and Clingempeel, W.G. (1992). Coping with marital transitions: a family systems perspective. Monographs of the Society for Research in Child Development, 57, (2-3, Serial No. 227).

Hernandez, D., and Myers, D. (1980) America's children resources from family, government, and the economy. Russell Sage Foundation, New York.

Hernandez, Don (1993) We the American children. Washington, D.C.: U.S. Dept. of Commerce.

Love, J., Aber, L., and Brooks-Gunn, J. (1994). Strategies for assessing community progress toward achieving the first national education goal. Princeton, NJ. October, 1994.

Maternal and Child Health Bureau (1993) Child Health USA '92. Washington, DC.: U.S. Department of Health and Human Services.

Moore, K. (1994). Criteria for indicators of child well-being. Prepared for the conference on "Indicators of Children's Well-Being," The Cloister, Bethesda, MD, November 17-18, 1994.

Moore, K. (1991) A state-by-state look at teenage childbearing in the u.s. Flint, MI: The Charles Stewart Mott Foundation.

Moore, K., and Snyder, M.A. (1994) Facts at a glance. Washington, DC: Child Trends, Inc.

National Center for Child Abuse and Neglect (1994) Child maltreatment 1992: reports from the states to the national center on child abuse and neglect. Washington, D.C.: U.S. Dept. of Health and Human Services.

National Commission on Children (1993) Just the facts, a summary of recent information on America's children and their families. Washington, D.C.

National Education Goals Panel(1993) The national education goals report, volume one: the national report. Washington, D.C.

National Education Goals Panel (1993) The national education goals report, volume two: state reports. Washington, D.C.

Nord, C. and Zill, N. (1994) Running in place: how american families are faring in a changing economy and an individual society. Washington, D.C., Child Trends, Inc.

Phillips, D., and Love, J. (1994). Indicators for school readiness, schooling, and child care in early and middle childhood. (draft). Prepared for the conference on "Indicators of Children's Well-Being," The Cloister, Bethesda, MD, November 17-18, 1994.

Pollard, K.M., and Riche, M. F. (1994). The CPS and Kids Count: A Report to the Annie E. Casey Foundation. Washington, D.C.: Population Reference Bureau.

The Population Reference Bureau (1992) The challenge of change: what the 1990 census tells us about children. Washington, D.C.: Center for the Study of Social Policy.

Schorr, L., Farrow, F., Hornbeck, D. and Watson, S. (1994) The case for shifting to results-based accountability. Washington, D.C. Center for the Study of Social Policy.

United Way of America (1993) <u>Standards for success: building community supports for America's children.</u> Alexandria, Virginia.

U.S. Department of Education (1993) <u>Youth indicators: trends in the well-being of american youth.</u> Washington DC.

U.S. Department of Health and Human Services (1990-1991) <u>Chronic disease and health promotion: 1990-1991 Youth Risk Behavior Surveillance System.</u> Reprints from the MMWR. Atlanta, Georgia National Center for Chronic Disease Prevention and Health Promotion.

U.S. House of Representatives, Committee on Children, Youth and Families (1989) <u>U.S. children and their families: current conditions and recent trends, 1989.</u> Washington, D.C.: U.S. Government Printing Office.

Zaslow, M., Brown, B., Coiro, M.J., and Blumenthal, C. (1994). Assessing family functioning in community-level interventions for families and children. Washington, D.C.: Child Trends.

Federal Indicators of Children's Well-Being: Measures Currently Available Through the Federal Statistical System

Appendix: Tables

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE I: CHILD HEALTH (mortality, health conditions, health care, and related behaviors)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
Mortality							
1. Infant, neonatal and post-neonatal mortality rates (per 1000)		X			Annual	N,S,L	Vital Stats
2. Child mortality rate from all causes	X	X	X	X	Annual	N,S,L	Vital Stats
3. Teen Violent Death rate (accident, suicide, homicide) (ages 15-19)				X	Annual	N,S,L	Vital Stats
4. % of 9th - 12th graders who have attempted suicide in the past 12 months				X	Semi-Annual	N,S*,L*	YRBS
Health Conditions							
5. Healthy Birth Index: % of births rated positively on all four of the following indicators: APGAR score 9+; birth weight of 2500+ grams; gestational age of 37+ weeks; mother received prenatal care in first trimester of pregnancy		X			Annual	N, S, L	Vital Stats

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE 1: CHILD HEALTH (mortality, health conditions, health care, and related behaviors)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
6. Children's Health Index: % of children born with 0,1,2,3+ of the following risk factors: late or no prenatal care; low maternal weight gain (<21 lbs.); having 3 or more siblings; mother smoked while pregnant; mother drank alcohol while pregnant; birth < 18 months from previous birth		X			Annual	N,S,L	Vital Stats
7. Proportion of births that are Low birth weight (< 5.5 lbs.), and very low birth weight (< 3.3 lbs.)		X			Annual	N,S,L	Vital Stats
8. % of infants born with congenital anomalies		X			Annual	N,S,L	Vital Stats
9. Child abuse:neglect rate: reported or confirmed cases per 1000 children age 0-17	X	X	X	X	Annual	N, S	NCANDS
10. Incidence of AIDS in children and youth (0-13, 14-19, 20-24)	X	X	X	X	Annual	N,S,L*	CDC
11. Rate of syphilis, gonorrhea in 15-19 year olds				X	Annual	N,S,L	CDC
12. % of 9th-12th graders who have seriously considered suicide in past 12 months				X	Semi-annual	S*,L*	YRBS

* N = Nation, S = State, L = Local Area,
  S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE I: CHILD HEALTH (mortality, health conditions, health care, and related behaviors)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
13. Incidence of measles in children under age 18	X				Annual	N,S,L	CDC
14. % children who are limited by chronic health conditions	X	X	X	X	Annual	N	NHIS
15. % of children ever experiencing a delay in growth or development	X	X	X	X	1982, 88, 97	N	NHIS-CHS
16. Annual victimization rate among youth ages 12+ from violent crime				X	Annual	N,S*	NCVS
17. % of high school seniors who report being very happy				X	Annual	N	MOF
Health Care							
18. % of children covered by health insurance (public,private,none)	X	X	X	X	Annual	N	CPS-March
19. % children w/ no physician visits in last 12 months	X	X (3-7)	X	X	Annual / Every 2-4 Years	N / N	NHIS / NHES
20. % of children with a usual source of health care (e.g. Drs. office, clinic)	X	X / X (3-7)	X	X	Annual / Every 2-4 Years	N / N	NHIS / NHES
21. # of physician visits per year	X	X	X	X	Annual	N	NHIS

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE I: CHILD HEALTH (mortality, health conditions, health care, and related behaviors)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
22. % pre-school children who have not seen a dentist in the past year		X			Every 2-4 years	N	NHES
23. % mothers receiving prenatal care in first trimester		X			Annual	N,S,L	Vital Stats
24. % mothers receiving late or no prenatal care		X			Annual	N,S,L	Vital Stats
Health-Related Behaviors							
25. % of teens ages 15+ who are sexually active				X	Semi-annual	N,S*,L*	YRBS
26. Rate of birth control use, by type, among teens ages 15+				X	Semi-annual / Every 6 years	N,S*,L* / NSFG	YRBS
27. % of 9th-12th graders who have driven drunk or with a drunk driver in the past 30 days				X	Semi-Annual	N,S*,L*	YRBS
28. % children who regularly use seat belts	X	X	X	X	1982, 88, 97	N	NHIS-CHS
29. Rate of regular seat belt use among 9th-12th graders				X	Semi-Annual	N,S*,L*	YRBS
30. Rate of bicycle helmet use among 9th - 12th graders				?	Semi-Annual	N,S*,L*	YRBS

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

SOURCE KEY

AHS	American Housing Survey
CDC	Center for Disease Control
Census	Decennial Census
CPS-March	Current Population Survey-March Supplement
CPS-May	Current Population Survey-May Supplement
CPS-October	Current Population Survey-October Supplement
ETS	Educational Testing Service
MOF	Monitoring the Future
NAEP	National Assessment of Educational Progress
NCES	National Center for Educational Statistics
NCANDS	National Child Abuse and Neglect Data System
NCVS	National Crime Victimization Survey
NHES	National Household Education Survey
NHANES	National Health and Nutrition Examination Survey
NHIS	National Health Interview Survey
NHIS-CHS	National Health Interview Survey - Child Health Supplement
NHSDA	National Household Survey on Drug Abuse
NSFG	National Survey of Family Growth
SIPP	Survey of Income and Program Participation
UCR	Uniform Crime Reports
Vital Stats	Vital Statistics
YRBS	Youth Risk Behavior Survey[1]

[1]Government entities administering the state and local surveys are not required to make information from the surveys public, though most of them do. National level information is available through the Center for Disease Control.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE II: EDUCATION (enrollment, achievement/proficiency, related behaviors, school characteristics)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
Enrollment							
1. % of pre-K 3-5 year olds enrolled in pre-school		X			Semi-annual	N	NHES
2. Pre-school enrollment rate of 3-4 year olds		X			Annual	N	CPS-October
3. % of eligible children enrolled in head start		X			Semi-annual	N	NHES
4. % of children age 6-7 who have repeated 1st or 2nd grade			X		Semi-annual	N	NHES
5. % students ages 7-17 who are behind age-for-grade			X	X	Annual	N	CPS-October
6. % of 14-17 year olds enrolled in school				X	Annual	N	CPS-October
7. % of 16-24 year olds who are high school dropouts				X	Annual	N	CPS-October
8. % 19-20 year olds who lack a high school credential					Annual	N	CPS-October
9. On-time graduation: the % of 9th graders who graduate from high school 4 years later				X	Annual	N, S	Dept. of Ed.

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE II: EDUCATION (enrollment, achievement/proficiency, related behaviors, school characteristics)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
Achievement/Proficiency							
10. Reading and math achievement for 4th, 8th, and 12th graders: % of children demonstrating proficient or advanced achievement in these areas			X	X	Semi-Annual (may be changed to every 3 years)	N,S*	NAEP
11. Science and writing achievement for 4th, 8th, and 12th graders: % of children demonstrating proficient or advanced achievement in these areas			X	X	Ever 4 years	N,S*	NAEP
12. U.S. history and geography achievement for 4th, 8th, and 12th graders: % of children demonstrating proficient or advanced achievement in these areas			X	X	Every 6 years (may be changed to every 4 years)	N,S*	NAEP
13. Average SAT scores for college bound high school seniors (math and verbal)				X	Annual	N,S,L	ETS
Related Behaviors and Characteristics							
14. % of children ages 3-5 who are read to every day by a parent or household member		X			Every 2-4 years	N	NHES
15. % pre-K children ages 3-5 who are told stories 3+ times per week by a parent or household member		X			Every 2-4 years	N	NHES

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE II: EDUCATION (enrollment, achievement/proficiency, related behaviors, school characteristics)

Indicator	Approximate Age Group					Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18				
16. % pre-K children ages 3-5 who were taken to the library 1+ times in the last month		X				Every 2-4 years	N	NHES
17. % pre-K children who engaged in songs, music, or art with parent or other household member in last month		X				Every 2-4 years	N	NHES
18. Learning opportunities: % of pre-K children ages 3-5 whose parents regularly engage them in the following activities: play, concert, art gallery, museum, zoo, errands, household chores, discussion of family history or ethnic heritage, events sponsored by community or religious groups		X				Every 2-4 Years	N	NHES
19. Number of hours of homework each day (4th, 8th, and 12th grade)			X	X		Semi-annual	N,S*	NAEP
20. % students reading 10+ pages per day (4th, 8th, and 12th grade)			X	X		Semi-annual	N,S*	NAEP
21. % students absent 3+ days in previous month (4th, 8th, and 12th grade)			X	X		Semi-annual	N,S*	NAEP
22. % students watching 6+ hours of T.V. per day (4th, 8th, and 12th grade)			X	X		Semi-annual	N,S*	NAEP

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE II: EDUCATION (enrollment, achievement/proficiency, related behaviors, school characteristics)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
23. % of children ages 3+ who ever had learning disabilities		X	X	X	1982, 88, 97	N	NHIS-CHS
		X (3-7)			Every 2-4 years	N	NHES
24. % of high school seniors who intend to go to college				X	Annual	N	MOF
25. % of students with positive attitudes towards mathematics, sciences (4th, 8th, and 12th grade)			X	X	Semi-annual	N,S*	NAEP
School Characteristics							
26. % of children in troubled schools, defined as schools with significant student behavioral, conduct, or staff morale problems			X	X	Annual	N,S	SASS
27. Average expenditures per student			X	X	Annual	N,S	NCES

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

SOURCE KEY

AHS	American Housing Survey
CDC	Center for Disease Control
Census	Decennial Census
CPS-March	Current Population Survey-March Supplement
CPS-May	Current Population Survey-May Supplement
CPS-October	Current Population Survey-October Supplement
ETS	Educational Testing Service
MOF	Monitoring the Future
NAEP	National Assessment of Educational Progress
NCES	National Center for Educational Statistics
NCVS	National Crime Victimization Survey
NHES	National Household Education Survey
NHANES	National Health and Nutrition Examination Survey
NHIS	National Health Interview Survey
NHIS-CHS	National Health Interview Survey - Child Health Supplement
NHSDA	National Household Survey on Drug Abuse
NSFG	National Survey of Family Growth
SASS	Schools and Staffing Survey
SIPP	Survey of Income and Program Participation
UCR	Uniform Crime Reports
U.S. Dept. of Ed.	U.S. Department of Education
Vital Stats	Vital Statistics
YRBS	Youth Risk Behavior Survey[2]

[2]Government entities administering the state and local surveys are not required to make information from the surveys public, though most of them do. National level information is available through the Center for Disease Control.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE III: ECONOMIC SECURITY (poverty/income, support programs, employment, housing)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
Poverty/Income							
1. % of children in poverty	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
					Decennial	N,S,L	Census
2. % of children at or near poverty (<150% or <200% of poverty line)	X	X	X	X	Annual	N	CPS-March
	X	X	X	X	Annual	N	SIPP
					Decennial	N,S,L	Census
3. % of children in extreme poverty (<50% of poverty line)	X	X	X	X	Annual	N	CPS-March
	X	X	X	X	Annual	N	SIPP
					Decennial	N,S,L	Census
4. Mean or median income of families with children	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
					Decennial	N,S,L	Census
5. % of eligible families not receiving child support payments					Annual	N	CPS-April
					Annual	N	SIPP

* N = Nation, S = State, L = Local Area,
  S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE III: ECONOMIC SECURITY (poverty/income, support programs, employment, housing)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
6. % of mother-headed families receiving child support or alimony					Annual	N	CPS-April
					Annual	N	SIPP
Government Support Programs							
7. % of children in families receiving AFDC in past year	X	X	X	X	Annual	N	CPS-March,
					Annual	N	SIPP
8. % of children in families receiving food stamps in past year	X	X	X	X	Annual	N	CPS-March,
					Annual	N	SIPP
9. % of children in families in subsidized or public housing	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
10. % of children in families receiving energy assistance in past year	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
11. % of children receiving free or reduced price lunches	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE III: ECONOMIC SECURITY (poverty/income, support programs, employment, housing)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
Employment (Parent and Youth)							
12. % of children less than age (1,3,6,18) where both or only parents are working	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
					Decennial	N,S,L	Census
13. % of children less than age (1,3,6,18) whose mothers are in the labor force	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
					Decennial	N,S,L	Census
14. % of children with no parents in the labor force	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
					Decennial	N,S,L	Census
15. % of children where no parent is fully employed (full time, full year)	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
16. % of youth age 16-19 who are unemployed				X	Annual	N	CPS-March
					Annual	N	SIPP

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE III: ECONOMIC SECURITY (poverty/income, support programs, employment, housing)

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
17. % of youth ages 16-19 who are idle in a given week (not-in-school, not-at -work or in the military, not a homemaker)				X	Annual	N	CPS-March
					Annual	N	SIPP
Housing							
18. % of children living in crowded conditions (<1 room per person)	X	X	X	X	Semi-annual	N,L*	AHS
					Decennial	N,S,L	Census
19. % of children living in houses without complete plumbing or kitchen facilities.	X	X	X	X	Semi-annual	N,L*	AHS
					Decennial	N,S,L	Census
20. % of children living in inadequate housing (severe or moderate physical problems)	X	X	X	X	Semi-annual	N,L*	AHS
21. % of children in families where housing costs exceed 50% of family income	X	X	X	X	Semi-annual	N,L*	AHS
					Decennial	N,S,L	Census

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

SOURCE KEY

AHS — American Housing Survey
CDC — Center for Disease Control
Census — Decennial Census
CPS-March — Current Population Survey-March Supplement
CPS-May — Current Population Survey-May Supplement
CPS-October — Current Population Survey-October Supplement
ETS — Educational Testing Service
MOF — Monitoring the Future
NAEP — National Assessment of Educational Progress
NCES — National Center for Educational Statistics
NCVS — National Crime Victimization Survey
NHES — National Household Education Survey
NHANES — National Health and Nutrition Examination Survey
NHIS — National Health Interview Survey
NHIS-CHS — National Health Interview Survey - Child Health Supplement
NHSDA — National Household Survey on Drug Abuse
NSFG — National Survey of Family Growth
SIPP — Survey of Income and Program Participation
UCR — Uniform Crime Reports
Vital Stats. — Vital Statistics
YRBS — Youth Risk Behavior Survey[3]

[3]Government entities administering the state and local surveys are not required to make information from the surveys public, though most of them do. National level information is available through the Center for Disease Control.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE IV: POPULATION, FAMILY, AND NEIGHBORHOOD

Indicator	Approximate Age Group					Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18				
Population Characteristics								
1. Number of children	X	X	X	X		Annual	N	CPS-March
						Annual	N	SIPP
						Decennial	N,S,L	Census
2. Children as a percent of the total population	X	X	X	X		Annual	N	CPS-March
						Annual	N	SIPP
						Decennial	N,S,L	Census
3. % of children in major race/ethnicity groups	X	X	X	X		Annual	N	CPS-March
						Annual	N	SIPP
						Decennial	N,S,L	Census
4. % of children who have moved within the last year, by type of move (intra-county, inter- county, interstate)	X	X	X	X		Annual	N	CPS-March
5. % of children who are linguistically isolated, defined as living in a household where no one age 14 or older speaks english only or very well			X	X		Decennial	N,S,L	Census

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE IV: POPULATION, FAMILY, AND NEIGHBORHOOD

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
6. % of children < age 5 in child care		X			Annual	N	SIPP
Family and Household Characteristics							
7. % of children in each of the following living situations: two parents, single female parent, single male parent, no parent	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
					Decennial	N,S,L	Census
8. % of children living in institutions or group quarters	X	X	X	X	Decennial	N,S,L	Census
9. % children in step-families	X	X	X	X	Annual	N	SIPP
10. % of children living in related and unrelated subfamilies	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
					Decennial	N,S,L	Census
11. % of Households w/ children	X	X	X	X	Annual	N	CPS-March
					Annual	N	SIPP
					Decennial	N,S,L	Census
12. % births to unmarried women				X	Annual	N,S,L	Vital Stats.
13. % teen births to unmarried teen females				X	Annual	N,S,L	Vital Stats.

* N = Nation, S = State, L = Local Area,
  S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE IV: POPULATION, FAMILY, AND NEIGHBORHOOD

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
14. Teen birth rate (ages 15-17, 15-19)				X	Annual	N,S,L	Vital Stats.
15. Second births to unmarried teen females: rate per 1000				X	Annual	N,S,L	Vital Stats.
16. New family index: (% first births to women with <12 years schooling, unmarried, and under age 20)		X		X	Annual / Decennial	N,S,L / N,S,L	Vital Stats / Census
Neighborhood Characteristics							
17. % of children living in severely distressed neighborhoods, defined as census tracts 1+ standard deviations beyond the mean level in 4 of 5 characteristics: poverty, female headed families, high school dropouts, males unattached to the labor force, and families receiving public assistance	X	X	X	X	Decennial	N,S,L	Census
18. % who live in high poverty neighborhoods (40+ percent poor)	X	X	X	X	Decennial	N,S,L	Census
19. % of high school seniors who would not want to live in an area where most of the neighbors were of other races				X	Annual	N	MOF

* N = Nation, S = State, L = Local Area,
  S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

SOURCE KEY

AHS	American Housing Survey
CDC	Center for Disease Control
Census	Decennial Census
CPS-March	Current Population Survey-March Supplement
CPS-May	Current Population Survey-May Supplement
CPS-October	Current Population Survey-October Supplement
ETS	Educational Testing Service
MOF	Monitoring the Future
NAEP	National Assessment of Educational Progress
NCES	National Center for Educational Statistics
NCVS	National Crime Victimization Survey
NHES	National Household Education Survey
NHANES	National Health and Nutrition Examination Survey
NHIS	National Health Interview Survey
NHIS-CHS	National Health Interview Survey - Child Health Supplement
NHSDA	National Household Survey on Drug Abuse
NSFG	National Survey of Family Growth
SIPP	Survey of Income and Program Participation
UCR	Uniform Crime Reports
Vital Stats.	Vital Statistics
YRBS	Youth Risk Behavior Survey[4]

[4]Government entities administering the state and local surveys are not required to make information from the surveys public, though most of them do. National level information is available through the Center for Disease Control.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE V: SOCIAL DEVELOPMENT AND PROBLEM BEHAVIORS

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
Pro-social behaviors and attitudes							
1. Rate of participation in organized sports among 9th-12th graders				X	Semi-annual	N,S*,L*	YRBS
2. Frequency of church attendance among high school seniors				X	Annual	N	MOF
3. % high school seniors for whom religion plays an important role in their lives				X	Annual	N	MOF
4. % of high school seniors who believe that the following life goals are extremely important: being successful at work; having strong friendships; having a good family life; having lots of money; making a contribution to society; working to correct social inequities; being a leader in my community.				X	Annual	N	MOF
5. % of high school seniors who often worry about the following national problems: crime and violence; drugs; hunger and poverty; race relations; nuclear war; economic problems; pollution.				X	Annual	N	MOF

* N = Nation, S = State, L = Local Area,
  S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE V: SOCIAL DEVELOPMENT AND PROBLEM BEHAVIORS

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
6. % of high school seniors who see friends, read, do sports, work around the house, play music, do art, or write on a daily basis				X	Annual	N	MOF
7. % of children in grades 6-12 reporting peer approval of hard work and good behavior				X	Every 2-4 years	N	NHES
Problem behaviors and attitudes							
8. % of children with high rates of behavior problems, as measured by the Behavior Problems Index (BPI)	X	X	X	X	1982, 88, 97	N	NHIS-CHS
9. % of youths age 10-17 arrested for violent crimes in the past year				X	Annual	N,S	UCR
10. % of 9th-12th graders who have carried weapons (knife, gun, club) in last 30 days				X	Semi-annual	N,S*,L*	YRBS
11. % of 9th-12th graders who were in a fight in the last 30 days				X	Semi-annual	N,S*,L*	YRBS
12. Cigarettes: % of teens who smoke cigarettes regularly				X	irregular: 1-3 year intervals	N	NHSDA
					Semi-annual	N,S*,L*	YRBS

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

FEDERAL INDICATORS OF CHILDREN'S WELL-BEING

TABLE V: SOCIAL DEVELOPMENT AND PROBLEM BEHAVIORS

Indicator	Approximate Age Group				Periodicity	Geographic Level *	Source
	0-18	0-5	6-11	12-18			
13. Problem drinking: % of 9th-12th graders who have had 5 or more drinks in a single evening in the last 30 days				X	irregular: 1-3 year intervals / Semi-annual	N / N,S*,L*	NHSDA / YRBS
14. Substance abuse: % of 9th-12th graders who have used marijuana, cocaine, crack, LSD, PCP, ecstacy, mushrooms, speed, ice, heroin, or pills without a Drs. prescription, in the last 30 days				X	irregular: 1-3 year intervals / Semi-annual	N / N,S*,L*	NHSDA / YRBS
15. % of 9th-12th graders who have had unprotected intercourse within the last year				X	Semi-annual	N,S*,L*	YRBS
16. % of 9th-12th graders who are sexually active.				X	Semi-annual	N,S*,L*	YRBS
17. % of children in grades 6-12 who report peer approval of smoking tobacco, drinking alcohol				X	Every 2-4 years	N	NHES

* N = Nation, S = State, L = Local Area,
S* = Selected States, L* = Selected Local Areas

Prepared by Child Trends, Inc.

SOURCE KEY

AHS	American Housing Survey
CDC	Center for Disease Control
Census	Decennial Census
CPS-March	Current Population Survey-March Supplement
CPS-May	Current Population Survey-May Supplement
CPS-October	Current Population Survey-October Supplement
ETS	Educational Testing Service
MOF	Monitoring the Future
NAEP	National Assessment of Educational Progress
NCES	National Center for Educational Statistics
NCVS	National Crime Victimization Survey
NHES	National Household Education Survey
NHANES	National Health and Nutrition Examination Survey
NHIS	National Health Interview Survey
NHIS-CHS	National Health Interview Survey - Child Health Supplement
NHSDA	National Household Survey on Drug Abuse
NSFG	National Survey of Family Growth
SIPP	Survey of Income and Program Participation
UCR	Uniform Crime Reports
Vital Stats	Vital Statistics
YRBS	Youth Risk Behavior Survey[3]

[3]Government entities administering the state and local surveys are not required to make information from the surveys public, though most of them do. National level information is available through the Center for Disease Control.

KIDS COUNT REPORTS FROM THE STATES

by

Tom Kaplan
Institute for Research on Poverty
University of Wisconsin-Madison

Background Paper Prepared for the Conference
"Indicators of Children's Well-Being," Rockville, MD
November 17-18, 1994

October 1994

Under its Kids Count program, the Annie. E. Casey Foundation supports both national and state projects on indicators of child well-being. The first national Kids Count Data Book was published in 1990, and the initial state-level Kids Count data books appeared in 1991 and 1992. State Kids Count reports funded by Casey Foundation grants are now proceeding in 47 states plus the District of Columbia. The Casey Foundation expects to sign contracts with projects in the three remaining states (Alaska, Nevada, and Virginia) by the end of 1994. As of September 1994, projects in 35 states plus the District of Columbia had produced at least one annual Kids Count report under a contract with the Casey Foundation. Projects in two other states (Pennsylvania and Utah) had produced similar data reports with funding from other sources.

This intensity of reporting on the condition of U.S. children at the subnational level, largely attributable to the efforts of just one foundation, is unprecedented. The closest comparison may be the early-twentieth-century city survey movement, which received support from the newly established Russell Sage Foundation starting in 1906. That foundation promoted large, detailed surveys of social conditions in several cities, and also funded a renamed and reinvigorated journal of the social work establishment (called Survey starting in 1909) to report on smaller studies. The survey movement expanded rapidly with Sage Foundation support, influencing major pre-World War I fire prevention and sanitation reforms in many cities. Still, the surveys were never as geographically comprehensive as is the current Kids Count effort.

In this paper, I describe the state Kids Count reports so far produced and assess lessons they may offer to others interested in examining the condition or well-being of children.[1] As part of this effort, I reviewed Kids Count reports from 21 states and the District of Columbia, plus a similar (but not Casey Foundation-funded) report from Pennsylvania.[2] Time limitations prevented me from reading any of the reports entirely or from reviewing reports from all the states. My sampling design, both within each report and among all possible state reports, can most charitably be represented as purposive; I wanted to review reports from different parts of the country, reports that were organized in different ways, reports prepared by different kinds of agencies (university research centers, state government agencies, and advocacy groups), reports from states with many counties and states with few counties, and reports that displayed more and less narrative. I performed no formal content analysis on the reports I did read; that is, I did not start with a list of qualities and measure how many reports contained each quality. This paper, then, represents one person's somewhat informal reading of selected reports that might not be representative of all state Kids Count reports.

Although the reading was informal, it was also, at least from one perspective, educated. I have prepared one (and am close to completing a second) state Kids Count data book for the Wisconsin project, and I understand many of the tensions that arise in decisions about data selection and presentation in these limited-budget reports. Despite the major funding commitment of the Casey Foundation to the projects, limitations in the data development, data management, and writing stages can be reasonably severe when $100,000-$150,000 per state per year--plus whatever grants can be raised from other sources--must be spread among data development and management, publication design, publicity, paper and printing, and advocacy efforts. In my state, about half my time is all that is available for writing, data development, and data management.[3]

---

[1]This paper is, in part, an update of an earlier review by other authors of the first seven state Kids Count reports. See Brett V. Brown and Nicholas Zill, "A Review of the First Seven State Kids Count Annual Reports," Washington, D.C., Child Trends, Inc., September 1992.

[2]The 21 states are: Alabama, Arkansas, Colorado, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Minnesota, Montana, New Jersey, New York, North Carolina, South Carolina, Tennessee, Vermont, West Virginia, and Wisconsin.

[3]Many state data books differed significantly from the Wisconsin books I prepared--sometimes in ways that challenged my perceptions of the quality of the Wisconsin product. I have tried not to be defensive about these differences, or at least not to let any defensiveness affect this paper, but I may not entirely have succeeded.

Because my reading of the state data reports was informal, so are my findings, which I have organized in six topic areas: purpose, measuring the status of children, individual indicators, a frequent theme, comparisons, and organization of the books.

Purpose of the Books

The 1993 data book for Pennsylvania neatly summarizes the several purposes behind most of the state reports. This book notes (p. 5) that the document is intended to "serve at least four purposes. It provides

1. A centralized, accurate, and accessible data base that contains information about the status of our children for policy makers, advocates, parents, media, as well as the business, labor and religious communities.

2. A vehicle to raise awareness throughout the state and in every county about how our children are faring.

3. A tool to assess where children's needs are greatest so that we can target available resources most effectively.

4. A baseline so that we can mark successes and failures as we work to improve the lives of our children."

The various state Kids Count projects emphasize some of these purposes more than others, with little control exerted by the Casey Foundation. The 1994 Louisiana data book, for example, limits its advocacy to part of a gracefully written introduction of six pages. The introduction reminds readers that economic well-being, health, and school performance are all connected and that African American children in Louisiana score less well on all numeric indicators than do white children. The introduction then says that all the indicators could be improved if Louisiana made work pay for welfare recipients, offered pregnant women better access to prenatal care, offered teens routes other than parenthood "in their search for nurture, self-esteem, and a connection to the future," and invested more in preventing and responding to child abuse, etc. The remainder of the document consists of tables which report numbers on 33 indicators for the state as a whole and for each of Louisiana's 64 parishes.

In contrast, the 1993 Iowa report devotes its first eleven pages to a plea for a "common sense program" for "investing in families, prevention, and school readiness." This section proposes a detailed expansion, costing $34 million annually, of existing Iowa programs targeted at families who could benefit from early intervention. The next pages of the document offer a precise description of six existing early intervention programs in Iowa that could benefit from the expansion funds. For each of the six programs, a success story of an individual family is presented. (For example, Louise, in her fifth month of pregnancy with her fourth child, was facing eviction from her apartment, using cocaine, and receiving no prenatal care. Staff in an early intervention program found her an apartment, accompanied her to an obstetrics appointment, and nurtured a relationship that eventually included regular drug abuse treatment, immunizations for all her children, and arrangements for a special education program for one child. After giving birth to a healthy baby, Louise took "steps to prevent the birth of another child" and enrolled in a parenting class.) Only the last eleven pages of the Iowa document--just one-third of the book--are devoted to cramped tables showing numbers on nine indicators for Iowa as a whole and for each of its 99 counties.

I do not know whether the Iowa or Louisiana approach is the better strategy. With inevitable limitations in funding and space, choices must be made, and doubtless some factors particular to each state influence the choices. The Wisconsin 1994 report, for example, contains even less explicit advocacy than the Louisiana report. Part of the reason for the neutrality in the Wisconsin data book was a project goal of attracting donations of free paper for future reports from the Wisconsin paper industry. The 1993 New Jersey data book is the only one I reviewed that contains no narrative, not even a brief introduction, and hence no

explicit advocacy. One reason may be that the Public Service Electric and Gas Company of New Jersey was a major funder of the book.

States also have varying political and mass media traditions that may influence the nature of the data books. A neutral display of numbers prominently picked up by state media may have profound impact in some states; in others, a specific program proposal may serve to galvanize political action. In states with a strong tradition of policy control at the county and school district level, or in which sources of political power are dispersed and often changing, a "reference book" approach to the data reports may be sensible. In these states, the data books primarily make available a wide variety of information in an attractive, easy-to-read format, with the assumption that people wishing to influence state or local policy will use the information in ways that the preparers of the document cannot predict. The intent of the preparers is to include as much information as possible, for who knows what particular bit of data might sway some future decision?

The type of agency preparing the data book also seems to affect the kind of book produced in each state. With some exceptions (New Jersey is the most prominent), data reports prepared by advocacy organizations (for example, the reports from Iowa, Indiana, and Connecticut) contain the most narrative and the most explicit advocacy. In general, reports prepared by university departments and institutes (such as the Arkansas, Louisiana, and Wisconsin data books) tend to have more data and less explicit advocacy. The few data reports prepared by state agencies, such as the 1993 Tennessee report, also present more data and less narrative and explicit advocacy.

Of course, many preparers of the low-narrative reports might argue that the data themselves serve as advocacy. The Tennessee report, for example, states (on page 4): "The goal of this report is to provide information to increase public awareness of the serious problems that face many children in Tennessee. It is hoped that this increased awareness will encourage grassroots support for public and private efforts to improve the quality of life for children." Still, if funders want more or less explicit advocacy, the easiest way to exert influence may be through the kind of organization selected to prepare the document.

The Usefulness of the Data As a Measure of the Status of Children

Although the data reports may have several purposes, including that of serving as a broad reference tool for state and local citizens to use in unforeseeable ways, certainly one purpose of many of the books is, as the Pennsylvania report suggests, to create a baseline for marking future improvement or regression in the well-being of children. In one sense, any data about children collected in the same way for several years advance this purpose. Intuitively, however, some data do so better than others. No data report that I reviewed showed the winning times over many years in the 400-meter race at the state high school track tournament, although presumably this information is readily available. Somehow, we know that following such data over time tells us little important about the condition of children.

But how do we know this? Nicholas Zill and others have suggested that whatever data we track can be conceptualized as lying in five domains of well-being: economic and material adequacy, physical health and safety, cognitive development and academic achievement, emotional well-being, and moral development and social behavior.[4] Because 400-meter race times could fit under the physical health and safety domain, we still need some way of separating important from less important indicators within the domains. Brown and Zill are probably correct to suggest that the key to this puzzle lies in identifying important developmental milestones within each of the domains and then measuring the degree to which children have achieved those milestones.[5] We do not yet, however, have consensus on the milestones and the appropriate way to measure whether they have been reached.

---

[4]See, e.g., Nicholas Zill and Mary Jo Coiro, "Assessing the Condition of Children," Children and Youth Services Review, 14 (1992), 119-136.

[5]Brown and Zill, "Review of the First Seven Kids Count Annual Reports," pp. 1-2.

In states like Wisconsin, in which a reference book approach is considered desirable, probably two distinct parts of the data books will some day be appropriate. One part could provide the broad reference information that may be useful in unpredictable ways to a wide variety of citizens, and the other part could show the core variables that indicate how children are "really" doing. At this point, we probably do not know what these core variables are.

The next section of this report discusses indicators that states have so far used. Before turning to the individual indicators, however, it is useful to note that several state data books argue the general importance of concentrating on "outcome" rather than "input" indicators. If one wishes to measure how children are really faring, this kind of distinction seems appropriate, but it is not easy to maintain. Most data projects, for example, treat births to single parents as an important indicator, but is this an "outcome" (of the circumstances of young women and men) indicator, or an "input" (to the life chances of the newborn child) indicator? Many other frequently selected indicators, such as child poverty or the number of AFDC recipients, share this dual characteristic of being both an outcome of some circumstances and an input to others. A simple outcome/input dichotomy is thus difficult to maintain.

Individual Indicators

The national Kids Count Data Book for 1994 uses the following ten indicators of child well-being by state:

> Percentage of low-birthweight babies
> Infant mortality rate
> Death rate of children ages 1-14
> Percentage of all births that are to single teens
> Arrest rate of juveniles for violent crimes
> Percentage of high school students graduating on time
> Percentage of teens not in school and not in the labor force
> Teen violent death rate
> Percentage of children in poverty
> Percentage of children in single-parent families

State Kids Count reports frequently do not use all these indicators when reporting at the county level, partly owing to problems of data availability. Three indicators in the national report--percentage of teens not in school and not in the labor force, percentage of children in poverty, and percentage of children in single-parent families--are available to the Casey Foundation in the years between decennial censuses only from the annual March supplement to the Current Population Survey (CPS). Because the CPS does not survey enough families in any single state to allow for statewide generalization, the national Kids Count report merges the most recent five years of CPS data to arrive at state-by-state numbers. This methodology may offer an appropriate estimator at the state level (although it would be helpful if the national Kids Count data book showed standard errors for each state, perhaps in small print at the back of the book). Except for a few counties and cities with very large populations, the methodology does not work at the substate level. If state projects wish to use the three indicators, they must either show the number from the last decennial census or develop a different estimating methodology.

So far, most states have either excluded one or more of the three indicators or have used numbers from the 1990 census; these decisions may change as we move further from the 1990 census. The New York State Kids Count project, however, developed its own methodology for estimating annual child poverty rates by county. The methodology rests on a set of annually measurable factors that predicted with reasonable accuracy the census-determined 1989 child poverty rates in each county of New York State. In less densely populated counties, the factors that best predicted 1989 child poverty rates by New York county were the percentage of persons receiving food stamps, the ratio of dissolutions of marriages to new marriages, total government transfer payments to individuals as a percentage of total income, the percentage change in the child population between the two previous (1970 and 1980) censuses, the percentage of births in which the mother had no health

insurance or was on Medicaid, and the percentage of women receiving early prenatal care in the estimate year. Each of these factors was weighted, transfer payments having the largest effect on the estimate, followed by marriage dissolutions and then food stamp recipiency. No one knows, of course, how close this estimating methodology will be for child poverty by county in 1999.[6]

Problems also arise in the efforts of state Kids Count projects to report high school graduation rates by county. In the national Kids Count report, graduation rates are defined as the number of public high school graduates in a state divided by the public ninth-grade enrollment four years earlier, with some adjustments for overall migration to or from the state. The Casey Foundation may choose to report on graduation rates, rather than dropout rates, in part because graduation represents positive achievement, while dropout is a measure of negative problems. But graduation rates are more difficult to compute than are dropout rates. No good estimate of net migration at the county level exists in the years between the decennial censuses, and high schools in counties with high rates of net in-migration may show a graduation rate of more than 100. Some states, such as Arkansas, New York, West Virginia, and Wisconsin, show dropout but not graduation rates by county. Other states, such as Colorado, show both a dropout and graduation rate. A few projects, such as the 1993 New Jersey data book, include no information on school achievement.

The remaining indicators in the national Kids Count book are more readily available for substate jurisdictions. The juvenile violent crime arrest rates in the national data book stem from well-established uniform crime reporting procedures administered by the Federal Bureau of Investigation. According to FBI standards, murder, forcible rape, robbery, and aggravated assault are considered violent crimes. Aggregating reports of these crimes from individual law enforcement agencies to the county level is a relatively straightforward procedure, and many state data reports include this or similar information for each county. Several state data books (for example, the Georgia and West Virginia books), however, contain no information on arrests, but report instead on the number of juvenile delinquents on parole or in correctional facilities. This exclusion of violent crime arrest data may reflect concerns that police and prosecutorial emphases can skew violent crime rates; the largest component of that rate, aggravated assault, cannot always be precisely distinguished from simple assault, which is not considered a violent crime. A few state reports, such as Iowa and New Jersey, contain no information by county on delinquency.

The remaining core indicators in the national Kids Count data book--low birthweight babies, infant mortality, child death rate, percentage of all births that are to single teens, and teen violent death rate--all derive from well-established vital records systems. The information sources for these indicators are birth and death certificates routinely filled out in all states and easily available at the county level. It is possible to be critical of some of these indicators. For example, the percentage of all births that are to single teens depends as much on the fertility of older women and married teens as it does on the fertility of single teens. If the number of births to single teens were to fall, but not as fast as the number of births to women older than age 19, an improving situation (fewer teen births) would appear to be a worsening trend. In some form, however, the vital records data seem clearly useful, and every state Kids Count report makes substantial use of data from birth and death certificates.

Many states supplement the indicators appearing in the national data book with a large number of other variables. The most common are reports or substantiations of child abuse and neglect, the number or rate of children in foster care, number of women in the labor force, participation rates or numbers in such programs as Food Stamps and AFDC, data from standardized school achievement tests, the percentages of pregnancies in which prenatal care was provided in the first trimester, average household income by county, and child immunization data. (No state included all these variables.)

---

[6]The methodology did predict 1979 child poverty rates by New York county reasonably well. See Seth Leon and Nancy Dunton, Postcensal Estimates of Poverty for New York State Counties, New York State Kids Count, Albany, New York, May 1994.

One legacy the state Kids Count projects might leave to future generations is not just systematic reporting of existing data but an investment in new sources of data on children. So far, few states appear to have moved in this direction, although some exceptions stand out:

- The development in the New York project of a procedure for estimating child poverty by county between the census years.

- The addition of a question on concerns about the status of children to an annual survey of a probability sample of adults in Arkansas.

- The use in Georgia of an aggregate variable which assesses the life chances of a child at birth by merging three maternal characteristics--whether the mother is married, whether she has a high school education, and whether she is over age 20.[7]

- The use in Georgia of data from a 1990 national survey by the Centers for Disease control on "youth risk behavior." The Georgia project utilized state tables from the survey to estimate teen sexual activity in the state.

Although cost will be a barrier, the state projects might consider developing new forms of data.

A Common Theme

The introductory narratives of several state Kids Count reports follow a Dickensian "best of times and worst of times" theme.[8] The narratives declare that many children in the state are doing well and, overall, the state is doing better in terms of certain indicators now than in the past. On the other hand, many children are not doing so well, and many indicators show a worsening of child conditions in the state. Several quotations illustrate this theme:

Colorado (1993, p. 8): "Most of Colorado's children and families flourished during the 1980s, but a growing number did not."

Illinois (1992, p. 4): "Many children did make their way through school, healthy, safe, and well-educated. We should be thankful for their successes. However, far too many children in every part of the state were left out along the way."

Maryland (1993, p. 7): "Maryland's Kids Count Factbook shows that there are some promising improvements in child well-being.... Yet across the state, the disparity in the quality of the lives of children is disconcerting."

Vermont: (1993, p. 8): "The majority of Vermont children are healthy, live in two-parent homes in which both parents work, aren't poor, aren't abused, don't get into trouble with the law, and graduate from high school.... Vermont also should be a leader for children and families who slip through the cracks. They are the thousands of kids going to bed hungry, the one in five who lives in a single-parent family, the hundreds of teens who drop out of high school, the hundreds each year who bear children before they are 20, and the mothers who must work but lack adequate child care."

---

[7]This merged variable also appears in Nicholas Zill and Christine Winquist Nord, Running in Place: How American Families Are Faring in a Changing Economy and an Individualistic Society (Washington, D.C.: Child Trends, Inc., 1994).

[8]See the opening paragraph of A Tale of Two Cities.

114

In any state, of course, some children will do better than others on any given set of indicators. In almost all states, it appears that some health indicators, such as infant mortality, have improved with the development of more sophisticated medical technologies, while other indicators have regressed. Certainly, it is important for the data books to portray both improvements and regressions, if only because policymakers told just about problems might feel so overwhelmed as to lose hope for improvement. It is to be hoped, however, that the repeated theme of some children faring well and others not can avoid becoming formulaic and trite.

Making Comparisons

Many state reports make either geographic or temporal comparisons for each indicator the report cites. In geographic comparisons, each county is compared with every other county for that indicator, and a rank order is established. In temporal comparisons, each county's performance in a current year is compared to a base year.

The use of comparisons raises a few issues. First, as Brown and Zill have pointed out, an individual ranking for each county can suggest larger differences among counties than are actually present. The difference in performance between a county ranking fifth and fifteenth may actually be small; if the rankings derive from sample data, the differences may reflect the accident of the particular sample rather than a real difference in underlying conditions. Most states at least publish the raw numbers as well as the ranks, and they might also consider showing standard errors especially for the relatively few county-by-county indicators that derive from sample data.[9]

The second issue in making comparisons is the question of what represents better and what worse. This is particularly an issue in temporal comparisons, which suggest that, for any given indicator, the county is doing better or worse than it was in a base year. (Some geographic comparisons also indicate that a county is doing better or worse than the state average, but others simply rank the counties from highest to lowest, without arguing that the highest is best or worst.) These issues of better and worse arise especially in data that compare rates of program utilization. It is not clear, for example, that a county with more substantiated child abuse cases than at an earlier time is actually doing worse; it is possible that the county is doing a better job of publicizing reporting procedures and investigating the reports it receives. Similarly, some readers may wonder why having a lower percentage of children on AFDC in the current year than in the base year is a mark of improvement. The lower percentage may simply reflect a reduction or freeze in AFDC benefits.

A few states, such as West Virginia and New Jersey, also display a total composite ranking for each county. Because neither project weighted the indicators differently, the assumption behind the composite score must be that each of the indicators is equally important to the overall condition of children. Most of the state projects were reluctant to make that assumption and did not try to develop a composite score.

Data Book Organization

Whether or not state Kids Count projects choose to follow the Iowa approach of including policy proposals in their annual documents, the projects have two broad choices for presentation of data. They can (1) organize the book around indicators, listing on one or two pages all county scores on that indicator and then move to the next indicator; or (2) organize the book around counties, showing on one or two pages each county's score on all the indicators. Organizing around indicators allows for some narrative discussing the meaning, strengths, and weaknesses of each indicator, but does not allow a reader to see quickly how one county is doing on all the indicators. Organizing around counties promotes an easy reference for how a county is doing, but makes meaningful discussion of the indicator more difficult.

[9]Brown and Zill, "Review of the First Seven State Kids Count Annual Reports," pp. 10-12.

Part of the decision on which way to organize will rest on where policy regarding children is most often decided. If state government makes most of the decisions, then organization around the indicators makes most sense. If county and other local governments make key decisions, then organizing the document around counties may be most appropriate. Some state projects combine the approaches. The New York data book, for example, organizes the first half of the book around indicators; the second half reorganizes the same information to show it by county. Other state projects with the necessary financial and staff resources may find this a useful model.

ASSESSING CHILDREN'S WELL-BEING: HOW MANY AND WHICH INDICATORS, AND AT WHAT COST?

Robert H. Haveman
University of Wisconsin-Madison

This conference has been a field day for applied social researchers--sociologists, developmental psychologists, demographers, bean counters, and--yes--even economists. It was our opportunity to construct dream lists of indicators of children's environment, families, schools, characteristics, behaviors, attitudes, expectations, problems and accomplishments. We explored each of these dimensions in great detail, with multiple indicators for each of the categories identified and (in most cases) characterized as crucial for fully understanding a particular aspect of children's up-bringing, attainments, or behaviors.

As an example of the comprehensiveness of the coverage that we gave to specific aspects of children's lives and well-being, consider the concept of the "neighborhood environment" in which children grow up. Clearly some children grow up in supportive neighborhoods with peers from successful families, while others are raised in "bad" neighborhoods with a high prevalence of high school dropouts, single-parent families, welfare dependency.[1] We were told that much work was necessary in order to construct a series of neighborhood indicators of children's well-being, in particular we needed to:

-- identify neighborhoods as people themselves perceive them, and not as administrative units; or, barring this, "map locally based social interaction onto a spatial grid"; or, barring this, employ census tract or "block groups" as poor neighborhood proxies;

-- include, in one study, several overlapping definitions of neighborhood, so as to decide which is the best

-- develop indicators of neighborhoods that were outcome indicators (we were given 15 such indicators for each neighborhood)

-- develop indicators of neighborhood "context" that describe the aspects of "community environment that may be important factors in the well-being of children (we were given 20 such indicators)[2]

-- develop neighborhood indicators that will permit demographic (age and gender, at a minimum) standardization

-- develop such neighborhood data on a longitudinal basis, to identify the community developmental trajectories

---

[1] I have chosen this aspect of children's well-being because attributes of this characteristic that were suggested at the conference were less demanding than those placed on, say, family circumstances and choices.

[2] These neighborhood data need to be linked to individual children's characteristics and family processes (data that is "multilevel"); they must include both a sufficient number of neighborhoods and a sufficient number of families and children within each to support adequate statistical tests of hypotheses; these data must include "direct measures of all the community characteristics relevant to how one or more theories explain the influence of neighborhoods on the developing child" This will include information on: infrastructure, housing characteristics, conditions of homes and open space, neighborhood institutions (police, social welfare, public health, library facilities), indigenous institutions (business, churches, community centers), people's perceptions of these institutions, neighborhood social organization, patterns of and reasons for mobility, and measures of children's acquisition of "social capital."

-- mount a substantial effort to "validate" the indicators that we have, as all sources of neighborhood data--whether from administrative records or surveys our data are full of inaccuracies and biases

-- engage community residents and leaders, and local and state administrative agencies in indicator development

-- link together all of these community indicators into a national system of such indicators

While the exercise of listing all of the possible attributes of neighborhood environment that might conceivably convey differences in the well-being of children is exhilarating and enlightening, they will also be frustrating. The lists serve as both a "counsel of perfection" and a "counsel of despair" unless they are guided by some organizing principles that can help us sort the important and attainable of them from the marginal and ephemeral. While Burton Singer's discussion gave us a start at organizing principles, we did not spend much of our time laying out criteria for choosing among the extensive lists. Moreover, constructing such "wish lists" is ultimately futile, unless the exercise meets head on the constraints of resources and budgets; after all, the entire GDP--or even the much smaller federal budget--is not available for data collection, verification, assembly, and research. While this is too bad, it is also true.

Although, like the rest of you, I do research on children's well-being and its determinants--and, hence, am regularly frustrated by the lack of available or usable data on children's attainments or their determinants--I am also an economist, and even worse, a benefit-cost analyst. I feel obliged, therefore, to bring the inevitable "cold shower" of resource constraints and trade-offs to this discussion. I will attempt to offer this shower in a way that will, hopefully, help us to make the efficient choices among the numerous options that have been set before us.

To do this, let me first set out the steps necessary to subject our exercise to the rigors of a benefit-cost framework. They might look something like this:

1. Specify the objectives to be attained.

2. Measure the "social benefits" (maybe, even, calibrated in dollar terms) which derive from each objective, so that they can be traded off, one against another (or, barring this, find some way in which to say that some objectives are more important than others).

3. Identify the data collection, verification or analysis proposals that could contribute to the objectives--establish the domain among which choices will have to be made.

4. Determine the extent to which each proposal meets technical requirements.

5. Determine the extent to which each proposal contributes to each of these objectives (or to the single, monetarily denominated overall objective).

6. Measure the cost of each proposal, so that the resources used from the limited budget can be compared across the proposals.

7. Identify those proposals that contribute the most per dollar of cost to each of the objectives, or to the overall monetary measure of benefits.

In the remainder of my comments, I will discuss each of these points, indicating how applying this framework could be of help to us in deciding how best to proceed. First, however, let me note that I fully realize that performing each of these steps is clearly not feasible, and to attempt to attain them would require as much of the nation's GDP as the set of indicator proposals that we have on the table. Nevertheless, as a way of thinking about the problem, this framework will be helpful; hence, I persist.

Specify Objectives:

Consider, first, the objectives that participants have suggested be established to guide our choice of indicators on which to collect data.[3] Here is the list that I have found--our indicators of children's well-being should be able to:

1.   To track the nation's progress--or performance--over time in a variety of dimensions

2.   To enable comparisons among important social groups or regions

3.   To promote the public acceptance of a number of social objectives, or to influence the public's thinking

4.   To set national standards

5.   To serve as a basis for planning and targeting interventions

6.   To facilitate and contribute to basic research on the determinants of children's attainments

In addition, because any indicators on which we would regularly collect data could have potentially adverse side effects, we should choose indicators that would not:

7.   Encourage simplistic approaches to very complex processes and problems

8.   Detract from realization of spatial or group concentrations of problems

9.   Encourage a punitive posture toward children (as we adults project values that we don't apply to ourselves onto our children)

10.   Distract from our accomplishments, and the real attainments of our children

11.   Encourage measures to correct the problem, rather than prevention measures

Determining the Social Benefits Deriving from Attaining Objectives:

Clearly all of these "outputs" of improved children's indicators are relevant to attaining a better society--that is, to increasing social well-being. Yet, at our conference, the goals implicit in the drive for more, and better, data have not been clearly spelled out. It goes almost without mentioning that the social value of increments in the attainment of any single goal--in monetary units or any other metric--has not been thought through. Even more serious, we have failed to specify the relative importance among the goals, or even to identify the trade-offs among them. These assessments are essential if we are to make good decisions--they are the second step.

Establish the Domain of Options:

Given that we haven't done so well in implementing the first and second steps in a benefit-cost appraisal, how about the third step--establishing the domain of data collection proposals that might contribute to the social objectives. In this regard, as I have indicated, we have succeeded beyond our wildest dreams--we have an "extravaganza" of proposals on our table. I am sure that a very cursory count would come up with a

---

[3]I have gleaned these objectives by either lifting them directly from the papers, or by hearing them during our discussions.

couple of hundreds of them--although Greg Duncan limited himself to the FAB FIVE, Frank Furstenberg referred to our FAB FIVE THOUSAND. I am reminded of the "95th"--the elegant restaurant at the top of the John Hancock building in Chicago; only the brunch tables at the 95th would contain more delicious items than the catalogue we have assembled.

Establishing Technical Criteria:

We have also done pretty well in establishing a list of the technical criteria by which to judge any proposal--the first element in the fourth step. Kris Moore's dozen (or is it 13) is a good start, but to them I would add several more that were mentioned in the papers or by participants. The full list would look like the following:

Kris Moore's list

--comprehensive (universal) coverage
--positive outcomes
--clearly defined and understandable
--common interpretation across people
--consistency and stability over time
--forward looking; anticipatory
--rigorous methods; reliable and valid
--geographically detailed
--susceptible to adjustment for population size and demographic composition and trends
--cost-efficient; available at "reasonable" cost
--reflective of important social goals; allows assessment of "social performance"

Additional Criteria

--objective--free of norms; not subject to ideological views of analyst
--consistency across groups
--capable of being reliably measured
--available on a timely basis
--critical importance to some aspect of children's well-being
--causally related to other indicators
--relates to an aspect of well-being that is subject to policy intervention
--amenable to causal analysis or disaggregation
--exogenous with respect to other indicators
--sufficient variability across time, groups or place
--available for international comparisons
--reflective of complexity of question
--based on accurate underlying theory

But, while we have established numerous technical criteria, we have failed to realize that no indicator proposal will score well on all of them, and hence we have given ourselves but little guidance on how to establish some overall "technical rating" to be attached to any proposal. As a result, we are rather "at sea" when it comes to trading off gains with respect to the extent that an indicator proposal leads to attainment of one of the criteria, against that proposal's shortfalls in attaining another. Perhaps of more concern, we have established but little agreement on the overall extent to which any particular proposal meets the technical requirements or criteria, and hence but little agreement on the relative rankings of the proposals on this limited standard.

<u>Measuring the Contributions of Candidate Proposals to Objectives:</u>

If we were able to make progress on this "technical requirements standard," we would be ready for the next step--among those proposals that pass the technical standard, how does each proposal contribute to each of the objectives that have been identified (or conceivably to the overall monetarily denominated social objective)? In fact, we have done very little by way of relating our hundreds of proposals to the objectives that we have set forth. This is a crucial step in making an informed decision; this step will have to wait until the next conference.

<u>Measuring Costs:</u>

So far, all of this relates to goals, technical requirements, and proposals. The next step is where the "rub" really begins--what are the costs of each of the proposals that we have on our table. Like choices on the tables at the 95th, each proposal exhausts some of our stomach's capacity--and apart from that, each may cost real resources--hence, each bite carries with it some opportunity cost.

While "costing out" each proposal might seem among our easier tasks, it isn't. First, the specifics of each proposal must be laid out--detail, groups, areas, sample size, administrative offices involved, etc.--and it must be specified whether the proposal involves improving the accuracy of existing statistics or developing new information. Then, the costs of implementing the proposal can at least be thoughtfully considered. But even then, the nature of "costs" can be complex, and difficult to understand. While the dollar costs of implementing a new longitudinal survey might be estimated, the implicit costs of adding to (or modifying) an existing survey are also relevant. For example, as all survey researchers with whom I am familiar will be quick to remind us, adding questions or modules to any existing survey implies displacing some questions or modules that are now a part of the survey. When gathering new data means sacrificing existing series, real opportunity costs are involved, and they are likely to be more difficult to measure or even discern than the dollar costs of the resources necessary to gather new data.

<u>Choosing the Most Cost-Beneficial Proposals:</u>

Only if we have followed these steps will be able to reliably undertake the final step of the required analysis--choosing those indicator proposals that both fit into our limited budget and maximize the contributions to the objectives for this enterprise that we have stipulated. And, it must be emphasized, that is the ultimate purpose of our meeting together. We have left ourselves a very long way from this "holy grail."

While I hate to be the representative of the "dismal science" to carry this bad news, I would emphasize that its basic message is essential. While we might feel good by observing the set table at the 95th, we had better know well our capacities, our budgets, our tastes, and the extent to which each of these delicacies absorb our capacity and our budget, and the way that each of them interact with the others. So far, we have only seen the "smorgasbord" set; next comes the difficult job of evaluation, and decision. Those tasks can be the subject of a third conference.

In concluding, I would like to leave you with three thoughts.

First, I would offer a suggestion to the conference organizers and volume editors. Implicit in the several papers at the conference are two quite different perspectives. One perspective is aimed at identifying "thermometer-type" indicators that could serve as the basis for regular reports of trends in children's well-being. The other perspective sought to identify the data and variables necessary for researchers to improve their analysis of the determinants of children's success, and the process by which quality children are produced. These two approaches are quite distinct in terms of their purposes, the standards that are applied, and their costs. In my view, a first step would be to distinguish--and segregate--these quite different proposals.

121

Second, I would like to suggest a "FAB ONE"--a proposal for children's indicators that could be taken immediately and at low cost. Unless I am quite wrong, I believe that within 6 weeks after every March Current Population Survey we could report a wide variety of children's indicators that would be:

--annual
--reliable
--highly visible
--uniform
--capable of disaggregation

These indicators would include:

--percentage of children living in poor families
--percentage of children living with one parent
--percentage of children living with an unemployed parent
--percentage of children living with a jobless and ill parent
--percentage of children living in a family on welfare

In my view, the regular publication of such simple indicators would--like the nation's unemployment rate or the prime rate or the poverty rate--serve a valuable first step in assembling regular children's indicator reports.

One final point derives from reflecting on those institutions that no longer seem to work in American society, and the difficulty of government in replacing them. The task of replacing families, churches and neighborhoods by government is an enormous one. I am struck by how difficult and expensive it is to bring a young person, a child, to a position, in which "work will work." I believe that an effort to accurately measure the full cost of such efforts would be instructive and valuable. In a very real sense an estimate of this cost is a children's indicator. My sense is that our own personal experience gives some insight into the magnitude of these costs. How do we do it for our kids? Well, first we give them lots of education with monitoring and advice and expectations and parental participation in schools. Then, when they finish their schooling, we support them for a time while they get their heads together. Sometimes they engage in job search, sometimes they ski, sometimes they travel. Following this, we actively and in a one-on-one relationship, help them with job search. We help them prepare a resume, we put them into touch with friends and acquaintances, we help them to prepare for job interviews--all so they can find their own special niche in the world of work. Finally, we often support them in moving to another location, often far from our home if that is where the best opportunity for them is. All of these things are enormously expensive in terms of both time and other forgone opportunities. It would do well for this society to have to confront head-on the magnitude of these costs.

The main lesson, I fear, is that doing this effectively is costly, very costly. There is no way to do it on the cheap. The realization of this truth makes more distressing our talk of making welfare recipients self-sufficient with a reform that will not violate budget neutrality.

Rapporteur's Comments for the
Conference on Indicators of Children's Well-Being
Sheldon Danziger, University of Michigan

In my view, its papers at this conference raised more questions than they answered. As a result, my remarks will take the form of a set of questions.

1.   <u>What Is The Question? What Goals Should Come Out of This Conference?</u>

Is the purpose to gather as <u>many</u> indicators as possible? Or is it to identify a <u>small number of key</u> indicators which are the best predictors of those childrens' outcomes that we care most about? If it is the latter, should we target data-gathering resources on fewer indicators and make certain that we have enough geographic detail; enough race/ethnic detail, etc.? Should we worry more about getting indicators of the <u>causes</u> of problems of children or the indicators of the <u>consequences</u> of these problems?

Do we need additional research to answer these questions and tell us what indicators we need? Or, are we now prevented from doing important research by not having enough indicators? Frank Furstenberg has rejected the view that our problem is simply one of insufficient data. He tells us that we need to devote much more attention to trying to <u>understand</u> the processes that determine child outcomes. That is, before we go out and gather a lot more indicators at the census tract level, we should decide whether we really think that tracts proxy neighborhoods and thus are a relevant universe of analysis.

I take as my rapporteur's task the following charge--if I had some money to invest in studying children's well-being, where would I spend it, based on what I have heard at the conference over the last two days and on what the authors have written in their papers?

2.   <u>Why Should We Care about Indicators of Child Well-Being?</u>

What is unique about child indicators? Are there any indicators for children that truly differ from those at other points in the life-cycle? Or should the indicator be the same, but we should care more about a problem for children because they are dependent and because the effects of the problem can be long-lasting? For example, is there a difference in measuring child poverty vs. poverty among the elderly or in measuring domestic violence vs. child abuse?

<u>The Primacy of Poverty</u>

Should child poverty be the key economic indicator? Is it a good enough proxy for other dimensions of childrens' well-being? What about indicators such as percentage of children who are not covered by health insurance, or the percentage of children who live with unemployed or jobless parents? Do we already have enough data? Can we get most of what we want by making relatively minor changes in the indicators we currently gather? I'm not convinced that the papers, taken as a whole, gave me the answers I seek. Each author seems to have his/her favorite questions and favorite data gathering needs.

3.   <u>Beware of the Mean</u>

In a world of rising inequality both within groups and between groups, indicators of central tendency become less helpful since the last two decades have been ones of rising inequality, this suggests that we need to pay more attention to the distributions of our indicators. For example, we need to know both the mean and the variance of test scores. On some indicators, there has been no change on average in the past two decades in the well-being of children. But while the mean or median has been constant, the distribution has changed dramatically--some children have done very well and others have done very badly.

4.   Beware of Indicators That Do Not Indicate What Many Think They Indicate

Some of the papers teach us that too much data can be bad for our understanding, especially if those data are not drawn from random samples of children. This is particularly a problem with measures based on administrative records. For example, we do not know if child well-being is increased or decreased if we get an increase in the welfare rolls or the foster care rolls and all we have are administrative records. In this case, we cannot distinguish between two opposite situations--(a) The caseloads may have grown solely because people who previously had a problem were not being aided at all by the system. In this case, growth indicates that the system has become more effective in serving its intended caseload. (b) The case loading may have grown because the number of people with the problem that the service addresses has increased. In this case, the problem has worsened but the service delivery system has remained fixed.

Gary Sandefur goes further and warns us that some popular indicators are not indicators at all. For example, the public considers trends in the percentage of children born out-of-wedlock and the percentage living in mother-only families as indicators of the breakdown of the family. Some, such as Charles Murray, might go even further and argue that these childbearing and family trends represent a threat to civilization as we know it. Sandefur argues that these are not direct indicators of child well-being. Sandefur offers healthy/unhealthy child as a direct indicator and others offer educational attainment because these measures directly distinguish between individual children. Sandefur's definition seems to imply that child poverty (my favorite indicator) is also not a direct indicator because it is not necessarily the case that a child in a poor family is doing worse than a child in a nonpoor family. I would disagree with Sandefur, however. I would point the recent book by Sara McLanahan and Sandefur, which says that in addition to poverty, family structure is one of the most important predictions of a child's outcomes as a young adult. Even if we label both child poverty and family structure as indirect measures, they are more important, in my view, than most of the other indicators we have discussed.

5.   Is the Problem a Lack of Indicators or a Lack of Concern about the Indicators?

The Miringoffs lament that the government does not release information on social indicators on as timely a basis as it does for economic indicators. Nonetheless, after two days at this conference I am overwhelmed by the amount of information we do have. We have, for example, a very large array of child health indicators. I do not think it would change public opinion or public policy if these indicators were made available on a quarterly or monthly basis. The data we have demonstrates that child health in America is not as good as it should be. This has not caused us as a nation to move quickly to improve child health in the way that the Federal Reserve has just moved quickly to raise interest rates to reduce the fear of inflation in the bond market.

In this regard, I interpret the situation NOT as the Miringoffs do. They suggest that we think differently about the well-being of children than we do about the well-being of the economy because we do not have timely adequate data. I argue the reverse. That is, because we have fundamentally different concerns about the well-being of children than we do about the well-being of the economy, we collect data differently. If Americans were to suddenly have a change of heart, and think like the Swedes, we would find that we have plenty of data on which to base changes in child health policies.

Hugh Heclo, in his essay "Poverty Politics," in Confronting Poverty: Prescriptions for Change, asks why antipoverty policy is so problematic. His lessons in the overall poverty context are relevant for those of us at this conference who view a renewed interest in child indicators as a way to further antipoverty policies in a variety of health, education, and income support areas. As I read his quote, you should insert "children" where he says "the poor."

> At least three basic facts shape everything else that might be said about the politics of poverty policy. The first is that poor people do not have much power. Second, America's poverty agenda is now inseparable from its racial debate. Finally, antipoverty efforts are bound up with the state of the economy. . . In economic good times it is politically easier to feel generous. . . But the poor can also appear more aberrant, and fewer people may identify with their situation. In economic hard times more people may feel their economic situation

124

99

precarious . . . But antipoverty efforts also become harder to pay for . . . Economic conditions offer one simple shortcut through the politics of poverty (pp. 397-398).

The recent elections are consistent with Heclo's conclusion and suggest to me why we are not likely to get more antipoverty policies or more children's policies no matter how many indicators of child well-being that we gather. The past two decades have been marked by slow economic growth and rising poverty and inequality. Married-couple families have managed to do better than others because they had the ability to send an extra earner into the labor force or to have an earner work longer hours. But married-couple families on average have not fared well, certainly not relative to what they expected to have, and certainly not relative to the kind of income growth their parents experienced at similar points in the life cycle. There is no longer much more room for additional work in married-couple families. So these families seem to have decided, "Give us a middle-class tax break and pay for it by cutting spending on social programs." They probably have not realized that many of the program cuts will affect programs that benefit them—such as subsidies for higher education. They do not seem to be troubled by the prospect that the spending cuts will hurt other people's children, especially children in mother-only families and minority children. They do not take the long view and conclude that structural problems related to a changing economy are at the core of their own economic problems. Rather they blame the government for their economic problems and view social welfare programs not as offsetting the hardship generated for millions in the labor market but as using their tax money to support nonworking welfare recipients. They go on to blame government and the behavior of other parents for most of the social problems that concern them—crime, out-of-wedlock childbearing, poor health of children, etc. Heclo's conclusion is not that we have a paucity of indicators of child well-being, but that we have a paucity of social concern.