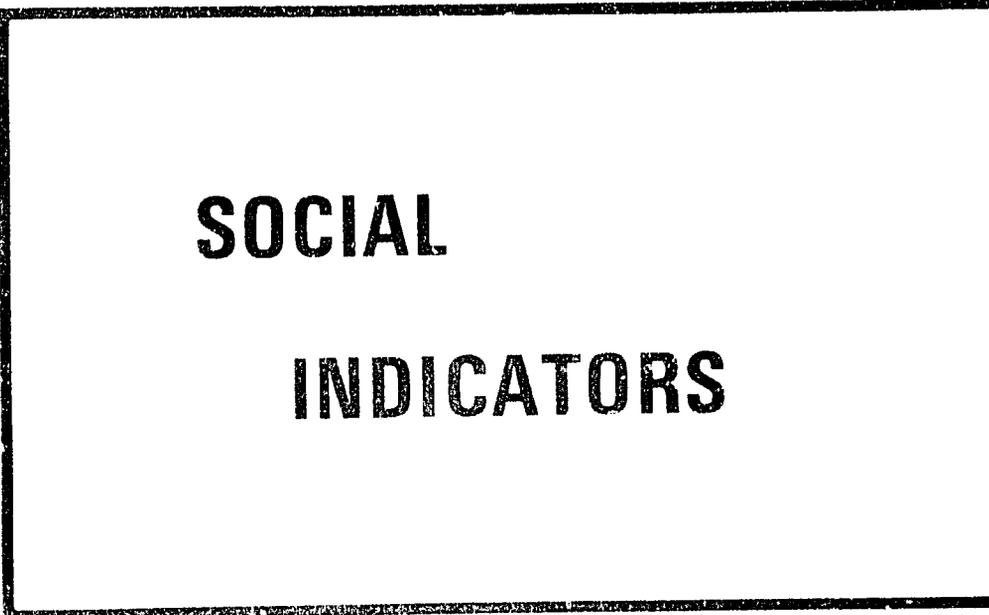


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TECHNICAL ASSISTANCE METHODOLOGY NO.2

DECEMBER 15, 1972



SOCIAL INDICATORS

A Selected List of References for A.I.D. Technicians

Agency for International Development
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*Distributed as a part of Attachment A of AIDFO CIRCULAR A 46, Jan. 8, 1969.

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A Selected List of References for A.I.D. Technicians

**Prepared by
Technical Assistance Methodology Division
Bureau for Technical Assistance
in cooperation with
A.I.D. Reference Center**

**Agency for International Development
Department of State
Washington, D.C. 20523**

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INTRODUCTION

Background

Social indicators are measurements, usually expressed as statistics, used to evaluate various aspects of the quality of life in a society. While there is no precise specification for the term "social indicator" or for the related concepts of "social accounting," "social reporting" and "monitoring social change," it is generally agreed that if statistics are used, they should be time-series allowing comparison over extended periods, and should be capable of aggregation or disaggregation. Social indicators can help in measuring the social good or the social ills which development brings to countries and to individuals affected by external technical assistance programs. Interest in social accounting is gaining everywhere and planners, policy makers and political leaders are increasingly mindful of tools of this type.

In this bibliography the main focus is on the growing professional literature on this subject. The materials dealing mainly with conceptual and theoretical analyses are grouped in Part I. A number of listings dealing in a general way with social indicators in development are included as Part II. The listings in Part I are in the form of abstracts giving somewhat more of the substance of the materials, while those in Part II are generally in the form of shorter descriptive annotations. Part III Additional References is broader and more general in coverage than Parts I and II and contains only identification information.

Acknowledgments

The subject index and the abstracts in Part I of this bibliography, except as indicated, were prepared by Jeremy B. Taylor while he was working as an AID graduate work/study intern and completing his Master's thesis for the Department of Regional and Community Affairs of the University of Missouri. Mr. Taylor is currently on the staff of The Urban Institute, Washington, D.C.

The annotated listings in Part II (except the summaries from the *Journal of Development Studies*) and all the entries in Part III were supplied to the Bureau for Technical Assistance by the Social Indicators Research Group of the Department of Sociology and Anthropology of Iowa State University. This Group is currently working on a major project on indicators of social development under an AID contract. Permission to use some of the materials appearing in a publication developed by the Research Group for the Elsevier Publishing Co. of Amsterdam, The Netherlands, was granted by these two organizations. The summaries of six articles on social indicators appearing in the *Journal of Development Studies* for April 1972 were included in this bibliography by permission of the publisher, Frank Cass and Company, Ltd., London. The Bureau for Technical Assistance wishes to express its appreciation to these organizations for their cooperation.

The Bureau also wishes to thank Dr. Leslie D. Wilcox, of the staff of the Social Indicators Research Group and of the Department of Sociology and Anthropology of Iowa State University, for advisory services relating to the development of this bibliography, for reviewing the final manuscript, and for making the arrangements with the Elsevier Publishing Co. for use of some of the materials prepared by the Research Group.

Guides to the Use of This Bibliography

Staff members who wish to examine introductory materials on the problems of measuring social change and development are referred to:

- (a) McGranahan, Donald V. et al., *Contents and Measurement of Socio-Economic Development: An Empirical Enquiry*. See Item No. 9.
- (b) Sheldon, Eleanor Bernert and Wilbert E. Moore (eds.), *Indicators of Social Change; Concepts and Measurement*. See Item No. 16.
- (c) Russett, Bruce M. et al., *World Handbook of Political and Social Indicators*. See Item No. 14.
- (d) Blaisdell, Thomas C., Jr., "Problems of Evaluating the Effectiveness of Development Measures," in *Economic Development and Cultural Change*, Vol. 2, Jan. 1954, p. 286-297. See Item No. 24.

Individuals interested in reading materials on definitions of social indicators and related concepts are referred to:

- (a) Land, Kenneth C., "On the Definition of Social Indicators," in *The American Sociologist*, Vol. VI, Nov. 1971, p. 322-325. See Item No. 7.
- (b) Olson, Mancur, Jr., "Social Indicators and Social Accounts," in *Socio Economic Planning Science*, Vol. 2, April 1969, p. 335-346. See Item No. 12.
- (c) Sheldon, Eleanor Bernert and Howard E. Freeman, "Notes on Social Indicators: Promises and Potential," in *Policy Sciences*, Vol. I, April 1970, p. 97-112. See Item No. 15.

For background reading on the growth of the social indicator movement and on developments in this field, the following publications are suggested:

- (a) Gross, Bertram N. and Michael Springer, "New Goals for Social Information," in *Annals of the American Academy of Political and Social Science*, Vol. 373, Sept. 1967, p. 208-212. See Item No. 6.

- (b) Springer, Michael, "Social Indicators, Reports and Accounts: Toward the Management of Society," in *Annals of the American Academy of Political and Social Science*, Vol. 388, March 1970, p. 1-13. See Item No. 17.

Additional Resources

Individuals who wish to read more widely in this field are referred to the comprehensive bibliography prepared by members of the staff of the Social Indicators Research Group of Iowa State University:

Wilcox, Leslie D., Ralph M. Brooks, George M. Beal and Gerald E. Klonglan, *Social Indicators and Societal Monitoring: An Annotated Bibliography*. 1972, 446 p. Published by the Elsevier Publishing Co., P. O. Box 211, Amsterdam, The Netherlands. In the United States, orders should be addressed to Jossey-Bass, Inc., 615 Montgomery St., San Francisco, Calif. 94111. Price \$10.75. (See Item No. 43.)

This bibliography gives broad general coverage to the subject of social indicators and includes an introductory essay which gives an overview of the social indicator "movement." It contains a total of 1,118 listings, of which over 600 are annotated.

There are a number of articles listed in this AID bibliography which appear in Volume 371 (May 1967) and Volume 373 (September 1967) of the *Annals of the American Academy of Political and Social Science*. Both of these issues are devoted to a discussion of social goals and social indicators for American society. Copies may be ordered from the American Academy of Political and Social Science, 3937 Chestnut St., Philadelphia, Pa. 19104. Price for each volume, \$3.00.

The British professional publication, *The Journal of Development Studies*, devoted a special issue (April 1972) to social indicators under the title, "Measuring Development." It deals with social indicators in less-developed countries in the period since World War II. Six articles in this issue have been listed in this bibliography (see Item Nos. 2, 20, 22, 29, 36, 37). Copies of this issue are \$4.20 each (dollar checks accepted) and may be ordered from:

Frank Cass and Company, Ltd.
67 Great Russell St.
London WC1B 3BT, England

HOW TO OBTAIN DOCUMENTS

In most publications in the AID Bibliography Series, attention is given mainly to AID-generated materials. In the present bibliography, all of the materials listed are from commercial sources, international agencies, the U.S. Government, or other national sources. All listed materials must be obtained directly from the commercial publisher, the originating agency or, in one or two cases, from the U.S. Government Printing Office.

In some of the listings in Parts I and II, a catalog number of the U.S. State Department Library or the AID Reference Center is given. In these cases, the publication may be borrowed or used in the Library, Room 3239 Main State, or in the Reference Center, Room 1656 Main State.

A.I.D. personnel at Missions may borrow materials by addressing a 2 Way-Memo to the A.I.D. Reference Center or to the State Department Library stating the appropriate reference number and title of the document requested. However, loan to overseas personnel of material in the Library's collection is restricted, but, in general, material not in use in Washington may be lent to A.I.D. personnel assigned overseas.

ARRANGEMENT OF LISTINGS

The items in this bibliography are listed alphabetically within each part by the author's last name or by the name of the originating institution if there is no individual author. The types of materials listed in each of the three parts of the bibliography are described in the first section of the Introduction.

ABBREVIATIONS

- AID - Agency for International Development, present United States overseas technical assistance agency.
- ARC - the AID Reference Center located in Room 1656 Main State Building, near the 21st St. entrance.

PART I BASIC REFERENCES, CONCEPTUAL AND THEORETICAL

1. Drewnowski, Jan, "The Practical Significance of Social Information," in *Annals of the American Academy of Political and Social Science*, Vol. 393, Jan. 1971, p. 82-91.
ARC Catalog No. 301.245, A512.

This article attempts to answer the questions, "What kind of information on social matters is most important, and why?" There are two problems in development which cannot be addressed satisfactorily without adequate social information: (a) the meaningful assessment of development results, and (b) the provision of social content for development planning. The practice of using economic variables for these purposes only confuses the issue; thus the author's emphasis on social indicators. These fall into four classes; the first and second refer to the welfare of the population, while the third and fourth refer to the process of development:

- a. Indicators for the flow of welfare which measure the flow of goods and services the population receives and the conditions under which it lives and works. The indicators are expressed in their specific units (caloric intake, for example) per unit of time.
- b. Indicators of the state of welfare which measure the condition in which a population finds itself at a given point in time. Where the indicators for the flow of welfare measure what a population receives, the state of welfare indicators refer to the characteristics the population evidences (e.g., how many literates, how many college graduates, physical fitness, etc.).
- c. Indicators of the welfare effect, which are ratios of the movements of welfare-flow indicators to the movements of economic resources which were or can be used to generate that welfare.
- d. Indicators of the productivity effect which are coefficients of changes in productivity resulting from improved welfare conditions. Thus these indicators comprise social factors of production in addition to the traditional ones of land, labor and capital.

The article focuses upon the indicators for the flow of welfare with particular attention paid to the methodology of their construction and the problems of quantification, scaling and distribution.

2. Drewnowski, Jan, "Social Indicators and Welfare Measurement: Remarks on Methodology," in *Journal of Development Studies*, Vol. 8, No. 3, April 1972, p. 77-90.
ARC Catalog No. 309.2, F828.

Summary published with article: "The impossibility of measuring social conditions as one overall aggregate has to be recognized: it is only the three distinct 'aspects' of social conditions which can be considered conceptually measurable. They are: (1) demography, (2) social relations and (3) welfare. Each of them must be measured in its own way. This paper is concerned with elaborating a methodology of measuring welfare by means of indicators and indices, based on observable and measurable facts. Welfare indices are supposed to serve not only for assessing the results of development but also as targets for development plans."

3. Etzioni, Amitai and Edward W. Lehman, "Some Dangers in 'Valid' Social Measurements," in *Annals of the American Academy of Political and Social Science*, Vol. 373, Sept. 1967, p. 1-15.
U.S. Department of State Library No. H1.A4, V.373.
ARC Catalog No. 301.245, A512.

The article is a preliminary statement of the difficulties that social measurement may create for societal planning. Three problems associated with questions of internal validity are studied:

- a. Fractional measurement: The dysfunctions stemming from lack of coincidence between a social concept and its operational definition are considered. In the social sciences, the measurement of most concepts requires the use of more than one indicator e.g., family stability, a concept comprising a number of variables, each of which must be specified, and requiring one or more indicators for each variable. Erroneous accounting leads to faulty planning when it is assumed that a concept is measured in its entirety but only a fraction of it is measured in fact. The authors conclude that "any measurement of a social science concept that relies on a single indicator should be viewed as dubious." Any adequate measurement must contain indicators of both qualitative and quantitative dimensions.
- b. Indirect measurement: Generally economic statistics are merely by-products or results of business and government activities and therefore often do not measure, describe or record the exact phenomena of interest to the economist, and this causes distortions in societal analysis.
- c. The measurement of collective attributes: Two types of dysfunctions resulting from the imprecise measurement of the states of social systems are discussed. One type may occur when formal social units (countries, church parishes, etc.) are used as if they were meaningful real social units. The second occurs when aggregated data (data based on the statistical manipulation of attributes of the members or of attributes of their relationships) are used to measure collective attributes rather than global measures (data characterizing the collectivity itself, apart from its members).

Since all social measurements face the problem of internal validity, persons using those measurements should be alert to two further problems which may emerge: (a) arriving at invalid conclusions which become the basis for erroneous policy decisions, and (b) ignoring those dimensions and indicators of a concept that are most susceptible to social manipulation.

4. Galnoor, Itzhak, "Social Information for What?" in *Annals of the American Academy of Political and Social Science*, Vol. 393, Jan. 1971, p. 1-19.
U.S. Department of State Library No. H1.A4, V.393.
ARC Catalog No. 301.245, A512.

Abstract as published with the article: "Proposals for using 'social indicators' and 'social accounting' and for initiating 'social reports' by governments have been put forth in the United States and certain European countries. These proposals are closely related to the emergence of explosive social problems in the economically developed countries. But, at the same time, there has been also growing dissatisfaction in economically developing countries with planning based on narrowly construed economic models and with the conspicuous absence of the adjective 'social' in the definition of 'development.' If both developed and developing countries are now more concerned with the social aspects of life, then perhaps social information can be useful in both cases. A cluster of ideas deeply rooted in a certain situation cannot be easily transplanted. The differences between the social problems of a 'developed' and a 'developing' situation are so great that entirely different kinds of social information are needed in each. Nevertheless, certain ideas contained in the various social information proposals could prove to be extremely useful for the specific problems of developing countries."

5. Gross, Bertram M. and Michael Springer, "A New Orientation in American Government," in *Annals of the American Academy of Political and Social Science*, Vol. 371, May 1967, p. 1-19.
U.S. Department of State Library No. H1.A4, V.371.
ARC Catalog No. 301.245, A512.

Abstract as published with article: "The variety of approaches and subjects in this volume reflects the information explosion in social indicators. Current expansion of social indicator activity has been given impetus by: (1) the growing awareness of the contributions of economic information; (2) the implementation of the planning-programming-budgeting system within the Federal Government; and (3) specific proposals for increased utilization of social information, such as the Technology Commission's* call for social accounting, annual Social Reports of the President, and a 'Full Opportunity and Social Accounting Act.' Normative concerns require that our 'data system' remain unsystematic, with promotion of both multiple sources and dissonance.

*See *Technology and the American Economy*, 1966, Item No. 10 in this bibliography.

Furthermore, the development and use of social information should not be thought of solely in executive agency terms—there is a creative role for Congress in this area.”

6. Gross, Bertram M. and Michael Springer, “New Goals for Social Information,” in *Annals of the American Academy of Political and Social Science*, Vol. 373, Sept. 1967, p. 208-212.
U.S. Department of State Library No. H1.A4, V.373.
ARC Catalog No. 301.245, A512.

This article, an introduction to the special issue of the *Annals* entitled “Social Goals and Indicators for American Society: II,” is a plea for developing new concepts and information to meet the changed needs of U.S. society. The authors assert that “Executive officials and members of Congress alike are misled by inadequate interpretations of bad information based on obsolete concepts and inadequate research, and collected by underfed and overlobbied statistical agencies.” In the authors’ view, this has created an intelligence gap which obstructs rational consideration of public and private policy choices. The authors seek to narrow this gap by concentrating on conceptual innovations that permit the improved use of data presently available, as well as on means of obtaining new forms of quantitative and qualitative social information. The conceptual suggestions made by the authors are summarized in a table found on pages 210-212.

7. Land, Kenneth C., “On the Definition of Social Indicators,” in *American Sociologist*, Vol. VI, Nov. 1971, p. 322-325.

The author reviews some recent criticisms of and claims for social indicators. The review leads to a consideration of defining criteria for social indicators. The author concludes that membership as a parameter or variable in a social systems model constitutes such a criterion. Specifically, the author proposes that the term “social indicators” be used to refer to social statistics that:

- a. Are components of a social system model (including sociopsychological, economic, demographic and ecological factors) or of some particular segment or process thereof;
- b. Can be collected and analyzed at various times and accumulated into a time-series;
- c. Can be aggregated or disaggregated to levels appropriate to the specifications of the model.

The author concludes that social indicators must be either input or output variables in a sociological model of a social system or some segment thereof.

This implies the need to develop models of social institutions and processes related to health, education, the physical environment, income, poverty, welfare, public order, science, the arts, social participation, leisure, and so forth. Once this is accomplished, the equation systems governing the transformations of the inputs of the social institutions into outputs can be specified.

8. McGranahan, Donald V., "Analysis of Socio-Economic Development through a System of Indicators," in *Annals of the American Academy of Political and Social Science*, Vol. 393, Jan. 1971, p. 65-81.
U.S. Department of State Library No. H1.A4, V.393.
ARC Catalog No. 301.245, A512.

This paper is based on a research project of the United Nations Research Institute for Social Development (Geneva) entitled, "Contents and Measurement of Socio-Economic Development: An Empirical Enquiry." The full study has not yet been printed. It describes three different ways of approaching the relationship between development and levels of living:

- a. Development has been defined and measured in economic terms as "growth of the per capita GNP," and rising levels of living have been seen to result from such development and are perceived as its end purpose. This approach disregards social conditions.
- b. The "level of living factors" (health, education, nutrition) may be viewed as inputs of development, defined in monetary terms. Under this approach, these factors are defined as "human resources" or "human capital," whereas in the first conception they are often defined as "human welfare."
- c. Under this third approach, development comprises both economic and social elements, tending to change together as a complex. Economic factors and level of living factors (or social factors more broadly speaking) are seen as interdependent aspects of an evolving system which at the macro level cannot be broken down into inputs (causes) and outputs (effects).

This paper favors the third approach, implying that the per capita GNP cannot be considered as an adequate general measure of development since it does not properly cover social aspects. Quantitative analysis of socioeconomic development is currently severely limited by the inadequacy of the data. Important political, administrative and psychological factors, as well as various social and economic factors, cannot be properly assessed. Available data are often unreliable. Nevertheless, by the use of techniques of analysis which make the most of available data and involve no assumptions about cause and effect, it is possible to gain a somewhat clearer idea of what happens in development, and thereby perhaps a better basis for understanding why development happens.

9. McGranahan, Donald V. et al., *Contents and Measurement of Socio-Economic Development: An Empirical Enquiry*. Report No. 70.10. 1970, 162 p. A non-sales publication of the United Nations Research Institute for Social Development, Geneva 10, Switzerland.

The report is an attempt at isolating indicators of social and economic change and development. It proposes a methodology for constructing a general index of development. Data were collected for 1960 from as many as 115 countries on a set of 73 developmental variables. While "the incompleteness and weakness of the basic quantitative data" are conceded by the authors, they point out that "much of the study may be more relevant in suggesting a methodology of analysis than in showing definitive results today." The 73 developmental variables were selected on the basis of earlier reports of the United Nations, as well as general works on social and economic problems concerned with development. The 73 variables are grouped under the following headings:

- | | |
|--------------------------|--|
| 1. Health and demography | 6. Transport and services |
| 2. Nutrition | 7. Agriculture |
| 3. Education | 8. Industry |
| 4. Housing | 9. Trade |
| 5. Communications | 10. General (i.e., GNP per capita,
investment per capita) |

10. National Commission on Technology, Automation and Economic Progress, *Technology and the American Economy*. Vol. 1, Feb. 1966, 115 p. Order from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price \$1.50.
U.S. Department of State Library No. HC110.T4U5.

The Commission's goals were to identify and assess the rate and impact of current and prospective technological change on production, employment, and human and community needs, and to recommend actions for private and public agencies with respect to technological change and its consequences. A number of recommendations are made for policy changes, both public and private, which would encourage adjustment to technological change and assist in attaining human and community needs. Regarding the latter, it is noted that while we have a system of indicators that measure national economic performance, we have no such system to measure national social performance. Therefore the following are recommended:

"In an effort to improve the means of public decision making, we propose that the government explore the creation of a system of social accounts which would indicate the social benefits and social costs of investment and services and thus reflect the true costs of a product . . .

“A system of social accounts, if it could be established, would give us a broader and more balanced reckoning of the meaning of social and economic progress and would move us toward measurement of the utilization of human resources in our society in four areas:

- “1. The measurement of social costs and net returns of economic innovations;
- “2. The measurement of social ills (e.g., crime, family disruption);
- “3. The creation of performance budgets in areas of defined social needs(e.g., housing, education);
- “4. Indicators of economic opportunity and mobility.

“Eventually, this might provide a balance sheet which could be useful in clarifying policy choices. It would allow us to record not only the gains of economic and social change but the costs as well, and to see how these costs are distributed and borne.”

The Commission's work is important to the social indicator movement from two perspectives:

- a. It was a renewed proposal for a system of social accounts, coming from an official body.
 - b. It developed three claims for social indicators that are echoed in later pleas for work in this area. These are (a) to evaluate specific programs, and (b) to develop a “balance sheet” in order (c) to help establish social policy.
11. Okun, Arthur, “Should GNP Measure Social Welfare?” in *Survey of Current Business*, Vol. VIII, No. 3, Part II, July 1971, p. 129-133.
U.S. Department of State Library No. HC101.A13.

The National Income and Product Accounts provide an integrated and invaluable body of information about the functioning of the nation's economy, particularly the gross national product (GNP). The basic criticism of GNP is that, even after correction for price and population change, it does not yield an unambiguous measure of national welfare. An increase in real GNP per capita does not necessarily mean that the nation is better off. Two solutions to this problem have been suggested: (a) GNP should be ignored; and (b) GNP should be adjusted so that it does measure social welfare. Both solutions are rejected. The national accounts were developed to measure market-oriented change based on the presence of price tags. Many things could change to make the nation better off without raising its real GNP as measured currently, e.g., peace, equality of opportunity, less violence and injustice in society, etc. To suggest

that GNP could measure social welfare is to imply that an appropriate price tag could be put on changes in these social factors from one year to the next. The article does not deny the critics' case in wanting to know more about social welfare; rather, it claims they underestimate the magnitude of the problem of believing that any one-dimensional summary like GNP could be redefined to handle it.

12. Olson, Mancur, Jr., "Social Indicators and Social Accounts," in *Socio-Economic Planning Science*, Vol. 2, April 1969, p. 335-346.

This article attempts to define more clearly the concepts of social indicators and social accounts. When taken together, the definitions suggest the author's approach to a better system of Federal statistics. To this end, he emphasizes that the term "social accounts" does not refer to a comprehensive social theory, illuminating complex cause-and-effect relationships of social life. They are simply a set of accounting identities. Social indicators are statistics which have two defining characteristics:

- a. They are measures of direct normative interest, i.e., welfare and its opposite.
- b. They fit into a systematic scheme of classification or aggregation.

They make possible a balanced assessment of socioeconomic progress or retrogression, as well as a disaggregated and detailed study of particular problems. Present social statistics are unsatisfactory for a number reasons:

- a. They do not present a true picture of how a nation is dealing with its problems.
- b. They limit the effectiveness of public policy.
- c. They are *ad hoc* and, therefore, not coherent.

From an examination of the U.S. National Income and Product Accounts (NIPA), the author concludes that aggregative measurements can be extraordinarily useful, but for purposes of "social" statistics it is difficult to find appropriate "weights," the equivalent to prices in the NIPA. There are some possibilities for useful aggregation over limited time periods, e.g., an index of the population's health and life expectancy, or of crime. But aggregation can only be carried so far, particularly so if the range of phenomena is quite broad. To compensate for this, it is suggested that a method of classification be employed to obtain a systematic set of measurements. A set of statistical categories with the following properties must be developed for such a classification:

- a. Each category is conceptually homogenous so that all of the phenomena in it are comparable and can be aggregated or represented by a single index or series of numbers.

- b. The set of categories must be mutually exhaustive.
- c. The categories must be mutually exclusive so that they do not answer any part of any single question more than once (leading to double-counting or over-weighting of some aspects of the program).

An illustrative set of categories meeting these requirements is:

- a. Socioeconomic status of minority groups.
- b. Current economic discrimination—the extent to which a person in a minority group fails to obtain the earnings he would have obtained had he the same qualifications he in fact has and had he been white.
- c. The degree of impairment—the extent to which social systems reduce a minority member's ability to achieve.
- d. Segregation—the extent to which the lives of the minority are lived separately or together with those of the majority.

Since rational policy demands cost and benefit estimates for public programs, the author feels it might be useful for data collection and policy analysis to develop a set of accounts that would facilitate or contain such estimates. These would be called "policy accounts," defined as "a table, starting with a social indicator, and including also estimates of the changes in the social indicator that could be expected to result from alternative levels of expenditure on the relevant public program. The monetary value the government or society would put on the changes in the social indicator could then be compared with the costs of obtaining that change."

13. Olson, Mancur, Jr., "The Plan and Purpose of a Social Report," in *The Public Interest*, No. 15, Spring 1969, p. 85-97.

The author's purpose is to set out explicitly the idea of social reporting, to explain what it would or would not contain, and to determine whether the development of social indicators and social reporting should be continued. Ideally, social indicators should measure what the national income statistics leave out. The function of the social report is to assess changes in the data generated by such indicators. National income statistics are a prototypical social indicator since they provide a measure of our level of national material well-being. However, for a social report we need information about the condition of our society, e.g., about how much children have learned—not about the time and money used for schooling. Such information is helpful in two ways:

- a. It gives different social problems appropriate degrees of visibility, and makes possible an informed decision regarding national priorities.
- b. By providing insight into how different measures of national well-being are changing, it may make possible a better evaluation of what particular public programs actually accomplish.

He concludes that social indicators and social reporting systems involve a broader application of the planning-programming-budgeting system, and need to be further developed. The selection of a social indicator means that an "explicit decision about a purpose of social policy has been made. The changes in the social indicator measure the extent to which that purpose is being achieved."

14. Russett, Bruce M. et al., *World Handbook of Political and Social Indicators*. 1964, 373 p. Yale University Press, 92A Yale Station, New Haven, Conn. 06520.
U.S. Department of State Library No. HN15.R8.

The handbook is a product of the Yale Political Data Program to develop information on comparative politics. It presents both data and analysis, and is directed to political scientists and to other social scientists interested in testing hypotheses about cross-national comparisons. The information presented in this volume was selected with reference to existing theories of international and comparative politics. Each of the data series represents an attempt to make operational a variable central to several important theories of political or social change. The data fall into four general categories:

- a. Primarily economic--explicit economic variables such as relative shares in Gross National Product, foreign trade, private consumption, gross capital formation, etc.
- b. Economic growth--including such indicators of social change as urbanization and the spread of mass media.
- c. Social and cultural--including economic data.
- d. Political--including some economic and social variables.

Part A contains quantitative data on 75 variables for 133 states and colonies. These variables fall into the following categories:

- | | |
|----------------------------|--------------------------------------|
| 1. Human resources | 6. Education |
| 2. Government and politics | 7. Family and social relations |
| 3. Communications | 8. Distribution of wealth and income |
| 4. Wealth | |
| 5. Health | 9. Religion |

Among the series are vital statistics, political data on voting, government budgets, military personnel, income and distribution, health conditions, etc. Part B represents a preliminary analysis of the data and indicates how they can be used to investigate a wide variety of political and social questions. For instance, the data can be used as a basis for correlations among political and social indices, changing relationships between variables, multifactor explanations of social change, and regionalism vs. universalism in comparing nations. Each series is preceded by an explanation regarding the source(s) of the data and the degree of error and/or adjustment for the errors included.

15. Sheldon, Eleanor Bernert and Howard E. Freeman, "Notes on Social Indicators: Promises and Potential," in *Policy Sciences*, Vol. 1, April 1970, p. 97-112.
U.S. Department of State Library No. HD38.P6.

Three benefits expected to come from developing a system of social indicators are the evaluation of special programs, the development of a balance sheet or system of social accounts comparable to the system of economic accounts, and the establishment of social goals and priorities. These expectations are unrealistic for the following reasons:

- a. The use of indicators for the evaluation of specific programs requires the ability to demonstrate statistically that programs measure the outcomes rather than uncontrolled variables.
- b. A system of social accounts cannot be developed without a social theory capable of defining the variables of a social system and the interrelationships among them.
- c. It is naive to maintain that social indicators establish correct priorities, or that by themselves they permit decisions on which programs to implement. Social goals and priorities are more dependent on national objectives and values than on assembled data.

The social indicator movement can contribute to the attainment of more reasonable goals, i.e., (1) improved descriptive reporting, (2) the analysis of social change, and (3) the prediction of future social events and social life.

16. Sheldon, Eleanor Bernert and Wilbert E. Moore (eds.), *Indicators of Social Change: Concepts and Measurement*. 1968, 804 p. The Russell Sage Foundation, 230 Park Ave., New York, N.Y. 10017

This book is a product of the Russell Sage Foundation's research project on "monitoring social change." It consists of essays which explore component parts of American society and how these are changing structurally. The editors'

chapter, "Monitoring Social Change in American Society," introduces the contributions and orientations of the other authors. The volume is primarily analytic and describes large-scale structural change in four major categories:

- a. The demographic base, giving an indication of aggregative population trends, and its changing composition and distribution.
- b. Major structural components, i.e., the distinct ways in which U.S. society produces goods, organizes its knowledge and technology, maintains order, etc.
- c. The distribution features of goods and services.
- d. The aggregated features of production, productivity, and the flow of goods and services to the consumer, providing more for everyone but not equally more for all.

With regard to the measurement of social change, the editors note the current problems of statistical systems: (1) problems of additivity—the non-availability of a common unit of measurement, and (2) problems of frequency—no *a priori* base for determining the optimal frequency of observation of any aspect of social behavior or function. Finally, the editors review some of the large-scale changes that have occurred in the structural, distributive and aggregative features of American society. The contributors to the volume examine the following:

- a. Firmer evidence of past trends and the factors underlying these trends.
 - b. A more judicious arrangement of data collected under existing statistical programs.
 - c. More frequent collection and more detailed tabulations of current statistical data, along with greater speed in public availability.
 - d. Periodically repeated surveys.
17. Springer, Michael, "Social Indicators, Reports and Accounts: Toward the Management of Society," in *Annals of the American Academy of Political and Social Science*, Vol. 388, March 1970, p. 1-13.
 U.S. Department of State Library No. H1.A4, V.388.
 ARC Catalog No. 301.245, A512.

The author's purpose is to analyze some of the basic elements essential for effective social reporting and to describe some of the conceptual approaches that are being suggested as a framework for social indicators and accounts. Scholars and government officials working on social accounting and reporting

are generally agreed as to the set of functions which these are eventually to perform:

- a. Analysis of social trends and change. This approach has been one of the primary interests of American sociologists, specifically the development of statistical series that can be correlated and projected into the future. However, such analyses are rooted in scholarly concerns and are, therefore, not directly applicable to the essentially political focus of social reporting.
- b. The analysis of national goals. This is the approach currently favored by certain departments of the Federal Government.
- c. Futurism. Two key thrusts that could have significant impact on social accounting and reporting are technological forecasting and the projection of alternative social futures.
- d. The new political economy. This is a new multidisciplinary field that focuses on the following questions:
 1. Composition of the public budget. Which goods are produced, in what quantities?
 2. What is the overall size of the public budget?
 3. How are budgetary choices made?
 4. Who gets how much of the benefits produced or distributed by government?
- e. Social-system theory. This is an attempt to develop models or principles which would help to order a wide variety of phenomena, and would take into account discernible regularities and interrelationships. It has been viewed as potentially capable of providing a useful framework for social accounting and reporting.

These approaches provide a rich and diverse base of concepts, models and methodologies for the development of systems of social accounts and reports. The writer concludes that proponents of social accounting and social reporting are urged on by one of two motives: (a) a sincere desire to bring about the implementation of some long-overdue social reforms, and (b) the hope that in the process of bringing about these reforms, their proponents will become a new political elite of technocratic managers. The author believes that social indicators and reports are ideas whose time has come because they are needed. He is concerned, however, that they "be developed with models of democracy as well as rational management, and rooted in a social science that has been developed to serve the needs of the poor, despised and unorganized, as well as the rich and powerful."

18. U.S. Department of Health, Education and Welfare, *Toward a Social Report*. 1969, 101 p. Order from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price 55 cents. U.S. Department of State Library No. HN58.U5.

This report is an attempt to develop a system of social statistics for purposes of measuring social change in the United States. Each chapter deals with a particular social indicator, accompanied by a defining question:

- a. Health and illness—Are we becoming healthier?
- b. Social mobility—How much opportunity is there?
- c. Our physical environment—Are conditions improving?
- d. Income and property—Are we better off?
- e. Public order and safety—What is the impact of crime on our lives?
- f. Learning, science and art—How much are they enriching society?
- g. Participation and alienation—What do we need to learn?

The volume is not a social report; rather it represents an attempt to look at several important areas and digest what is known about progress toward generally accepted goals in these areas. The work was handicapped by lack of appropriate statistics and measures of social change. An approach to the development of more comprehensive social indicators is outlined. Emphasis is placed on aggregative indices which would provide useful measures of social progress in areas of direct normative concern. The example given is a health index which would measure life expectancy and discount this with increases in the number of days that individuals are confined to bed at home and in public institutions. It is contended that many social indicators, based on such aggregative indices, could be developed relatively easily and without prohibitive expense.

19. Vestermark, S. D. (ed.), *Indicators of Social Vulnerability: Social Indicators in Civil Defense Planning and Evaluation*. Aug. 1968, 285 p. Published by Human Sciences Research, Inc., McLean, Va. 22101. Order from the National Technical Information Service, Springfield, Va. 22151. Price \$6.00.

The present movement throughout government to develop a system of social indicators for policy and planning purposes offers a number of promising prospects for increasing the relevance and effectiveness of civil defense planning and systems evaluation. Through the development and application of a system of social indicators, civil defense analysts can judge:

- a. The relevance and responsiveness of proposed systems to the structural features and social trends of American society.
- b. The undesired and desired impacts of systems, policies and plans in building as well as operating civil defense.

Civil defense planning requires indicators of varying ranges of analytic generality. Specific applications of social indicators are considered in the illustrative analysis of the burdens created by orphans surviving a nuclear attack and in the attempt to make operational concepts of post-attack recovery goals. There is also an inventory of the kinds of social data needed to develop indicators of the composition of the projected or actual states of the social inventory which influence civil defense during both its building and operating phases. The author's recommendations for developing social indicators for use in civil defense planning and systems evaluation are:

- a. To take notice of, and where possible exploit, the development of social indicators concepts, methods and procedures now occurring elsewhere in the U.S. Government.
- b. Social indicators needed for appraising the specific consequences of specific countermeasure systems and policies should be developed and applied on a pilot basis.
- c. Social indicators required to apply general value standards and recovery goals to concrete tasks of planning should be developed and applied on a pilot basis.
- d. The quantitative logic and dimensions of social indicators should be developed to the point where the information contained in them can be used in appraisals of economic costs and benefits of alternative civil defense policies and systems.
- e. Social data banks in support of the development and use of social indicators for civil defense planning and evaluation should be established. Initially such data banks would contain aggregate information concerning psychological traits and interaction patterns of individuals.
- f. In the various applications of social indicators, their utility in creating general social descriptions should be kept separate from their utility in making particular estimates of social vulnerabilities, resources, effects, and the state of the social inventory.

PART II SOCIAL INDICATORS AND DEVELOPMENT

20. Adelman, Irma and Cynthia Taft Morris, "The Measurement of Institutional Characteristics of Nations: Methodological Considerations," in *Journal of Development Studies*, Vol. 8, No. 3, April 1972, p. 111-135.
ARC Catalog No. 309.2, F828.

Summary published with article: "A major barrier to the quantitative investigation of interactions between economic and non-economic influences in economic development is the lack of adequate indicators of institutional traits of nations. Our purpose in this paper is to consider the methodological procedures involved in the development of qualitative sociopolitical and economic indicators.

"The first sections of the paper deal with various aspects related to the subject of measurement. This is necessary because misconceptions regarding the nature of 'qualitative measurement' are common, and misleading contrasts between qualitative and quantitative measurement are frequently made. The last four sections illustrate the procedures for the measurement of institutional indicators by applying them to the quantification of the concept of political participation in developing countries." There is an 18-item reference list.

21. Andrews, Frank M. and George W. Phillips, "The Squatters of Lima: Who They Are and What They Want," in *The Journal of Developing Areas*, Vol. 4, Jan. 1970, p. 211-223.

Presents the results of a sample survey of *barriada* residents in 1967 to determine priorities for urban development projects wherever squatter settlements have occurred. Attitudes toward 26 public and private services were measured and descriptive data obtained to serve as benchmarks for assessing subsequent changes. Services which ranked high on both indexes in extent and intensity of dissatisfaction were: location of medical services, water, sewers, lights, street paving, postal service and police protection. Relative importance of services was found to be quite stable across various subgroup classifications.

22. Baster, Nancy, "Development Indicators: An Introduction," in *Journal of Development Studies*, Vol. 8, No. 3, April 1972, p. 1-20.
ARC Catalog No. 309.2, F828.

Summary published with article: "Development is seen as multi-dimensional, involving changes in structure and capacity, as well as output. Three different, but overlapping, approaches to the definition of indicators are distinguished: first, the definition of indicators in the context of theoretical models of development, socio-political as well as economic; second, the use of indicators in the empirical study of interrelations between economic and non-economic factors; third, the development of indicators for policy and planning. The

integration of economic, social and political variables, and the identification of systematic relations between them depend on progress along each of these three dimensions." There is a 40-item reference list.

23. Baster, Nancy and Wolf Scott, *Levels of Living and Economic Growth: A Comparative Study of Six Countries, 1950-1965*, 153 p. 1969. United Nations Research Institute for Social Development, Geneva 10, Switzerland.

This volume reports the findings of a project designed to examine the relation of specific social factors to specific forms of economic growth from 1950 to 1965 in Morocco, Chile, Jamaica, Mexico, Ceylon and Malaysia. In particular, the influence of education and health on the economic growth of these countries is examined and a set of hypotheses is developed to account for the findings. Emphasis is given in the report to the ways social factors may influence economic growth, their effect upon the responsiveness of the economic system and their role in the mediation of stimuli from one economic sector to another.

24. Blaisdell, Thomas C., Jr., "Problems of Evaluating the Effectiveness of Development Measures," in *Economic Development and Cultural Change*, Vol. 2, Jan. 1954, p. 286-297.

In a review of the United Nations and the Specialized Agencies, the questions of "what is economic" and of priority were considered. This paper presents some of the issues resulting from that discussion. Standards of priority used in allocating funds were: 1) to increase food production and distribution; 2) increased production and distribution of other necessities of life; and 3) projects to broaden technical knowledge itself. Technical project criteria too often are based on operational efficiency rather than on fundamental results. Discusses national income (defined in the U.S. by Gross National Product) as the economic measure of evaluation, both as to result and process. Program evaluation rests on: (a) awareness of the impact of the technical changes and tension created; (b) potential increase of productivity and capital resources; and (c) consideration of the ratios between consumption and production goods (capital), and among land, capital, power, communication, manufacturing and commerce.

25. Drewnowski, Jan, *Social and Economic Factors in Development—Introductory Considerations on Their Meaning, Measurement and Interdependence*. Report No. 3. Feb. 1966, 46 p. United Nations Research Institute for Social Development, Geneva 10, Switzerland.

This paper is intended as an introduction to studies addressing the problems of adequately defining social concepts connected with development, quantification of these concepts, and investigating the interrelated roles of social and economic elements in the development process. General approaches

to quantifying social concepts, particularly "level of living" and "level of welfare," are discussed.

26. Drewnowski, Jan, *Studies in the Measurement of Levels of Living and Welfare*. Report No. 70.3. 1970, 103 p. United Nations Research Institute for Social Development, Geneva 10, Switzerland.

Studies presented in this volume extend earlier efforts of the United Nations concerned with the measurement of levels of living. "Measuring Social Variables in Real Terms" discusses concepts and principles, while the other two papers, "The Level of Living Index, New Version" and "The Level of Welfare Index," seek to transform the concept and principles into operational tools. The "level of welfare" is conceived as a function of the "level of living" but is not entirely determined by it since factors other than the flow of goods and services over a period of time affect the need states of individuals.

27. Drewnowski, Jan and Muthu Subramanian, "Social Aims in Development Plans." Part II in *Studies in the Methodology of Social Planning*. Report No. 70.5. 1970. United Nations Research Institute for Social Development, Geneva 10, Switzerland.

Examining 61 national development plans, only 14 had the minimum data for formulation of a methodology to derive the preference weights assumed for three social factors: nutrition as indicated by daily per capita caloric intake as a percent of requirement; health denoted by the percent of the population with access to medical care; and education, comparing primary school enrollments to percent of population aged 5-14 years. These three factors were the only quantified ones common to any of the plans. Preference weights attached to the three sectors seem to be proportional inversely to the level of that sector at that point of time. Social aims seem to be more related to the development level of a country than to any specific characteristics.

28. Drewnowski, Jan, Muthu Subramanian and Claude Richard-Proust, "A Planning Model for Social Development." Part I in *Studies in the Methodology of Social Planning*. Report No. 70.5. 1970, 127 p. United Nations Research Institute for Social Development, Geneva 10, Switzerland.

Two main premises underlie the planning model. First is that the social and economic elements must be planned in relation to each other in an integrated way; the second is the primacy of social over economic elements, with the economic variables as intermediate factors to be used to maximize the level of social variables. Tables are presented on the interdependence of the variables of both a long-term model for the present and for the impact of the present plan on the future.

29. Elliott, Charles, "Income Distribution and Social Stratification: Some Notes on Theory and Practice," in *Journal of Development Studies*, Vol. 8, No. 3, April 1972, p. 37-56.
ARC Catalog No. 309.2 F828.

Summary published with article: "This paper starts with a brief statement of the assumption that income distribution improves as income per head rises and that one way in which this is achieved is the 'trickle-down' of expenditures (and therefore incomes) to the lowest income groups. Some conditions are defined for this assumption and subjected to some theoretical criticism. More particularly, a plea is entered for a more attentive hearing of the structuralist case that social and political forces need to be taken into account in any description or analysis of income distribution. Still couched in very general terms, a brief review of some development strategies shows that typically two popular strategies are likely to be attended by increases in the inequality of income distribution. The second part of the paper looks at some of the problems of definition of indicators and measurements of income distribution with regard to the familiar constraints of lack of data availability and the need to take account of the structuralist demand mentioned above. Rejecting as inadequate a regional approach, the paper ends by proposing a somewhat unusual form of tabulation and applies this technique to Zambian data for 1970." There is a 44-item reference list.

30. Fox, Karl A., "Toward a Policy Model of World Economic Development with Special Attention to the Agricultural Sector," p. 95-126 in Erik Thorbecke (ed.), *The Role of Agriculture in Economic Development*. 1969. Columbia University Press, New York, N.Y. 10027.

Development of some of Roger Barker's observations of the behavior settings of a small midwest town into a mathematical formula for optimal allocation of a person's time among behavior settings followed by an expansion of the concepts into a world model divided into 16 functional economic areas (FEA) with formulae.

31. Guttman, Louis, "Social Problem Indicators," in *Annals of the American Academy of Political and Social Science*, Vol. 393, Jan. 1971, p. 40-46.

This is a progress report on the development of a "mapping sentence" which defines a universe of observations for social problem indicators to guide policy formation by Israel's ministries. Emphasis of the theoretical discussion is focused on the concept of "problem" and the need to distinguish these observations from other behavior. Illustrations are given from the continuing study in which the "mapping sentence" has been used for designing observations for "social problem indicators."

32. Harland, Douglas G., *Social Indicators: A Framework for Measuring Regional Social Disparities*. July 1, 1971, second draft, 80 p. Department of Regional Economic Expansion, Ottawa, Canada.

The Canada Department of Regional Economic Expansion has been established to ameliorate certain regional socioeconomic disparities in Canada. This report presents an analytical typology for planning and evaluating social adjustment strategies in collaboration with other federal departments. The concept of quality-of-life, including the components of a social system, is presented in an analytical model in terms of level, standard, and norm-of-living and its axes of analysis unit, type, subject and level-of-analysis. This typology leads to an elaborate discussion of social indicators in terms of goal specification, measurement of goal attainment and the construction of social indicator indices within a social development framework. Finally, the report reviews work in progress and directions of future work in this area by the Social and Human Analysis Branch of the Canada Department of Regional Economic Expansion.

33. McGranahan, Donald, "Development Indicators and Development Models," in *The Journal of Development Studies*, Vol. 8, No. 3. April 1972, p. 91-102. ARC Catalog No. 309.2, F828.

It is held in this article that social indicators are not a substitute for research but a tool and would be misapplied if used to reveal the "impact" of different development factors upon each other. Various developed models are described and the limitations of the measurement of the use of social indicators to gauge national development are enumerated. Notably, indicators are asserted to be impossible to convert into a single value scale. Concepts of optimum patterns of development are represented as another value aspect over and above that of single indicators.

34. Moser, Claus A., *The Measurement of Levels of Living with Special Reference to Jamaica*. Colonial Research Study No. 24. 1957. Her Majesty's Stationery Office, London.

With the UN Report on International Definition and Measurement of Standards of Living as a background, this study concentrates on the four components of nutrition, education, health and housing, with some general considerations of income, expenditure and consumption. Other topics discussed are: levels vs. standards of living definitions, classification of indicators, combination of indicators and of components, and international and intertemporal considerations. Some general comments and recommendations for future work both specifically in Jamaica and elsewhere are included.

35. Russett, Bruce M., "Indicators for America's Linkages with the Changing World," in *Annals of the American Academy of Political and Social Science*, Vol. 388, March 1970, p. 82-96.

Views the major problem of a world social indicators project as deciding among the infinity of indicators which will serve as measures of variables that are theoretically important. Lists current variables on which data are available and outlines the categories into which indicators might be classified as being: national-attribute data, value-achievement-aspiration differentials, and indicators of international linkage. Asserts that the present research climate and the varieties of present information are such that this strategy would optimize the efficiency of individual scholars in filling gaps in and encouraging others to use testable models of international phenomena.

36. Seers, Dudley. "What are We Trying to Measure?" in *Journal of Development Studies*, Vol. 8, No. 3, April 1972, p. 21-36.
ARC Catalog No. 309.2 F828.

Summary published with article: "Development means creating the conditions for the realization of human personality. Its evaluation must therefore take into account three linked economic criteria: whether there has been a reduction in (i) poverty; (ii) unemployment; (iii) inequality. G.N.P. can grow rapidly without any improvement in these criteria; so development must be measured more directly. The conceptual and practical problems of a number of indicators are discussed and also the implications for planning, both national and international." There is a 21-item reference list.

37. Taylor, Charles Lewis, "Indicators of Political Development," in *Journal of Development Studies*, Vol. 8, No. 3, April 1972, p. 103-109.
ARC Catalog No. 309.2, F828.

Summary published with article: "Development implies goals and the positing of goals requires values. Economists have generally agreed that the increase of wealth (or perhaps welfare) is the proper object of economic development. Political scientists, probably happily, have no similar agreement in regard to the appropriate goal for political development. Moreover, it is doubtful that the various aspects of political change are located along a single continuum. This is an empirical question but investigation ought to begin at least with provision for an n-dimensional space. Finally, political scientists should concentrate on political change that has too often been neglected in favour of economic and purely social change." There is a 16-item reference list.

38. Terleckyi, Nestor E., "Measuring Progress Towards Social Goals: Some Possibilities at National and Local Levels," in *Management Science*, Vol. 16, August 1970, p. B765-B778.

Stresses both the need for further development of social indicators and national

goals, and the inadequacy of much of the data, with several large gaps noted. This is a summary list of six major areas of national goals with corresponding principal indicators of goal output.

39. United Nations, *International Definition and Measurement of Levels of Living: An Interim Guide*. 1961. United Nations, New York, N.Y. 10017.

A joint progress report of the UN, ILO, FAO, UNESCO and WHO concerning action taken on suggestions the Committee of Experts made in 1954. Components and indicators appropriate for the international definition and measurement of levels of living are specified with a proposal for also gathering national background data on demography, labor, income, expenditure, communications and transportation. The explicated components of level of living are: health, nutrition, education, employment conditions, housing, social security, clothing, recreation and human freedoms.

40. United Nations, Department of Social Affairs, "European Programme of Current Housing Statistics," p. 1-5 in *Conference of European Statisticians: Statistical Standards and Studies*. 1966. No. 7 St/ECE/HOU/29 St/CES/7. Sales No. 66 11. Mim. 42. United Nations, New York, N.Y. 10017.

A recommended list of statistics for countries to compile to measure housing. Contains a complete guide including definitions, concepts and suggested methods of collection, but with a very broad international scope.

41. United Nations Research Institute for Social Development, *Contents and Measurement of Socio-Economic Development: An Empirical Enquiry*. Report No. 70.10 1970, 162 p. United Nations Research Institute for Social Development, Geneva 10, Switzerland.

The central purpose of the study described in this report was to examine the nature of development—particularly the interrelations of its social and economic aspects through cross-national comparative analysis using social and economic indicators available as of 1960. Data on a set of 73 development variables for 115 countries with populations over 1,000,000 were incorporated into a data bank. Variables were reduced to 18 core indicators, the interrelationships of which were studied by a system of "correspondence analysis." A general index of socioeconomic development was subsequently developed combining these 18 indicators.

42. United Nations Research Institute for Social Development, "The Concept of Development and Its Measurement," in *International Social Development Review*, Vol. 2, 1970, p. 1-6.

Development is a process of (a) achieving higher levels of commonly accepted

value continua (health, education, income, etc.), (b) building up instrumentalities and means, and (c) undergoing structural changes associated in practice with (a) and (b). This concept does not include incidental and trivial concomitants or various negative concomitants. Argues for the use of multiple indicators of development in addition to per capita national income and presents correspondence analysis on a set of 24 economic/social indicators of structural factors and developmental objectives (goals and means). Such analysis is useful for projections and planning, providing more elaborate empirical content to the concept of development than per capita income alone.

43. Wilcox, Leslie D., Ralph M. Brooks, George M. Beal and Gerald E. Klonglan, *Social Indicators and Societal Monitoring: An Annotated Bibliography*. 1972, 446 p. Published by the Elsevier Publishing Co., P.O. Box 211, Amsterdam, The Netherlands. In the United States, orders should be addressed to Jossey-Bass, Inc., 615 Montgomery St., San Francisco, Calif. 94111.

This work contains over 600 annotations from over 1,000 cited sources. Although most of the sources are from North America, this English-language document contains current references from six European nations and several international organizations, including the United Nations. The author index and the key word subject index provide cross-referencing to the annotations arranged by the following topical headings: Definition, Conceptual, General Theory, Methodological, Policy and Planning, Application, Criticism and State of the Art, Bibliography and Related Sources. An introductory essay provides an overview of the social indicator 'movement' and serves as a background for the bibliography.

44. Young, Ruth C., "A Structural Approach to Development," in *The Journal of Developing Areas*, Vol. 2, April 1968, p. 363-372.

This is an attempt to formulate concepts and develop indices more accurately expressive of the development process and status than are the usual measures. The concepts of industrial development, communicative development, and external diversity, all with unique and specific conceptualizations, were formulated and tested with measures on 50 non-Western countries. Guttman scaling was used in the study; tables are presented showing the item content used in the scales, sample proportions and item errors, and a rank correlation matrix of development measures using Kendall's tau.

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