

SOCIAL INDICATOR DESIGN AND USE

AN INTERACTIVE PROCESS

by

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ABSTRACT

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Social indicators, the measures we use to guide social action, are important because they define and focus attention on problems and create demand for particular solutions. The combination of a new ability to store and manipulate data and a commitment to deal with a wider range of social issues has produced a new interest in deliberate planning of social indicators. Thus far the writings are speculative and efforts to institute a system of indicators have failed.

The purpose of the thesis is to help find ways to design indicators successfully. The study considers "design" to include all elements essential to the creation of an indicator and its involvement in decision-making. It includes methods of defining concepts, collecting data, and constructing indices as well as types of institutions to produce and use the indicator and ways it may get political acceptance. The thesis examines these issues for two indicators that have had long history and wide use and may be considered relatively successful. The indicators are the U.S. unemployment rate, the monthly percentage of the labor force that is unemployed, and the standard budget, a list of goods and services requisite for a particular standard of living. When priced, it is a measure of income adequacy. The studies examine the intellectual and political origins of the indicators, the ways their concepts and methods came to be developed, and the ways they were used and not used.

These successful indicators share common characteristics. Both were created for urgent social problems and received particular impetus in crises like depressions and wars. The legislative rather than the executive branch motivated substantive developments. The methods and

concepts emerged from a long period and involved both academics and politicians. Both indicators were produced by statistical agencies, insulated from politics, with the aid of outside committees which formed interest groups and gave legitimacy to changes.

The unemployment indicator was more successful in many ways than the budgets, and the reasons derive largely from its qualities as a simpler, more straightforward measure. As an essential part of the implementation of a policy established by the Employment Act of 1946, the unemployment rate became an institution. Interest groups and the public came to understand it, analysts to use it and many to defend it from attack from the press and encroachments on its objectivity. The budgets, in spite of their wide use to set wage and welfare levels, never gained general acceptance as a measure of income adequacy and never became part of established policy. Nonuse of the budget where adequate income was an issue was as common as use, particularly in policy discussion. As a complex, empirical measure of an imperfectly defined norm, it was ambiguous, value-laden and controversial. It was misunderstood and not useful to researchers. Today its existence is in doubt, as a hostile Administration attempts to abolish it rather than accept the income goals it defines, and few come to its defense.

The conclusions are that indicators are most likely to be successfully produced with Congressional initiative, taking advantage of current issues. The process will take years, and the qualities of the indicators and the ways they are used will interact. Institutions to protect indicators from current politics, provide them with informed interest groups, and permit orderly change and public scrutiny are essential. Finally, the indicator's concept and design must be clear and, if not simple, then based on theory so it may be explained, trusted, and used.

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The interpretations here are, of course, my own. Others who have been helpful are Mancur Olson, Professor of Economics at the University of Maryland and former director of a Federal project to develop social indicators, Nathan Glazer, Professor of Sociology at Harvard, Mollie Orshansky of the Social Security Administration and developer of the poverty line, Pamela Kacser, Bureau of Labor Statistics Economist, Sophia Travis, Office of Manpower and Employment Statistics in the Bureau of Labor Statistics and Daniel Tunstall, head of the social indicator project in the Office of Management and Budget. I also want to thank the many others at MIT, Harvard, Berkeley, University of Michigan, and in Washington who generously spent time with me discussing questions in this thesis.

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PART I

SOCIAL INDICATORS: PROBLEMS AND OPPORTUNITIES

CHAPTER I

SOCIAL INDICATORS IN THE FORMATION OF POLICY

Introduction

After retiring as Secretary of Health, Education and Welfare, Wilbur Cohen told a Congressional Committee that the Chief of Statistics and Research (which he was also at one time) is in many ways more influential than a Cabinet Secretary. He continued, "the man who decides to collect or not collect statistics on Indian education or medicare or medicaid or nutrition or hunger is the person who is fundamentally determining the character of the issue and the controversy later on." (1)

The dawning realization that statistics may define the problems we face as a nation is motivating a widening effort to develop social indicators as a conscious part of the policy-making process. Although decision-makers have used social statistics for many years, the choice and design of the data has not been their province. Thus they have not applied the kinds of selection criteria to data that they have applied to the other decisions they make. The result is that policy-makers are often faced with problems whose basic outlines are shaped and limited by the character of the data that

happens to be available and to carry with it some credibility. Other problems are impossible to demonstrate or even define clearly in the absence of quantitative information. Advocates of social indicators agree that their choice and design should be more deliberate and more directed toward issues of public policy. But how to do this effectively remains a question.

The objective of the present thesis is to explore the implications of the idea that social statistics themselves and their supporting institutions are an integral part of the process through which public action on social issues is conceived and taken. The thesis will examine not only the hypothesis that an indicator's existence and character is critical to the ways in which we perceive and solve problems, but also that the nature of the institutions and methods for producing and using the data has an important effect on whether and how we do use the data. Of course, the nature of the indicator itself can influence the character of the institutions around it, just as the institutions may influence the indicator.

The ultimate purpose of this study is to further understanding of how social data themselves may come into existence and how and why they shape or fail to shape public decisions. The underlying assumption is that data are at least potentially beneficial to the process of social decision-making - that they may inform the participants and give them common ground for rational discussion and that they may provide us the means of formulating specific

goals and measuring our progress toward them. In any case, quantitative data is certain to be a part of an increasing proportion of decisions on social questions in this modern era of computers and "scientific" samples. Therefore, it is essential that we learn to design and to use or to reject data so that it informs rather than confuses discussion. We should try to make this new use of data an opportunity rather than a problem.

The basic approach of the thesis to understanding the dynamics of data in social decision-making has been to examine the birth, growth and evolution of two indicators which have an important current role. One is the unemployment rate, the monthly percentage of the U.S. labor force which is unemployed. It plays a major role in decisions on national economic policy. The other is the standard budget, a lesser known, but in many ways equally potent, indicator of an "adequate" income level. It figures in decisions about benefits and wages and is beginning to play a role in discussion of guaranteed incomes.

The study aims to identify the forces that have created these indicators and influenced their development, to define ways they have been produced, used, and not used. The analysis seeks many of the explanations in the nature of the indicators as well as in the ways they have been developed and presented to the public.

An understanding of how data selection, design, uses and users have interacted over a long period for actual indicators can help us to plan the new indicators we want the institutions they will require. Certainly, if we know nothing about how indicators have developed and come to play a role in decision-making, (or failed to play one) we are at a considerable disadvantage. After examining the two indicators, comparing the successes and failures, and attempting explanations, I will define some general guidelines to a strategy for developing future indicators.

Definition of a Social Indicator

As a first step, let me make clear what the term indicator means in the context of this thesis. It is any type of quantitative measure which is either used or designed for use in guiding some action. This should be differentiated from statistics, which are simply numbers, buried perhaps in census tabulations, in which no one is interested and which no one is likely to use. A statistic becomes an indicator when someone uses it to back up a comment on the state of society, a suggestion on a proposed action, or actually to formulate an action. An indicator reflects directly or indirectly on a matter which is of concern to society and which society may possibly affect. Thus the number of stars in the sky is probably not an indicator whereas the number of soot particles in the air possibly is one.

The term "social" meant only to limit the indicator to matters directly pertaining to the welfare of people in their social context. Thus an indicator of mental illness would be a social indicator insofar as society was either responsible for or affected by it. The so-called "economic" indicators are sometimes used to study the economy, the state of which is only indirectly and not always dependably related to the welfare of individuals or groups. Sometimes economic indicators are directly used to reflect the social conditions and, in that case, we would consider them social indicators.

Many writers have suggested that social indicators should have some specific characteristics to be deemed worthy of the title. Some say they should be part of a regular time series, they should be descriptive, help us make predictions, or provide warning signals of impending problems. Others stress that social indicators must be part of an interrelated set pertinent to the total social system, that they must permit causal analysis of problems or that they must be directly normative.

The present study will regard these proposals as hypotheses. One can limit one's definition of a social indicator to data which meet any of these criteria, but I prefer to limit it only to data which can be or are used in decision-making. The quality of their use or the way they are used is a subject for investigation here rather than a prior decision. While the traits suggested for social indicators sound

attractive, some may be more useful for dealing with certain types of problems than others. Some characteristics may not even be feasible because of the nature of certain social issues. Moreover, they may be constrained by the ways policies are made or can be made in our system. For example, an early warning indicator is not of much value if decision-making procedures are not set up to respond to them. It is possible that our brand of democracy will never set up procedures for the rapid decisions that the design of many types of indicators would presume.

This broad definition of social indicators represents an attempt to avoid defining away important questions about the way an indicator can and, perhaps, should be designed and used. Many narrower definitions would preclude investigation of how design and use may actually be related, stating only instead how they ought to be related. One outcome of this thesis will hopefully be the exploration of the concept of a social indicator and a more complete definition of what it is, what it is not and what a range of possibilities may be.

Indicators Define Problems and their Solutions

The most important role of social indicators, as Wilbur Cohen implied, is probably their way of defining many of the problems that society confronts. The situations that we as a society preserve as problems are not forced upon us by chance or some arbitrary fate.

Rather, our problem perceptions are relative to our social system and values, and to our information. (2) Thus we perceive unemployment as a problem today because first, our system has now made it possible for workers to have permanent job attachments, secondly we have come to place high value on regularity of employment, thirdly, we have a model of how unemployment may be alleviated, and finally, we have precise, frequent data on the level of unemployment.

The question of how problems come to be defined is important most obviously because if we do not perceive a problem, we are not likely to do anything about it. Moreover, the way the problem is defined points us in the direction of certain types of actions. Thus if we define as a problem that many Americans are illiterate, the obvious answer is to provide literacy training. However, if we define the problem as the fact that many cannot cope with the complexities of modern life, literacy training is only one of the possible indicated actions. If poverty is an individual's problem, we tend to provide case work solutions; whereas if it is a social problem, we might try to eliminate discriminatory practices.

A problem is defined by the discrepancy between an actual situation and a desired situation. Two elements are involved, our perception of reality and our goal definitions. Indicators are important in both. Thus if we say the problem is that the economy is not growing fast enough, it means we have some way of measuring economic growth and some criterion for what is fast enough. The usual measure for growth is GNP,

and what rate is "fast enough" may depend on past rates or other countries' rates. The target rate might also derive from models that connect GNP growth to other target variables like unemployment rates, or population growth. The target GNP growth might be set at a level thought high enough to produce low enough unemployment or high enough to accommodate an expanding population.

The definition of the problem turns out to be where many decisions are made and many, often desirable, alternatives foregone. Problem definition is not only essential to action, it may well actually promote action, and indicators make the latter particularly likely. Thus once you can define and preferably, measure a discrepancy between what it is and what most agree should be, then it becomes a political necessity do something. (3)

Quantitative description tends to be more communicable on a mass scale and carry a certain aura of fact which purely conceptual definitions do not. Thus problems for which we have quantitative measures tend to receive most public recognition. Policy makers are more likely to act on them than on many other issues because, when measures exist, it is easier to demonstrate reasons for policies and progress toward goals.

In a statement prepared as a preface to the recent White House Staff Report on National Goals, Patrick Moynihan outlined many of the issues in measuring social problems. He said "It is a good general

rule that governments only begin to do something about problems when they learn to measure them. It is perhaps even more important to be clear that people are only likely to take serious advantage of opportunities when they learn to recognize them." He goes on to describe how the development of national income accounts permitted for the first time a discussion in comprehensible public terms about implications of decisions for economic growth.

He said that goals "institutionalize the creation of each discontent. The setting of future goals, no matter how distant, drains legitimacy from present conditions. Once (a goal) is established and it is agreed upon that the future will have to be very different from the present, it becomes absurd to be content with the present."(4)

Indicators, then, play an important role in policy-making by providing descriptions of reality, suggesting ways of formulating goals, and, by implication, identifying problems. In defining problems, they point to decisions for policy and sometimes create demand for policy. This is the fundamental potency of indicators. It is the reason that individual indicators have frequently become controversial and at the same time that they can open new vistas for the policy-makers.

Policy-Making, Models, and Indicators

The potential and limitations of social indicators in the formulation of public action on social problems depend on the models we use to analyze society and the models we use to select and measure the indicator. These must mesh with one another if the indicator is to be useful. It is these models that underlie our policy formation, problem definition and indicator selection. We cannot fully understand the role that indicators have or fail to have without recognizing the existence and nature of the models we operate with.

Let us first clarify some terms. A policy is broad, high-level decision about goals and strategies. It involves issues in the context of a large system, long-range objectives and basic values. It should be differentiated from a program, which is the definition of tactics to reach a specified goal. Although the two are on a continuum in which the dividing line is imprecise, a program design involves a more united system, in which many more elements are predetermined or presumed not manipulable (5) because the policy has already been set. A policy for example, might be to end our participation in Vietnam as quickly as possible, without trying to win. A program would be the plan for how many people would be withdrawn, when, and under what circumstances. At the program level, policies may be subverted or created implicitly. In any case, it is

in the creation of policy that indicators have their greatest potential impact, as they work together with explicit or implicit models.

The term "model" in this thesis is a broad one. It includes not only precise mathematical descriptions like econometric models, but also more imprecise, poorly articulated descriptions of how society functions, how people behave, or how an organization operates. The model may be explained in words, numbers or diagrams. It may be purely descriptive in the sense that it simply assigns names to elements in a situation and perhaps links between variables whose behavior seems to correlate. It may also be a causal model in which the relationships between elements are explained and the forces identified. Finally it could be a normative model, which described how things ought to be done.

Policy and program planning requires at least an implicit causal or normative model. A policy is designed to change some condition, to "solve" a problem by alleviating the discrepancy between what is and what should be. The normative model may define what should be, the causal model how to change current situations to preferred ones. Thus problem definition and problem solution are intricately bound up with models.

An article by William Pounds of MIT's Industrial Management School describes the ways in which managers "find" problems (6) by using various kinds of normative models. He provides a succinct outline of the approaches, which are certainly common to social decision-makers and policy analysts. The most common model is the historical one, which says that current situations should resemble the past. For example, April sales should always exceed March sales by 10%, or absenteeism should remain constant. Planning models also play a role, however, in which the problem is defined by a failure to achieve some target performance level. This is the kind of "problem" Democratic presidential candidate Edmund Muskie had when he won a primary with only 35 percent of the vote instead of his predicted 45 percent.

Pounds outlines three other types of problem-identification models. Other people's models force problems on managers when they write in with complaints about products that do not meet their standards, however derived. Thus developing countries tend to have problems like unemployment or lack of economic mobility defined for them by the countries which give them assistance. Extra-organizational models provide problem definition for managers who feel their company should be following a similar pattern to other companies. This nation has a problem in health care because our mortality rates are higher than many other countries. Finally, every so often a scientific model comes into play. The engineer often identifies problems in, say an

electronic control system, with the aid of complex theoretical models evolved by scientists. Although this kind of problem-finding is rare in social policy, it was at work in the original definition of strategies in the Poverty Program. Because of a social science theory on the relation of delinquency and opportunity to poverty, plans were made to alleviate poverty indirectly, by dealing with delinquency. (7) All of these models, of course, except perhaps the scientific one, require further models of how to bring about change. These simply are models of how to define what change is necessary.

The indicator is important in this process because it provides the description of the reality and often of the goal. As such, it may carry within it the normative model. If the description is only partial, it may become the reality in our minds as we use it in our model. For example, when we use annual income to identify the poor, we tend to equate poverty with a particular low income. It happens that a substantial portion of low-income families have major possessions like homes and cars and can live quite comfortably, and a number of others go into debt or savings in a low-income year and continue to live comfortably. If we use the income line as the unique poverty definition, we assume a model of poverty which says) that income is the only factor that is necessary to identify the problems which we call poverty. Use of an income line suggests to the policy-maker the obvious "solution" to poverty - raising of incomes.

Thus the indicators influence policies through the models they imply.

Measurement Requires Models

Thus far, we have discussed the role of an indicator in models for social change, but we should also recognize that the indicator itself depends on measurement models and assumptions, which ultimately determine what the indicator means. (8) That is, an indicator is the product of a measurement process in which there is an objective or a concept being measured, a model which describes by what phenomena we may measure our objective, and a set of methods by which we make the measurement. Sometimes we fail to specify the concept precisely, perhaps the model for its measurement has flaws or the actual methods may not capture the intended phenomenon. Any and all of these problems may exist in an indicator and will influence the way it behaves, the way it is regarded and the way it can be used. The appropriate way of measuring something is not dictated by an absolute criterion. A measurement is not the reality but only our notation for it, and its appropriateness depends to varying degrees on the acceptance of values, assumptions, and the purposes for which we want the indicator measures depend on some kind of theory, however primitive, and the final indicators are at varying distances from the reality they intend to describe. Thus at the simplest level, direct observation, we might want to measure the number of chairs in a room. To do so we have to make assumptions about our measurement instruments and assume that

our eyes will actually show us all the chairs. We have to make an important assumption about the adequacy of our instrument when we look through a telescope or send an agent into the field to observe for us. We also have made an assumption that the relevant item to count is chairs and that we have a generalized concept of a chair. This is easy enough if all are of some conventional design, but we may have to make some classification decisions for stools, benches and even desks, all of which may serve the same purpose as chairs sometimes. The decision clearly will depend on what use we want to make of the information. A junk dealer might measure the whole room in pounds of scrap metal.

These are the minimum kinds of assumptions and judgments involved in any measure; their number increases as the measure is at an increasingly greater distance from the underlying concept. Most measures of social phenomena have the more tenuous relations to their object. According to a typology by Kaplan there are three more measurement types which lie on a continuum from fewer to greater assumptions. (9) The first is indirect observation in which we only infer the existence of the phenomenon through presumed connections, usually causal, with something we do observe. What we observe may in fact be very different from the phenomenon we are interested in, but we believe it is its observable effect. Thus we infer the existence of an electric current because we feel a shock, a change in temperature

because of the rise in a column of mercury, or the existence of poverty because we see poor housing.

We can measure another kind of concept by reference to direct observables in connection with constructs. We measure or define the concept in question by calculation based on observables or some assumed relations between the observables. We often cannot see velocity, but we measure it by calculating from positions in space and time. We do not observe discrimination but calculate it on the basis of social and individual behavior patterns. Clearly since there may be differences among definitions of something so difficult to observe as discrimination, our measurement of it will depend tremendously on our interpretations of human behavior and our understanding of motivation.

Finally, we might try to measure what Kaplan calls a theoretical concept - a concept not fully defined by reference to observables, even with an intervening model. Kaplan cites as examples marginal utility and the Protestant ethic, both of which can only be understood in the context of economic and sociological theory, respectively. In other words, their meaning depends on a total system of theory. In social policy such theoretical concepts might be the cycle of poverty or family disorganization.

The two indicators which are the subject of this thesis fall at different ends of this continuum of implicit measurement models. The

unemployment rate is an indirect measure, whereas the standard budget is closer to a theoretical measure. Though we cannot observe unemployment directly, we can inquire about it from those who experience it directly. The implicit model says only that people will understand and reply honestly to the questions and interviewers will record them. The standard budget, however, represents a concept whose very existence we only presume because of what we observe about how society operates. As we shall see, it is measured by a number of elaborate inferences, many of which start with indirect observation. The many measurement assumptions of the budgets demanded far more theory than unemployment measures. The indicator would prove to be adequate for many purposes because the theory was insufficient.

Many strategies exist to measure things which are not completely observable. (10) One can measure some other variable thought to vary with the concept of concern either because of a causal connection or simply past experience. One can also measure something which represents part of the concept. For example, violent crime is sometimes used as an indicator of total crime in the United States. In fact, it may not vary in the same direction or to the same degree. Another approach is to use a composite figure to represent a complex concept. Socioeconomic status, for example, is often measured as a combination of income, education and occupational status. The use of this technique depends on finding commensurable units for the different

elements as well as devising a combinational rule. It requires an assumption that these several dimensions collapsed into a single index did not themselves interact in important ways and that these variations were independent. The unemployment rate is only a partial measure of the unemployment problem, but the standard budget is an attempt to represent the whole concept of income adequacy as a single, composite figure.

When one starts with a vague or imperfectly defined concept that one needs for a model or perhaps simply to explore further, one can apply the operational approach to measurement. Though we cannot measure such a concept directly, we can define a set of operations which in combination will provide both measurement and definition of the concept. That is, after we perform the operations, we have the measure, and whatever that measure represents is the concept. The best known such operational measure is IQ. The concept has got something to do with intellectual competence or intelligence, but the only way we can define it is through the comparative performance of many people in responding to questions on a particular test. We can assume the measure really does represent a phenomenon since its levels predict individual success in society's terms - grades and later earnings. The trouble with designing indicators in this "operational" way is that without a definite concept and a measurement model, we have no decision rules.

It is difficult to know if we are measuring any real concept. Once we have the indicator, we tend to regard it as representing a meaningful reality, though it may be only an arbitrary construct. (11)

The standard budget is such an operational measure, and, as such, it has been susceptible to attack on logical and technical grounds. Moreover, since no other measure of the social norm of income adequacy exists, there is no way to check the validity of this indicator as a measure of its concept - no way, in fact to be sure what it measures does. This problem was to provide the single greatest handicap for the standard budget in practice. Experience with the budget strongly suggests that successful indicators require not only clear concepts, but well thought-out models for their measurement.

CHAPTER II

BACKGROUND OF THE SOCIAL INDICATOR CONCEPT

Origins

The idea that statistics are pertinent to political decision-making is not new. The very term "statistics" is derived from the word state - information on the state. As early as the 17th and 18th centuries the Political Arithmeticians were interested in what they called the "Art of Reasoning by Figures Upon Things Relating to Government." A requirement for a regular census was written into the original U.S. Constitution. For more than a hundred years, governments in the United States and elsewhere have regularly conducted major data collection efforts on such social problems as the cost of living or industrial work patterns.

Today, quantitative information is likely to play an ever widening role in policy-making. It is particularly easy to communicate through mass media. Modern computer technology, permitting storage and manipulation of large quantities of data has already meant that social data is increasingly available and presented as evidence in many discussions. Moreover, in the sixties for the first time, except temporarily in the Depression, the United States has made commitments to government action on a wide range of social problems. It has been a period of rapid growth of social theory, and analysts and policy-

makers have wanted to test and choose among the ideas. All this activity increases the demand for and interest in social statistics.

Statistics on the quality of life have existed many years and have been used fairly often as indicators. The first self-conscious effort, however, to organize and interpret a collection of such data to reflect social conditions dates back to 1929, when President Hoover appointed a prestigious committee of social scientists to examine the major social trends. The kind of retrospective and long-range analysis that was the goal of the study was more suited to prosperous 1929 than to the pressing problems of the Depression. When the massive, thoughtful report came out in 1932, (12) it was not surprising that it made little impact. The study was not followed up, as attention turned to the solution of immediate problems. The idea of outlining and identifying a compendium of important social data was not revived again until the mid-sixties.

The contribution of economic indicators to economic planning was probably the most important single factor in the sudden popularity of the concept of social indicators. The most spectacular success of economic indicators, occurred just before the sudden burst of interest in social indicators in 1966 and 1967. Using economic indicators in econometric models, President Kennedy and his advisors decided in 1963 on a tax cut to prevent recession. By 1966 it was clear that not only was recession staved off, but also the economy was working at

approximately the levels official economists predicted. It was a coup for economic theorists, and it awakened imaginations about the possibilities for social data and theory in planning. Many of the proposals for social indicators have been modelled on economic indicators. Indeed the very term "social indicator" was conceived of as an analogy to economic indicators.

Let us look briefly at the story of economic indicators to see where there may be parallels or lessons to be learned for a strategy of development and use of social indicators. In the early part of the twentieth century, economists and statisticians in the National Bureau of Economic Research (NBER), in cooperation with a wide range of government operating agencies and statistical bureaus, built up an enormous array of time series data on a range of business conditions. The approach was very much an empirical one; the focus was on quantity rather than selectivity. Most of the data was collected and tabulated without a specific purpose or theory for its use. If the data seemed generally relevant and not too difficult to collect, the NBER would add it to its list of indicators. Their hope was that patterns would emerge from examination of the data. (13)

The majority of the economic indicators and ways of using them were developed before 1930. The theory of a continuous price index was developed in this time, and economists constructed several such indices. The indicators, which were eventually to number in the

hundreds, included figures on business output, input and general activity. Gradually, the NBER evolved a way of attempting to forecast upturns and downturns in the business cycle from the relation of current movements in the data to the pattern of past movements. They gradually defined certain indicators as "leading" and others as "lagging" according to their customary position relative to the movements of the other indicators. It was a historical model in Pounds' sense. The designation was not based on a theory which might explain why one indicator would be expected to lead or lag. Nor was there a theory explaining the dynamic or the cause of business cycles themselves. The use of economic indicators in the early period simply presumed the existence of such cycles and the continued relationship of certain variables to the cycle in the same way.

Economic indicators were useful for prediction so long as the patterns and relationships did not change over time. They would not be useful for diagnosis since the model used was only a descriptive one of past correlations. If past relations did not hold in the future, a new model would be necessary. It was an effort to measure economic activity without a model of what was significant activity to measure, or a model of how that activity might grow or change.

While it was a more reliable way of predicting future conditions, than an individual's subjective approach, it was not an aid to understanding

what to do about business cycles.

Businessmen and, to some extent, Federal agencies use these NBER indicators in this naive, predictive way even today, but new elements have radically changed the role of economic indicators since 1930. Several important new indicators were developed, in particular, measures of national income and product (GNP) and unemployment, to match new conceptions of the economy. John Maynard Keynes' work, along with the experience of a persistent depression focussed attention on a theory of economic growth. The interest in business cycles, receded in favor of a theory which explained the low-consumption, low-employment equilibrium the economy seemed to have reached. The theory was to be the basis for the econometric models of the national economy which were developed in recent years, using many of the NBER indicators. These models provided the foundation for the tax cut, and other successful efforts to calibrate the economy. Not only did they permit diagnostic analysis and indicate policy interventions, but they also provided greater accuracy and precision in prediction than the empirical, business-cycle approach.

Economic indicators were a key element in this development of economic policy and control. Indeed, without them it would not have been possible. Moreover, in the context of current models, the changes in economic indicators can critically affect national policy.

Social indicator enthusiasts see the same potential for social data - it could become increasingly important and contribute to the development of better prediction and more effective social policy.

The question is whether social indicators must pass through a stage of largely empirical activity involving the amassing of data and searching for patterns, or whether we can or should proceed directly to the careful selection of data for use in models of social change. The former is expensive and time-consuming, though it may be better than no systematic data collection if we can find some simple, repetitive patterns. We have no grand social theory equivalent to Keynesian economics in any case around which to structure social data collection, though perhaps more limited social theories can provide sufficient guidelines. Many advocates of social indicators as parallels to economic indicators do not appear to recognize how much more useful they were in the context of theory.

Recent Literature

In the midsixties, a new concept began to emerge into public view - the concept that a nation should follow a deliberate strategy of developing social data as a guide to public action. The idea of using social data for decision-making was not the new aspect. Rather, the new element was thinking of the data as a whole, and planning it more consciously in a broader framework than the special interests that had prompted earlier data collection.

Many different proposals would be made for the conceptual framework for a system of indicators, design principles for indicators, and specific new indicators themselves, but all are founded in a fundamental faith in a traditional rational planning model. The object of indicators is to improve decision-making. The assumption is that more information on alternatives and their effects will inform decisions better. The underlying, but usually unstated, idea is that there is some kind of formal process through which information is and can be an integral part of national policy making and that decisions will be taken based on the information. Despite this fundamental assumption, comparatively little can be found in the writings on social indicators on ways of facilitating and promoting indicator use and public understanding, or on the way indicators can be expected to mesh with planning processes.

The concept appears to have originated with Bertram Gross, a political scientist who was unquestionably influenced by the example of economic indicators. He had played a critical role as a Congressional staff member in the creation and passage of the Employment Act of 1946, the act which provides the framework for national economic policy-making, and later served on the staff of the Council of Economic Advisors, the principle policy-making body of the act. Aware of the success of economic indicators in promoting and rationalizing economic policy, he was concerned about the way economic indicators drew

attention away from social concerns. He termed this "The New Philistinism." (14) He was also interested in the potential of indicators for developing theories and conceptions of the social system.

The popularizer of the social indicator idea was Raymond Bauer, a social psychologist and professor at the Harvard Business School. He prepared the volume Social Indicators in conjunction with a study for the National Aeronautics and Space Administration on the impact of the space program on society. (15) He stressed the potential role of indicators to help us detect and measure the effects, direct and indirect, of the programs on society. The concepts were general to any major national program. His emphasis was on the complexity and interrelatedness of the various factors and on the importance of assessing program affects in the light of our values and goals. He clearly established the notion that indicators were for policy purposes. Some later writers had different or more specific views on how indicators would fit into decision-making but his basic insight has continued to motivate most of the ensuing discussion:

"For many of the important topics on which social critics blithely pass judgment, and on which policies are made, there are no yardsticks by which to know if things are getting better or worse." (16)

These early efforts were still somewhat vague, groping for a precise concept and strategy for indicators, but they awakened a tremendous interest. Suggestions and proposals have been proliferating ever since, (17) though the proposals are as varied as the disciplines from which they come and the personalities of their proposers. Some proposals draw directly on the concepts and methods in economic indicators, others are very political in nature, focussing on the strategic choice of indicator concepts and the impact they could have on policy, and others are problem-oriented, growing out of well-defined research areas. Some proposals involve grand system frameworks into which to fit indicators, others focus on principles for designing individual indicators. Some writers advocate the rapid amassing of data and others want to go slowly to await the building of theory. In short, there is as yet no clear pattern, no obvious solution to how indicators should be designed. In fact, there is considerable controversy.

To give an idea of the diversity and nature of the proposals we can look at some examples. One approach is the idea that indicators should be designed within a "social accounting" framework, modelled on economic accounts. (18) The indicators would be part of a vast matrix. This idea necessitates a grand system model, and tremendous effort in quantifying all the relevant elements, classifying them and determining the strength of their relationship

with other variables.

Economists at the National Planning Association, despite the practical difficulties, are working on such a input-output table. (19) The inputs are expenditures on government programs and the outputs are goal indicators like life expectancy or number of violent crimes. The advantage is that the array of alternatives can be seen at once. The problem is that the numbers in the table represent much guesswork because though we know very little about the relationship, say, of educational investment to educational output, we know almost nothing about the relation of educational investment to air pollution or population growth. Our social system models are simply not adequate to the task. Moreover, although the National Planning Association uses monetary units in its table, it is unclear that these are the relevant units for analysis of social issues. However, there is little likelihood of finding any other commensurable units and without them such a table is impossible. Certainly, the whole notion of social accounts has been severely criticised (20), and it has not been much pursued recently.

In another view, the important aspect of a social indicator is that it be of direct normative interest. Another economist, Mancur Olson, who headed up a Federal study on social reporting expressed this view succinctly. An indicator "should facilitate comprehensive and balanced judgments about the condition of major aspects of a society. It is in

all cases a direct measure of welfare and is subject to the interpretation that, if it changes in the "right" direction while other things remain equal, things have gotten better or people are 'better off'."

(21) He used GNP and National Income as the model. He seems to have posited very difficult requirements, however, since all indicator users will have to have the same normative model defining the "right" direction and will have to agree that all other things are equal. Even if enough agree on these models so the indicator can be applied, "all other things" are seldom equal in practice, as we shall see. Accordingly, the interpretation of an indicator's movements can seldom be unambiguous.

The recent study of the President's Commission on Federal Statistics had a section on social reporting which said that indicators could be problem-oriented, descriptive or analytical. (22) The implication was that these are three different kinds of indicators. The evidence in the thesis will suggest these specific descriptions and classifications are not very useful. It is unlikely we could lay down firm principles for the design of such indicators. Moreover, the system for using them is not monolithic and the supposedly descriptive indicator will be used as a problem-oriented one if it suits some purpose - and even sometimes if it does not.

Another approach is not to take a stand at all on many of these issues, but to encourage the development of indicators independently

of one another within the traditional groupings of policies or research interests. Of course the types of indicators that would emerge would be those which met needs of the specific area and its models. This is a kind of "laissez faire" approach in which indicator advocates collect in one place analyses and proposals of experts in many fields (23), but attempt to impose no structure. The prospects for developing useful indicators are good if one builds on a foundation of prior research and models. However, the goals of research in different areas are different, and accordingly, the indicators have varying degrees of policy relevance. The compendia of studies suffer from a lack of communication between the analysts and a lack of commonality of purpose. The reader who would like to have the use of more indicators in the future is left in limbo after reading the varied approaches and has little idea of where to go next.

The one element lacking in virtually all of these studies has been a view of a process through which indicator's might be designed and, eventually, used. (24) The reader might assume that the indicators can and should be created more or less by the stroke of the pen of some particularly wise individual. They could think that once the indicator is made available it will automatically be used and people will understand more about their problems and their solutions.

In fact, though most social indicator analysts have not addressed these questions, the answers may well influence all the other things they have said. If useful indicators cannot be designed by stroke of a pen, perhaps our postulates for indicator design will be beside the point. Moreover, if getting people to use indicators is a problem, then perhaps we cannot be so free to decide what type of design they should have or what type of model they must fit. Instead the designs and models may have to mesh with those of people who are setting policy.

Efforts to Institute a Social Report: Executive

Since 1966 there have been several efforts to institute a national system of social reports or indicators. The fact that the efforts existed testifies to the potential that many see in this area. The fact that none of them so far has been implemented testifies to the inadequacy of our understanding of how social data can come to be part of a decision-making system. However, the reasons for failure so far have not simply to do with an inability to choose the "right" indicators and plan ways to collect and use them. The very political potential of indicators has been a tremendous roadblock. Any strategy for the implementation of a social reporting will have to take into account that many people will regard indicators as politically dangerous and will attempt to stop their production because of their power to define problems and their solutions.

The first effort to establish a system of indicators began in 1966 when President Johnson in March of 1966 directed the Secretary of Health, Education and Welfare to "develop the necessary social statistics and indicators to supplement those prepared by the Bureau of Labor Statistics and Council of Economic Advisors. With these yardsticks, we can better measure the distance we have come and plan for the way ahead." It was a grand sounding gesture, but somewhat hollow. A Deputy Assistant Secretary, Mançur Olson, was given charge of the work, and he pursued it with mostly borrowed staff and part-time help. A panel of nationally known social scientists was appointed to supervise the work. Some contributed considerably, but the panel did not review the final report. The much heralded report, published almost three years later, was a slim volume assessing the social indicator needs in seven goal areas like income and health. (25) It was a respectable work, given the amount of resources that went into it, but it did not fulfill the promise of its mandate to lay the foundations for a social reporting system. It was a speculative document which apparently did not even represent the consensus of its high level panel. The report was an internal product of the Department of Health, Education and Welfare and carried with it no way of enforcing recommendations for data needs and little academic prestige. It did not make a stir in the news. After the report's issuance, Olson's office was disbanded, and HEW work on a social

report discontinued as President Johnson left office.

In July of his first year in office, President Nixon decided to follow up on the social report idea, but this time he proposed a White House staff group. He set up a National Goals Research Staff with the mandate to produce a social report in a year and the clear implication that it was to be the first in a series of annual reports. He made Professor Raymond Bauer staff consultant for the study, making it clear that the production of social indicators was a major purpose.

This effort too, however, was ill-fated from the start, as evidenced by the fact that political staffer Leonard Garment was placed in official charge instead of Professor Bauer. He would be more interested in the immediate political impact of the data than Professor Bauer and certainly would want to avoid any data that would create unwanted issues.

The political sensitivity of many types of data began to be obvious, and no important support from Cabinet members or interest groups materialized. The effort was little publicized and apparently not taken very seriously outside of the Goals Research staff. The final report (26), was a philosophical, semi-historical document organized, like its predecessor, around subject matter areas. It raised and discussed issues but contained almost no quantitative information and recommended no goals. There was no mention of another annual report, and again the staff was disbanded.

The only Administration followup to this abortive social report in 1972 is a small project in the Office of Management and Budget (OMB). One OMB staff member and one or two statisticians on loan from other agencies are planning a social statistics publication. If it is published, under current plans, it would draw only on existing data but would pull together and publish selected figures for some important goal areas. (27) Within the Administration there is little interest in the document, and its publication date keeps receding in the future. White House staffers have been known to object vehemently to the proposed inclusion of a number of kinds of data that could reflect poorly on the Administration's policies. One effort to limit controversy was an Administration decision to include no explanation or interpretation with the data. Dry tabulations are certainly less interesting to the news media than summaries and interpretations. The prospects for this statistics publication, even with all these limitations on it, are still bleak.

Efforts to Institute a Social Report: Congressional

Meanwhile, in Congress the pressure for social reporting is gradually building. Shortly after President Johnson set up Mancur Olson's group, Senator Walter Mondale introduced a bill into Congress known as the "Full Opportunity and Social Accounting Act." The concept, was that social policy planning could be rationalized by duplicating the organizational structure for economic policy-making.

The bill would set up a council of Social Advisors, nationally prominent social scientists, to advise the President and make an annual social report to Congress and the nation. Its counterpart in the Congress to evaluate the recommendations would be a Joint Committee on the Social Report. A recent addition to the bill would provide also a Congressional goals and priorities staff to parallel the OMB in evaluating the total budget and proposing alternatives. (28) It would do something in the nature of the Urban Coalition's "Counter budget" recently published, (29) outlining a number of feasible major alternatives for public spending.

A version of the bill has been reintroduced in each Congress and extensive hearings held. Although the bill has not yet passed, it has had many supporters in the Senate. In 1971 it was cosponsored by 24 Senators, including most of the candidates for the Democratic Presidential nomination. The most ambitious and activist Senators seem to see the legislation as an opportunity. The group as a whole is bipartisan, but entirely from the liberal wings of the parties. There has been no parallel interest in the House, where members tend to take a shorter range view of policy decisions. Conservatives fear this bill, as they did the Employment Act of 1946, on which it is modelled, because they recognize that social scientists tend to be liberal and that this kind of measure could give them power. Moreover, the fear of even minimal central planning still exists. Conservative opponents labeled

the Full Employment Act in 1946 "totalitarian", "Nazi" and "Communist", and would undoubtedly become as incensed if the Full Opportunity Act begins to gain ground.

The Senate hearings were compilations of views from social scientists who almost unanimously supported the bills, (30) and the Executive Office which invariably opposed them. Both Nixon and Johnson Administrations asserted that ongoing efforts and agencies were already performing the functions planned by the legislation. However, Johnson staff came back in later years to testify in favor of the bill. Both Administrations saw the bill as a threat to their control over social policy, which they preferred to plan through operating departments or internal staff of the Executive Office. Once the staff was out of power they would favor the bill again. They presumably recognized the force of the arguments often repeated in these hearings. A Council of Social Advisors, witnesses contended, would answer more to professional standards than to the exigencies of day-to-day politics. The publication of a social report would bring issues into public view and create demand for the resolution of problems. Clearly the President's Urban Affairs Council, made up of mostly Cabinet members and meeting quietly without public reports, would not perform any of these roles of a Social adviser's Council, though Administration spokesman asserted unconvincingly that they would.

The hearings have helped build a constituency for the concept of social reporting and provided a forum for exploration of the issues. They have also served to keep up pressure on the Executive to maintain some semblance of an effort, however emasculated, to produce an official set of indicators. In recent years Congress has voted the National Science Foundation more funds than it requested to sponsor research on social indicators. Many private and independent groups have been sponsoring major research on indicators, the Russell Sage Foundation, (31) the Urban Institute, (32) and the University of Iowa, among others. These private efforts may ultimately play an important role in the development of indicators, which so far have been too controversial for government.

CHAPTER III

PURPOSE OF THE THESIS

At this moment in 1972, the probability seems high that social indicators will play an increasing role in decision-making. We can make of this prospect an opportunity for focussing attention on problems and providing markers on the road to their solution. Indicators may provide a way of rationalizing discussion and planning, giving us common "facts" and concepts to use. Indicators can grow haphazardly with little national attention to any deliberate process of producing or using them. In that case, they may or may not clarify discussion or focus attention where, as a nation, we would wish it. If we feel it is worthwhile to make a conscious plan to hasten and guide the development and use of social indicators, however, we will need to understand far more than we apparently do at present about the nature of the process through which an indicator can come into being and into use.

The thoughtful and sometimes provocative work on the qualities indicators could or should have almost nowhere addresses this question of process. Occasionally there is a mention of the kind of institution that should produce indicators, but no apparent awareness of or, at least, concern for the need for a longer term strategy which

would convert dry statistics into useful indicators. The actual efforts to start a system of indicators also reflect this failure to plan for both design and use of the data. The inability so far to find a way to mesh a deliberately planned system of indicators with the political realities is due to a lack of knowledge about what happens at this interface of politics and data. We know relatively little about the ways in which one may affect the other - influence it or provide obstacles. (33) Perhaps the relationship is such that a deliberate, total system of social indicators can never be implemented. It seems likely, however, that if we understand more about the relationship of decision-making and data, we can encourage the growth of indicators.

Therefore, I have chosen to examine the birth and development of the two indicators which have played a role in important public actions on social problems over long periods. One indicator is the monthly unemployment rate, published by the U.S. Bureau of Labor Statistics, and the other is the standard budget, an indicator of living costs for a specified family type, based on the cost of a list of goods and services that are presumably adequate in some sense. The Bureau of Labor Statistics publish the latter annually for many cities and regions. I selected the indicators because they were similar in having a long history, which would presumably permit them both to have evolved through several stages and been accepted.

Moreover, they both have had fairly wide use so their stories should illustrate any interactions between design and use.

I selected the indicators also because of their differences in the hope that we might see what the implications of some of these differences were. Unemployment is a relatively simple concept, and a fairly direct measure, while the standard budget is a more difficult concept and more indirectly measured. Its measurement is more laden with value judgments and it is more of a composite than unemployment. The standard budget bears a greater resemblance to the more subjective "quality of life" measures that are increasingly being suggested. The unemployment figures are national aggregates applying to the country as a whole, whereas the standard budget has a limited applicability to particular subsets of the population. Finally, the standard budget is a level, a completely normative indicator, while the unemployment rate is simply a scale.

It may be that successful indicators can encompass these wide differences, or it may be that some of these qualities of the indicators may be obstacles to their effective use. The following case studies will attempt to shed light on how these indicator characteristics may be caused by or related to their use. It will be a study of the total process through which the indicators were created, used and not used.

"Indicator design" in the context of this thesis is a broad term. I mean it to imply far more than an academic exercise of selecting and structuring data to deal with a problem. Past experience gives no reason to suppose such a product stands much chance of becoming an indicator that made a difference. My assumption is - and hopefully the thesis will bear it out - that the design of an indicator is a more elaborate process which must interact with political realities. It is a product of institutions, individuals, available methodologies and pressing public concerns, as well as of the nature of the problem itself. Its existence may help to create new institutions, or methodologies, and may reshape public problem perceptions and plans for their solution. Therefore indicator design will be viewed in this thesis as an interactive process with its use, one that is continuously evolving.

Therefore I approached these case studies looking for evidence of the interactive process, and ways of defining and explaining it. In looking for ways to explain the use or nonuse of data, I have sought explanations in the character of the data itself, as well as in its environment, the political concerns, and qualities of the people and institutions who produce it and are available to use it. I look for the moments when the indicator became the object of controversy as reflections of their potential significance in decision-making processes.

At times the issues may revolve around the indicator's concept and reveal how the definition of an indicator may focus discussion and bring out underlying issues. Finally, the comparison and study of these two indicators came to illustrate a subtle but significant contrast, and much of the study came to focus on trying to explain this difference, which may be a very important one for future indicators. Although both indicators have had substantial history and use, one, the unemployment rate, is firmly established as part of our policy-making apparatus, above the exigencies of immediate political pressures. It has a permanence and life of its own which inspires confidence in users so that it is taken for granted and accepted by most parties to discussion. In short it has become an institution. The budget, on the other hand, has never established so firm a position, has never been fully accepted, and today is in danger of deliberate extinction by a hostile Administration. Hopefully the comparison of these studies will shed some light on how and why this institutionalization occurred for one, but not for the other indicator, and suggest where such institutionalization may be desirable and possible for indicators in the future.

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PART II

THE UNEMPLOYMENT RATE: STUDY OF A SUCCESSFUL
INDICATOR

PREFACE

Unemployment Figures: Interpretations and Controversy

In the winter of 1971 the U.S. unemployment rate was hovering around 6%, an unusually high level for a period of economic expansion and rapid inflation. Not surprisingly, Nixon's policy officials and staff tried to find encouraging signs in the monthly fluctuations in the rate. Unfortunately, their public interpretations were seemingly at odds with those of the Bureau of Labor Statistics (BLS) technicians who released the data at monthly press conferences and other government economists and statisticians. In January, Secretary of Labor Hodgson saw the 6% rate as "close to cresting" and in February he called the same rate "encouraging" while Assistant BLS Commissioner Harold Goldstein was cautioning against jumping to conclusions, and pointing out the long-term trends in unemployment growth.(1)

Elsewhere in the Administration also, the optimists publicly clashed with the technicians. White House Press Secretary, Ziegler, said the December 6% rate was "not unexpected" and blamed the rate on a recently concluded General Motors strike, asserting there was nothing wrong with Administration economic planning. A spokesman from the President's Council of Economic Advisors, however, termed the rate

"undesirably high" and said it reaffirmed the need for a stronger thrust to accelerate the economy. The Chairman himself, Paul McCracken, agreed with Senator Proxmire at a Joint Economic Committee hearing that the rate was "unacceptable, if not just plain intolerable." When Secretary Hodgson found the February unemployment decline of .2% of "great significance," and Goldstein declared it "marginally significant," (2) the Administration reacted and, in doing so, plunged unemployment figures into deeper controversy than ever. They decided to cancel the press briefings that had been held for many years on the release of the data.

Congress and the press reacted bitterly. House Speaker Carl Albert accused the Administration of muzzling "impartial career officials" and said the end of the briefing clearly demonstrated the Administration's "lack of faith in its own rosy predictions." Senator Proxmire said the public was deprived of the opportunity "to receive unbiased analysis of the basic factors in the economy" and demanded the presence of BLS officials at monthly Joint Economic Committee hearings if they were not going to have press conferences. News articles emphasized that the Administration gave as a reason for cancelling the briefings the "awkwardness of subjecting the professional staff of the BLS to questions with policy implications." (3)

It was not long after this that the White House declared a new policy of issuing interpretations of such economic data from one source in the White House. In midsummer, when the rate had still not significantly declined, the President was finally prevailed upon to

sign a measure to provide massive public employment legislation, not unlike the make-work programs of the Depression, the WPA and CCC, programs which clearly ran counter to his conservative instincts. Finally, in mid-August, the continued high rate of unemployment and inflation led the President to declare a wage and price freeze in the hope of checking both rates. Suddenly, more than ever was at stake for the Republican Administration in the movements of these figures. This dramatic new policy's success would be judged by the data, and reelection could depend on it. In October, Goldstein was "reorganized" into a non-controversial long-term trends analysis job, representing about half of his former responsibility, and another offending BLS official, Chief Economist, Peter Henle, was given a long sabbatical.

At present writing, suspicion and controversy among Congress, political officials, career bureaucrats, and the press continues. The Joint Economic Committee hearings provide a monthly forum for denouncing Administration economic policies. The public is increasingly aware of the controversy as it periodically breaks into the news editorial pages.

Meanwhile, at least three professional organizations have set up review committees to keep an eye on developments in the release of

unemployment data - the National Bureau of Economic Research Conference on Income and Wealth, the American Economic Association and the Industrial Relations Research Organization. In January 1972 the Administration named a high level interdepartmental Task Force to evaluate government fact-gathering on unemployment, with instructions for prompt reporting. Too many people have a stake in the unemployment data to allow the matter to drop.

Objective of the Case Study

Cynics would say that data does not have much to do with political decision-making, and that, in any case, accurate data is of little concern to proponents of one policy or another. This account of the controversy around the unemployment figures suggests that quite the contrary is true. The Nixon officials clearly think the indicator has a good deal to do with decisions or they would not be taking the political risks they have in silencing the technicians. Moreover, groups of many different persuasions feel they have a stake in the data's accuracy and dependability.

Certainly, the time, money and intellectual effort invested in the unemployment figures have been tremendous. The rate has been calculated on the basis of a special monthly sample survey of over 50,000 households. It is the largest such survey in the world, and its principle purpose since its inception in 1940 has been to provide unemployment estimates. Its methods have been refined, analyzed and tested in its 30-year history to a degree that is unequalled for any single

survey, and it serves as a model for surveys in many other countries.

The basic question that the following study will address is how it happened that a piece of data, an indicator, became so important to decision-makers. Why was so much effort invested in collecting and publishing the unemployment rates, and how did its existence and its characteristics come to be so critical to so many people?

The answers lie to some extent in the environment and to some extent in the indicator's basic nature. Its origin was in a deeply felt need to deal with severe economic problems. Its evolution and growth into its present-day role are products of the methods and concepts that went into the indicator as well as the institutions and support that grew around it. All these elements worked together to make the indicator a successful one - that is, a widely accepted, used, and seemingly permanent fixture in our policy-making apparatus. Some of the important factors in this rise to eminence among indicators seem to be its comparative simplicity, the capability of its methods to reflect rapid change with seeming accuracy, its role in economic theory and relevance to one of the most widely recognized and immediately felt public issues of the twentieth century. The openness of the indicator design and maintenance process to scrutiny and change, and the institutionalization of interest group participation have contributed to the indicator's present position.

CHAPTER I

ORIGINS OF THE INDICATOR

The Will Without the Way

1921 was the year when national attention first focussed on the measurement of unemployment. Recurrent depressions and unemployment date back into the nineteenth century. The Federal government had made an effort to count unemployment in censuses as far back as 1880. The start of a sustained national commitment to measure it, however, was in 1921 when President Harding called a National Conference of business leaders to consider the problem of unemployment. The country was coming through a severe depression, and unemployment was obviously high, though there were just guesses about the numbers.

A principal purpose of the Conference would be, according to the Chairman, Secretary of Commerce Herbert Hoover, to inquire into the volume of needed employment and the distribution of unemployment and to recommend measures to ameliorate unemployment and encourage business recovery. (4) Economic dislocations were frequent and disruptive to business, and concern for the lot of the working man was growing. Public feeling was growing that worker and job should be more firmly attached. The report of the Conference stressed that unemployment facts were necessary to plan for relief measures and could help businessmen make better decisions, which might stave off the low points in the business cycle.

Both Harding and Hoover made one point quite clear, however, that the responsibility for remedying unemployment should not fall on the Federal Treasury (5). The solutions should be found through the cooperative action of businessmen and through relief provided by the states. Even the task of information collection and analysis was to be principally a nongovernmental function. The studies that the Conference requested and planned were conducted in the 1920's with private funds. At this time, the U.S. had no employment programs, economic policy for employment, or unemployment insurance. Hoover regarded Federal legislation for unemployment as "paternalism that will undermine the whole system." He viewed the Federal responsibility as simply mobilizing the nation's intelligence. Although Great Britain and several other European countries had instituted unemployment insurance programs, that idea was apparently not much considered.

In any case, the Conference set to the task of measuring unemployment, and, in the process, drew sharp attention to the inadequacy of their information. Their Economic Advisory Committee estimated 3,500,000 out of work, exclusive of farm labor. The Commissioner of Labor Statistics, on the other hand, had estimated unemployment for the Congress only two months earlier as 5,735,000. This discrepancy of over 2,000,000 led the Conference's Committee on Unemployment Statistics to do its own study of available data,

producing an estimate of between 3,700,000 and 4,000,000 unemployed. In what must be one of the lowest points in the history of social measurement methodology, the Conference voted on the number to announce as unemployed, choosing a suitably high range of figures to attract the nation's attention (6). One thing was obvious, that if responsible statisticians confronted with available data could produce such widely differing estimates, then the data was quite inadequate. Certainly the Committee on Unemployment Statistics declared in its report to the Conference that it found the data inadequate. While tremendous precision is unnecessary for most purposes, an estimate which is likely to be off by as much as sixty percent is probably not much good for even the broadest kind of public decision.

The data available for statistics at that time were incomplete and scattered; the methods had to involve much guessing about the missing parts. It was to be twenty years before a substantial improvement would be made in the methods which would permit significantly more reliable national figures. The data consisted of 1) the results of special surveys in 182 cities where the district Directors of the U.S. Employment Service asked such agencies as State Labor departments for their estimates of unemployment; 2) monthly reports of the number employed in a selected group of manufacturing industries, as collected by the BLS; 3) quarterly reports of trade union unemployment in Massachusetts; 4) estimates of reduction in

mining employment based on U.S. Geological Survey data on output;
5) monthly reports on the number working on railroads, collected by the Interstate Commerce Commission; and 6) preliminary tabulations of the number engaged in different occupations according to the 1920 census.

Obviously the estimates varied according to how much credence one gave to each source, how one adjusted for the different time periods of the data collection, assumptions about how well the data collected represented the data not collected, and the assumptions one made about what happened to those once employed in a particular industry. As we did not have in 1921 any kind of unemployment insurance, we could not collect by product data from that program to give even a ball-park estimate of size or trend of unemployment. England was by this time getting unemployment data from this source far better than any we had since their insurance scheme included the great majority of workers, and they had to register as unemployed in order to get benefits. The data was not perfectly representative but far more reliable than anything available in the U.S. (7). We had neither a program nor a commitment to the collection of data.

Not only was the data sketchy and the methodology undefined and ad hoc, but the concepts too were very fuzzy. Unemployment and employment were not precisely defined in the report of the conference or the later studies which followed up in the twenties (8). The assumption was that the unemployed were people who had worked, but now could not find jobs. No agreement was reached on how to deal with the borderline categories, like those who were on strike, too sick or too old to work, or who would only take certain types of jobs. The analyses of the problem do raise these issues, but in some sense it was not necessary to settle them. The methods of estimating the numbers were so approximate, and the available information on sickness or job preferences would have been so poor, that a decision one way or another would have been pointless. When these decisions on the precise definition of unemployment were made, it was not only on the basis of who ought to be considered unemployed, but also on the pragmatic basis of what kind of information was most measurable and useful. Without the latter two criteria much incentive for a decision was not there.

The reasons the Administration, researchers and businessmen wanted the data were strong, but like the concepts, not well defined. There were to be no government programs to deal with the problem, but it was increasingly accepted that the government should provide information that would assist business in dealing with unemployment. Economic discussion at the time centered on the idea of the business cycle. Most developed countries, it was observed, went through continuous boom and bust periods. One cause, according to the National Bureau of Economic Research (NBER)

committee which later studied the problem (9), was that businesses were not well informed on conditions and accordingly made poor decisions on production. Unemployment statistics, particularly very current monthly statistics, could aid the businessmen and also serve to help in determining fundamental causes of the cycles. The important advances of Keynesian theory in explaining economic conditions were, after all, not to come, let alone be widely understood, until the mid-30's. The statistics were also viewed as useful for the vague purpose of measuring the welfare of wage earners and planning expenditures needed for relief. Presumably, they would be used for forecasting future trends although there was not much of a model for doing so accurately.

To review the situation then, in 1921, accurate unemployment data was a high priority item, a focus of national attention. People in many segments of society viewed the problem of unemployment as serious and unlikely to solve itself. Most agreed data was essential to beginning the solution, but exactly how it would be used was still unclear. So the motivation existed for getting the data, and there were some potential uses, albeit vaguely defined ones.

Several ingredients were missing, however, which were not to come together until 1940 when the first really reliable figures were obtained. First, there was no real commitment to do anything in particular about unemployment and thus very little idea about how it could or should be dealt with. Secondly, there was no adequate methodology to produce

even reasonably accurate data. It was agreed that the data was needed quickly and frequently, but, as yet, sampling methodology was not well enough developed to permit fast, reliable information from direct survey. It was not even considered as a possibility. Thirdly, the concepts were still far too undefined for accurate measurement. It would take over ten years to light on satisfactory concepts, though the effort would not begin in earnest until 1930 when the direct measurement efforts began.

Congress is Activated

Meanwhile in the years between 1921 and 1930 research activity on employment and unemployment data continued, as did planning for the development of the statistics. The NBER sponsored extensive work and the American Statistical Association appointed a Committee on Labor Statistics in 1922, which studied the problems and made recommendations from time to time, including some important ones which led up to the questions on unemployment included in the 1930 census. The period was largely one of research, beginning to define the issues and possibilities of unemployment measurement and only marginal changes in government statistical activities. It may be a period which, for unemployment data, is a parallel to the current one for social indicators generally.

Congressional interest, which was to play a critical role in later developments, was awakened in 1928 with the aid of the press. Estimates of unemployment in the wake of a severe recession varied tremendously and the press was highly critical. Administration critics

were claiming unemployment was about 4 million, far more than the Administration would admit. The Senate passed a resolution asking for the figures on unemployment and the Labor Statistics Commissioner replied by saying employment had shrunk by 1.8 million.

The Senate Education and Labor Committee decided to hold hearings on unemployment, the first in a long series in Congress, which were to perform a role in educating legislators and the public and focusing the issues. No special legislation was involved; the idea of federal responsibility for unemployment would have to await some years of experience with the Depression. The hearings were broadly investigatory and focussed in part on unemployment estimates (10) The Committee Chairman was very conscious of press agitation about the quality of the figures and expressed concern that there seemed no way to resolve arguments in Congress without better data on the size of the unemployment problem.

Commissioner Stewart of the BLS testified that direct measurement of unemployment was not feasible and explained the indirect method. Direct measurement, he indicated, would involve a complete census, very expensive and slow to complete. It would not provide data fast enough in any case. He did not propose the sampling method which was later used. The method he used began with the data on employment, collected by the BLS from primarily manufacturing industries. Shrinkage in the figures between good and bad years plus estimates of the behavior of employment in unmeasured industries was the closest

approximation he could provide to unemployment. He stressed that benchmark figures of total unemployment at some point in time were essential to making this procedure work to provide reasonable current unemployment estimates. Other expert witnesses concurred in his views.

The Committee finally recommended (11) that questions on unemployment be included in the upcoming decennial census to provide the benchmark data. Although they were dubious of any Federal role beyond statistics gathering, they did declare that the opportunity to work was a fundamental right. They still considered the protection of this right as the responsibility of individual members of society and employers. Their declaration, however, was a preliminary step toward the policy officially declared almost twenty years later in the Employment Act of 1946, establishing a Federal responsibility for employment. The growing level of public commitment coincided with the growing intensity of measurement attempts.

CHAPTER II

THE SEARCH FOR A MEASURE: MEASUREMENT STRATEGIES AND
CONCEPT DEVELOPMENT (12)

The advent of the Depression assured the inclusion of unemployment questions in the census, and launched an intensive search for an adequate way to quantify unemployment. The search was to require ten years of experimentation with methods and concepts, the effort of numerous groups and individuals, and many mistakes and misjudgments before a generally satisfactory solution was found. Ironically, accurate national figures were never available during the period when they could have made most difference. During the Depression, estimates varied almost as widely as in 1921, and the massive work relief programs and unemployment insurance were all enacted essentially without data on the size of the unemployment problem, much less on the characteristics of the unemployed.

The critical methodological and conceptual developments in this period were of several kinds. One was the development of the stratified random sampling technique which permitted relatively small samples to produce highly reliable results. This made it suddenly feasible to collect unemployment data by direct monthly survey.

Another was in the discovery of ways in which questions asked had to be carefully phrased and interviewers trained to assure that meaningful, accurate information would be obtained. The earliest measurement efforts showed extreme naivete from today's vantage point about the ways in which questions may be misunderstood or ambiguous. Statisticians, bureaucrats and politicians began also to learn how important data presentation is to its acceptability, and how important fair official interpretations were. This lesson, however, is still being learned afresh almost daily in 1972.

Finally, the period saw the gradual evolution and precise specification of concepts of employment, unemployment and the labor force. To some degree, during the period, the definitions changed to respond to pragmatic issues and changing perceptions of the nature of the unemployment problem and to some degree they simply were gradually more completely specified as the measurement process required.

As indicated below, the story shows what kinds of considerations influenced the development of these and how the development interacted with the values and practical realities of the environment. Other indicators are not likely to develop in quite the same overall way, but many of the patterns and pathologies may nonetheless be familiar.

The 1930 Census: Measurement without Theory

Abruptly with the onset of the Depression, Congress decided that the 1930 Census should measure unemployment. The action was sudden since there was doubt about unemployment questions being included right up to the last moment. It also caught economists and statisticians unprepared since most of their attention had been focussed on indirect rather than direct measures of unemployment. Although Commissioner Stewart and others had been calling for "benchmark" unemployment totals for some years, little groundwork had been laid for making the necessary direct measurement. The principal research group, the NBER, had focussed on ways of manipulating employment and population data to measure unemployment indirectly.

The precise definition required for direct measurement was still a major hurdle. Congress had not made clear exactly what they meant by unemployment, the exact purposes the data would have were not yet obvious, and, in any case, economic theory, later to depend on unemployment concepts, was still in its early stages and did not provide much help in making definitions. Accordingly, there were no clearcut criteria on which to define unemployment. Because the issues had been so little considered, the

designers of the Census did not foresee the extent of the problem. Instead of defining unemployment first and then measuring it, they tried to measure it and then, faced with problems of interpretation of results, they realized that they had failed to make adequate definitions.

The Census Bureau was not totally without guidance for its efforts, though it could have benefited from considerably more groundwork. The American Statistical Association Committee on Governmental Labor Statistics had been working for the previous year on the questions on unemployment they proposed for inclusion in the Census. (13) The Bureau considered their recommendations and those of a special expert committee they appointed to aid in framing the questions. They also had the 1929 recommendations of the Senate Committee on Education and Labor that unemployment data be collected as a kind of benchmark which would permit continuous unemployment estimates to be derived in later years on the basis of employment data. (14) The Bureau hired an economist particularly to supervise this aspect of the Census. (15)

Nonetheless this effort to measure unemployment was a complete fiasco. Most of what was salvaged from it were lessons about what not to do. Certainly the unemployment figures themselves were not accorded much respect and did not serve as a widely accepted benchmark in later years. In fact, they were greeted with a shower of criticism, in part because of the ambiguity of the information and, in part because of

inept handling of the release of the data.

The questions in the census represented an attempt to keep the precise definition of unemployment open and flexible so that different people could assemble the data in ways which suited them. Interviewers first asked whether the respondent had a usual gainful occupation, "gainful" implying work for pay or profit. If he or she said yes, the next question was whether the respondent had worked at all on the day preceding the interview. If not, then a further series of questions was asked about the reasons for the idleness, and the circumstances surrounding it. Ultimately, all the idle were classified in 7 categories, A through G. The categories were differentiated by whether the person technically had a job or not, and whether he was able to work or looking for work (16). The idea was that for some purposes people would want to group different categories together, and in any case, it would absolve the Bureau of the responsibility of deciding exactly who should be called unemployed.

The problem with this decision not to decide was that it left the results open to charges of politics. In fact it gave the Bureau and the Administration a lesson in the politics of statistics - a lesson which the statistical bureaus have taken to heart but of which later administrations could well be reminded. The Hoover Administration, eager to prove that unemployment was not as bad as commonly supposed, pounced on some early census returns and triumphantly announced they showed only two percent unemployed. Although the release indicated the

figures were only preliminary, the action set off a tremendous furor and numerous attacks on the data as unrepresentative and misleading. The Commerce Department had reported results of the first 1/4 of the returns for only category A of the idle, those not working but actively looking.

In the first place there was no prior agreement that this really was the only group to be termed unemployed. Category B, those on layoff without pay, were, as it turned out, very unlikely to get their jobs back, and most analysts seemed to consider them equally unemployed. Those out of work and not looking, for example, could be convinced no work was available. Examination of the data in detail suggests that a group at least 40% larger than category A would have to be considered in any relief programs, and planning for relief was a primary purpose of the statistics.

Not only was the definition not agreed upon, but also the rate seemed obviously too low. It did not coincide with experience. Newspaper and magazine criticism was particularly severe on this score. The New York World (17) said "the Department of Commerce is again offending common sense putting forth alleged figures of unemployment." The New Republic called it an "attempt to minimize the number of the unemployed," and said "it is impossible not to infer that the administration was glad to have the underestimates pass as good currency." (18) While it may not have been precisely clear at this stage what was to be called unemployment, one thing was clear, the Administration's definition was not it.

Not only had the Administration been a bit free with its assumptions about definitions, but it had also been very casual in its methods and less than open to the public about the inadequacies. The early returns, for one thing, were heavily weighted in several areas, which did not yet fully reflect in employment patterns the effect of the depression. Moreover, there was a high percentage of rejected cases due to failures to fully complete the form. The effect of adding these would have greatly increased unemployment figures. The statisticians calculated the 2% rate on the basis of the number of unemployed in relation to the total population, although a well-established statistical principle was that rates should be considered in relation to the population at risk, in this case gainful workers (19). Otherwise the rate could fluctuate wildly for reasons quite unrelated to the issue. Unemployment could go up while the rate went down just because the birth rate was increasing. Later surveys used population at risk as the basis for the rate.

The controversy led to the resignation of the Census Bureau specially hired economist, Charles Persons, who was supposed to analyze the data. Instead he wrote critical articles for several professional and popular magazines (20). Former Commissioner of Labor Statistics, Royal Meeker felt compelled to comment as well and issued a statement that although the figures were probably correct, they invited misunderstanding because of the way they were issued and had been grossly misinterpreted because of the narrowly limited definition of unemployment. (21)

He, like Labor Statistics Commissioners before and after him, was very sensitive to the importance of issuing only the most accurate data, with suitable explanations of their limitations, in a non-political context. Their credibility and that of the entire statistical system was at stake. This was only one of many recurrent struggles between technicians attempting to maintain their standards of accuracy and politicians wanting to establish control over presentation and interpretation. The politicians' efforts have often backfired, but they continue to make them, nonetheless.

The upshot of this controversy and the deepening of the Depression was that the Census conducted a second inquiry into unemployment in January 1931. The interview schedule involved precisely the same employment questions as the decennial census, but without the other questions, and the special census covered 21 selected areas. The results simply served to emphasize the inadequacy of the questions, the interviewing strategy, the categories, and definitions. The relative proportions in each of the groups of idle were quite different. The "B" category, on layoff without pay, for example, was relatively higher and the voluntarily idle group was only one fourth its former size. The length of the idleness period was higher for the A category and lower for the B group. The report on the census attempted to account for the differences by changes that had taken place over time (22). Certainly, economic conditions were changing and January would be expected to be a very different sort of month from April, when the original census was conducted, as far as the labor

market was concerned. However the changes were so many and complicated, that no fully satisfactory explanation was given in these terms. Even the official report suggested that the questions may have been understood in varying ways by interviewers and respondents, and that the relevant information may have been concealed because of the categories used or not even obtained.

Other commentators were more blunt. Many became convinced that one could not expect to get good information on the reasons people were not working. Either they did not know all the facts themselves or would not admit them. For example, how could they tell if they were permanently laid off or not? Moreover there were many failures of the interviewers to fill in portions of the questionnaire in the original census, in particular, to fill out the unemployment questions, perhaps because of the low remuneration for doing so. Dr. Persons estimated (23) that for the State of Delaware the number reported as unemployed would have been increased by fifty percent if these had been included in the tabulation. This was only one of many issues in the motivation and understanding of interviewers which were to be gradually uncovered, but not really well dealt with until close to twenty-five years later.

The whole approach to eliciting the information was fraught with possibilities for error which were only to be uncovered through long, painful experience. Morgenstern summarizes most of these well (24) and it seems worthwhile to keep his list in mind as we examine the development of the unemployment indicator. It has been subject to all

of the difficulties at various times, though today most of them have receded into relatively minor problems.

The first source of error is respondent error, lies and mistakes. The respondent may not want to admit he is not looking for a job or he may not remember how long it was since he last worked. Housewives, who were the usual respondents, might not have full information on all household members. Observer error was the result of inadequate training and instruction and of course, like respondent error, was far more likely where questions were ambiguous or ambiguous answers were possible and observers had to make their own judgments. This was definitely the case with the 1930 census, which involved an enormous instruction book for classifying the numerous causes for idleness which might be given. (25) It was not all-inclusive, but in any case, one could not count on all agents to memorize it. Census agents for the decennial census at least, were part-time political appointees, almost invariably without experience in this sort of activity, and unlikely to have professional standards to meet. They could misunderstand answers, misinterpret instructions and carelessly record or miscode the results. It became obvious that they had done all of these things in 1930 and 1931 to an unknown, but considerable, degree.

The other principal source of error, which aggravated both observer and respondent error and permitted gross misinterpretations, was due to the fuzziness of concepts and categories. The recognition of this problem was an important result of the censuses and provided considerable

impetus to an effort to define clearer, more objectively measurable categories. The groupings clustered people who did not necessarily belong together for the purposes of most analyses. Often groups overlapped; people had more than one reason for not working and were arbitrarily attached to one or another group. The rationale for the categories was unclear when, for example, some who were desperately in need of work might be classified together with others uninterested in it. If the rationale and purpose of the classification had been clearer, the decision rules for assignment to categories might have been clearer, though borderline cases always exist.

The concepts also provided only very ambiguous information on part-time workers, which seriously complicated interpretation of the data. In general, the intention was to exclude information on part-day employment entirely since it did not seem to be a serious problem and was very likely to be a voluntary arrangement. (26)

But anyone with any work on the day preceding the census was considered equally employed. If the person was employed on the day preceding, he was returned on the schedule as employed and no further information obtained. The job might have been a one-time or casual job and he might have been very actively searching for a job. Those who did not happen to work on the previous day, however, were closely questioned on the amount of work they normally did and whether they were looking for a job. Clearly the reference period of one prior day, which was chosen

for its immediacy to avoid the problem of failing memories, was arbitrarily short. The categories among the employed, unemployed, and part-time were not all spelled out. The categories were not designed according to the critical rule that they should be all-inclusive as a group and mutually exclusive within the group. The result was that some people who, most would agree, were basically unemployed, were counted among the employed and vice versa. This became obvious as people tried to interpret the results, and compare the two censuses.

The two unemployment censuses of 1930 and 1931 served primarily to point out, in a rather dramatic way, how far away we still were from making adequate measurements in this area. Concepts would require more careful thought, questions would have to be more carefully designed and capable of simple, objective response. The psychology and training of interviewers and motivations of respondents would require far more study before we could have confidence in our unemployment data.

Concept Formation: An Overview

The concepts involved in the census were not only too fuzzy and ambiguous to be of much use for immediate analysis, they also turned out to be fundamentally inappropriate for their intended principle purpose: to provide benchmark data for the ensuing ten years. The concepts were not even comparable with those involved in other

existing data on employment, which were to be used in conjunction with these unemployment figures to provide future estimates. The concepts changed because of this lack of comparability and the fact that the Depression changed labor market conditions and therefore perceptions of the problem of unemployment. Moreover, the search for ways of specifying the concepts in objective detail contributed also to a gradual evolution of definitions to a set which is basically the one we have today.

The experience of this period demonstrates several of the basic contentions of this dissertation. It was essential to the measurement of unemployment to develop satisfactory concepts which made sense both internally and externally. That is, the concepts had to have a consistency and logic of their own and also had to fit with community perceptions and values as well with some reasonable model of reality. The potential use of the data and the theories implied in such use had to guide the choice of concepts. So long as the issues had not been well thought through and at least some of the potential strategies identified for dealing with unemployment, it was difficult to select the precise definition. On the other hand, many aspects of the definition which became the basis of the present day series, evolved in a de facto way, out of the procedures chosen for the measurement process. Although there may have been clear concepts guiding the choices of measurement procedures, we find little evidence of what they were. Rather, we have to deduce the underlying concepts from the chosen measurements,

since there are few statements of full definitions. The evidence suggests that the concepts took shape along with the efforts to measure them, and are therefore, to varying degrees, the product of considerations of economic theory, pragmatic questions in the difficulty of measurement and the relative size of various borderline categories, and finally current value judgments about what issues or individuals were important. (27)

The Major Concepts: Definitions and Issues

The basic concepts necessary to the measurement of unemployment were three - employment, unemployment and the population at risk, that is, for this purpose, the population capable of being employed or unemployed. The concepts may appear to the reader to be straightforward enough ideas - certainly they must have appeared so to many responsible persons in 1930. In the effort to classify people in the various categories, however, a good many decisions turn out to be far from obvious. The best way to settle them may depend on the purposes of the classification.

Population at Risk. These are the people subject to employment or unemployment, and their number is critical to any calculation of rates. Until the mid-thirties this population was defined as gainful workers, all those over ten years old with a usual occupation for pay or profit. Questions about unemployment in censuses well back into the nineteenth century are based on the idea that this is the relevant group. Only those with gainful work were asked further questions then,

just as in 1930 and 1931. For various reasons, which will be discussed in greater detail in the next section, this concept of the population at risk was not very useful. A lot of gainful workers grew old and no longer employable, and a good many would-be workers without any prior occupation sought work. For reasons which I will elaborate later, the gainful worker figures were inadequate for comparison with other data to estimate unemployment. In other words, the estimating methodology required another concept. Moreover, the number without gainful occupation and needing work, increased enormously in the decade, and could no longer be ignored.

Therefore, the concept of a force of gainful workers was gradually replaced by the more amorphous labor force idea, representing generally those in the labor market. This group had no simple defining criteria and ultimately came to be nothing more than the combination of those defined for various reasons as employed and those defined as unemployed.(28) This was a convenient, but not altogether logical solution.

The issues involved in deciding who is a member of the labor force have to do with who is too old or too young or too disabled to work. They also have to do with what kind of activity takes precedence over labor force activity so that anyone doing it should be classified as "out of the labor force." For example, perhaps a student or housewife should be automatically classified as out of the labor force

no matter what else they may be doing since that is their primary activity. In fact, however, since the labor force concept has its definition only in terms of the definitions of employment and unemployment, it turns out that most issues were settled one way for the employed part of the labor force and another for the unemployed part. The lower age limit is common to both, but in 1972 one may be called employed if one is also a student but not unemployed. Illness might keep one out of the labor force count if one had no job, but not if one had a job. The labor force is a convenient idea to provide a base figure for rates but not one with life and logic of its own.

There is no particular reason why the labor force must be such a passive concept as the sum of two others. It could have been, for example, the group of persons who might potentially work under certain circumstances. These might have been determined by demographic or other criteria separate from employment and unemployment. Some members of the labor force would fall into some third group, although employment and unemployment sound like dichotomous attributes, when one examines the concepts, one realizes it is quite possible to belong to neither group and not be obviously out of some reasonably defined labor force. The implication is that the labor force concept as it has come to be defined is not after all a measure of population at risk. This fact has come to cause considerable difficulty in recent years because the size of the measured labor force

has fluctuated so drastically in ways still poorly explained or predicted. If the actual potential employed and unemployed were measured, this would provide a fairly stable base for the rates and make possible better analysis of fluctuations of total employment and unemployment.

Employment. An employed person, obviously, is one who is working. A good many people are easy to categorize, in particular those who work a standard full-time week and get pay checks regularly. The question arises of how much work they should do to be called employed, and whether being employed should preclude being unemployed. In other words, can a person be considered partially unemployed? The answer has been, no, until quite recently, but the decision is one which can be argued either way quite readily. After all, many people may be fully employed while working less than some full-time standard number of hours, because they are not available for more work. Others may be desperately looking for more work than they have. If there is no intermediate category between employed and unemployed, then some precedence rule is required as to whether the fact of working or the fact of job-hunting is to be the criterion to classify an individual.

Secondly, in defining employment we confront the question of unpaid work. Surely the entrepreneur, even the one who is losing money is employed, so we cannot make wages the single criterion for

employment. Once we dispense with the wage criterion we then have to decide what kinds of work we choose to term employment. Is the housewife employed at household chores? And what about the teenager who works on the farm after school? At first these questions were not really settled and interviewers often used their own judgment, but gradually all the details under which various activities were included were spelled out. The criteria were to be partly pragmatic, and partly theoretical, including most activity which entered into the market economy.

A third major problem in defining employment precisely has to do with people who have jobs, but for some reason are not working. It may be clear that the person on vacation with pay is employed, but the one on vacation without pay is a little more dubious. The one on layoff who has been promised his job soon, or the person whose new job does not start for a few weeks, is even more difficult. And then there are the people whose jobs are waiting for them when they get over some temporary disability. The decision rule for these cases is not obvious. If we are interested in knowing employment figures in order to gauge the actual amount of economic activity or number of workers at work we would make one set of decisions, but if we want to know the number of persons without wages for relief purposes, the decisions would be different. And if we wanted to know how many jobs to create for people, we would require yet another configuration

of the concept. Clearly no choices will be ideal for all purposes, but each choice will affect the data and our perception of the problems. Unemployment. This is the hardest concept of all. In a general way the unemployed have been considered to be those who wanted work but could not get it. Unfortunately, this easy definition does not begin to provide all necessary criteria. While it is clear that the worker laid-off at the factory and looking desperately for any kind of work to support his family is unemployed, few other types of people are as easy to classify. There are the borderline cases mentioned under employment (above), where it is unclear whether it really should be labelled unemployment. There are also cases of people without jobs who would like them if someone offered, but are doing nothing to find one. In some sense they are in the labor market as they may suddenly appear on the employment rolls without ever appearing as unemployed. But, on the other hand, they are very difficult to identify. Other people might be looking for work but do not really need it and will only accept under stringent conditions. Still others may be desperate for work but too discouraged to do anything to prove it.

The difficulty is setting up objective criteria by which to judge unemployment. In some sense unemployment has to be defined as a state of mind. Not all people without jobs would call themselves unemployed certainly, but if we go by people's assessment of themselves, we will have a very unreliable measure. Analysts finally were to set up the activity of looking for a job as a criterion for unemployment

(see p. 114) with various modifications for special cases. The decisions were to be based on the nature of the major groups generally considered unemployed at the time and on the practical problems of measuring unemployment objectively.

Development of Sampling Methods

A critical element that would have to be developed before a dependable unemployment indicator could exist was a new methodology. Countries like Great Britain, which had an unemployment insurance system with fairly complete coverage, had been collecting reasonable data as a byproduct of the activity. The U.S., however, was not to pass unemployment insurance legislation until 1935, and then it was only partial in its coverage. In this country, work continued therefore on the development of methods that were ultimately to produce far more complete and accurate data than any other nation.

In 1928, as Commissioner Stewart testified before the Senate, only two methods of measuring unemployment were generally visualized. One was through a complete enumeration of the population, but this had many disadvantages. (29) It took time and a great deal of money to perform a census and to tabulate the results. The Committee on Labor Statistics of the President's Conference on Unemployment had, back in 1921, indicated that unemployment data was needed on a monthly basis if it were to provide usable information. Not recognized were the possibilities for error in a census with its thousands of slightly trained agents and the possibility of bias as the agents are often systematically unable to track down certain groups. The census was regarded as cumbersome but accurate.

The only other method Stewart and many others in the ensuing years envisioned was the indirect method of estimating unemployment by subtracting employment estimates from estimates of the labor force (30) (described more fully on p. 104). This method was relatively inexpensive and had the advantage that it could be done monthly and the figures kept quite current. Its disadvantage was that it involved so much guessing that estimates varied widely and were not at all dependable. In 1928 Commissioner Stewart talked of ways this method might be improved in the future, but, by the mid-thirties, it must have been obvious that the methods could not be perfected to produce dependable data. Something else would be required.

The method was to be that of the sample survey, which today permits the U.S. to make highly accurate unemployment estimates within three weeks of collecting the data. The method allows greater accuracy than a census and is, of course, far less expensive. The accuracy of the method was to create a highly sensitive indicator, as well as a dependable one. It seems quite likely that many of its uses would not have developed without these qualities.

Sampling, of course was not a new idea in 1940. The idea of evaluating the nature of the whole by testing some part of it is surely as old as human experience. The idea of selecting observations in some systematically random way to get a "fair," or representative, sample is more sophisticated, however. Although the theory of probability was

established in the eighteenth century, it was apparently not applied to the drawing of samples until the early twentieth century (31) Tables of random numbers, not published till 1927, were to make random sampling considerably easier. The idea of increasing the efficiency of a sample by selecting deliberately from the full range of population types was applied in nineteenth century studies. The method for combining the two approaches however, and producing accurate total population estimates on the basis of small, carefully chosen samples was not to be developed until the twenties and thirties.

Sampling techniques were developed gradually and in a rather dispersed way in such areas as agriculture, mining and population studies. The developments of the thirties in the U.S., including the efforts to develop a way of measuring unemployment, were to provide the energy and focus to make the sample survey a practical, efficient method. The institution of the large-scale work projects like the Federal Emergency Relief Organization and the Work Projects Administration (WPA) was to provide the manpower for experimental and other surveys and research into the techniques. Depression conditions and massive Federal programs demanded far more statistical information than had previous eras. Therefore university and government statisticians were mobilized to plan reorganization of statistics and new activities (32) The Central Statistical Board was set up in this period to oversee, encourage, and coordinate mushrooming statistical activity. This gave methodological developments some focus and permitted the

communication between different groups which had been lacking and slowing the development of sampling. Certainly the whole statistical effort in the thirties was catalytic for the development of sampling methods. Many of the essential ingredients had existed for some time but now came together.

Though many of the techniques had been developed in various different contexts, sampling in 1930 was not widely seen as the answer to statistics gathering problems. It took time to get the notion accepted that sampling produced reliable estimates. The outline of events relating to development of the unemployment sample survey is approximately as follows. Throughout the thirties and even back into the twenties, state and city officials did sample surveys of unemployment in various local areas. The procedure was not efficient enough, nor the cities rich enough to contemplate doing these on a regular basis, but they did provide a body of experience for others to draw on. There was considerable Congressional and press pressure for another unemployment census, but the method was expensive and cumbersome and had not proved itself well in 1930 (33). Moreover, the Roosevelt Administration was not eager for national data which would almost certainly show how poorly the economy was doing.

In 1937, however, Roosevelt finally asked for a census and Congress readily passed an Act setting up a temporary Census Commission to conduct a one-time unemployment census (34). To cut down on the expense of enumeration

this was to be a self-enumeration. The unemployed would fill out postcards and return them. The biases that are inevitable with such a self-selection process did not particularly bother Congress as they felt all who wanted jobs, who were thus deserving of their concern, would fill out the cards. It is probably significant that the Census Bureau was not to conduct this investigation. Their standards would have required a better sample selection.

The methodologists, however, managed to add onto the census a special Enumerative Check Census which was a canvass of families on a random selection of postal routes. The purpose was to check for underenumeration of the unemployed and identify which groups these were. Of course, this check census as we now know provided not just as much information as the registration, it provided more and more accurately (35) Statisticians concluded that the check census showed only 70% registration of the unemployed and that there were a number of important biases in the data from registration. The unemployment of women was relatively too low because they tended not to register, whereas the registration of "emergency" workers as unemployed was close to 100%. At this stage, the sample survey was still a new idea, particularly, in the political arena, and Congressmen would have been unlikely to trust its results alone.

Statisticians, however, were satisfied and now convinced that the sample survey was a more practical alternative to census or indirect measures of unemployment. A basic set of concepts and questions were

included in the check census which seemed to work fairly well. Accordingly the WPA, with its vast staff and considerable incentive to discover the quantity and nature of unemployment since its responsibility was to provide jobs, began work in 1937 to develop a sample survey of unemployment (36). They studied the concepts and methods developed to that time and did experimental surveys. Finally, in December 1939, when the Depression was about to be over, they instituted the Monthly Report on the Labor Force. It was a survey of about 25,000 families chosen randomly within population groupings clustered by variables found to have important relations to the amount of unemployment, like geography and industrial composition of the area. This stratified random sampling approach was to be considerably improved upon in later years, but the sample survey itself has continued uninterrupted down to the present. When the WPA was disbanded during the war, the Census Bureau took over the data collection and continued the survey. The present data on unemployment represents then an essentially uninterrupted series since 1940 when the major methodological breakthrough was finally made.

Evolution of the Concepts

In 1931 it was clear that the concepts used for measuring unemployment were unsatisfactory. They did not provide useful information or permit unambiguous measurement. To arrive at adequate concepts, a considerable period of trial and error would be required; the direction of change was not obvious in 1931. The evolution and choices of concepts for the 1940 survey were the result of the demands of the unemployment estimating methodology, of the realities of Depression unemployment and perceptions of the nature of the problem, and of practical decisions about which concepts were most readily measurable.

Much effort went into attempts to estimate or measure unemployment in the thirties. Business and labor as well as general research organizations published regular estimates of national unemployment rates throughout the period - estimates which differed widely though they followed the same basic methodology. Unemployment censuses and sample surveys were done in many cities throughout the period to get information on local unemployment. These provided a testing ground for questions and interviewing methods and, through their procedures, helped to define concepts. Unemployment, though poorly measured, remained obviously high and provided a constant incentive to develop adequate measures. As massive relief programs were enacted, public and Congressional demand for measurements to plan and evaluate the programs increased, and the purpose and focus of such

measures became more sharply defined. There was considerable demand for another national unemployment census, but none was made until 1937 because of a combination of methodological difficulties and Administration reluctance. The idea of a national sample survey, which would overcome most methodological difficulties of the census, did not gain wide currency until after it was an established fact.

The Gainful Worker Concept. The idea that only those with previous employment should be considered as liable to unemployment dated back into the nineteenth century. The rationale for it was principally that the goal was primarily a census of occupations, rather than of employment. In any case, the gainful worker idea must have seemed the obvious way to distinguish, among a group of people, those for whom it would be relevant to ask further questions about time worked and not worked. In the nineteenth century, in many classes, almost anyone was liable to work who could find a job, wives, children or the elderly. It would have been hard to identify the kind of demographic patterns then that we now tend to find characterizing those prepared or not prepared to work. For some reason unemployment of those who had never worked was not perceived as a major problem.

During the Depression, however, this perception changed. The Depression was the longest lasting and most severe of many depressions. As time passed, it became increasingly obvious that the number genuinely in need of work, but who never had been able to acquire a gainful

occupation, was a sizeable and growing group. The sample surveys done in the period reflect this increasing recognition, as a study of their concepts and methods shows (37).

A steady trend existed in which later surveys tended to question all looking for work instead of solely those with gainful occupations as the early surveys did.

Inadequacy of the Concepts for Unemployment Estimates. Another reason that the gainful worker idea and some unemployment definitions were gradually abandoned was a more subtle problem which had to do with the way unemployment was estimated. The basic principles behind most estimates were developed in the teens and twenties and have already been partially described. The estimates were made by a number of groups, including most notably the AFL and the CIO, the National Industrial Conference Board (NICB), the Alexander Hamilton Institute and Robert Nathan, who made them at the request of the President's Committee on Economic Security, which was formed to plan Depression relief strategies. At least two prominent newspaper columnists, Dorothy Thompson and Arthur Krock also got into the estimating business. Notable for its absence from this list is the BLS or any other federal statistical agency. The data and methods were of such dubious quality that such agencies shied away from making "official" estimates. Certainly the estimates of "shrinkage" in employment which the BLS provided in 1928 were the target of severe attack.

Although the estimates of these groups varied widely, the methods had many general features in common (38). All the estimates were derived by subtracting estimated employment from the estimated labor force. The labor force size was estimated with varying degrees of care, starting from the bases of the 1930 census data on population and gainful workers. Several estimates considered only the population increase since 1930 and assumed a constant proportion of gainful workers. Others made adjustments for the changing age composition of the population, which during the thirties involved a relative increase in the working age population. Some groups also considered the effect on the proportion of gainful workers of changes in race and sex composition of the population, immigration patterns, child-labor practices and school attendance. Adjustments necessarily involved somewhat crude approximations and the assumption of the continuance of past trends. Specifically, the method implies that the 1930 gainful worker percentages were normal. In the thirties, however, as secondary workers entered the labor market in search of supplementary incomes, the assumption was increasingly hard to make. In any case, it is not difficult to see how it could happen that estimates of the labor force differed widely.

Estimates of employment were fraught with even more assumptions and the necessity for individual judgments and guesses. It was in this process that 1930 unemployment figures were intended to provide important benchmarks. Most estimates did use them as such but only with considerable adjustment, which brought the whole procedure into question and caused considerable discrepancy in the estimates.

Although the 1930 census did not actually measure employment, it purported to measure unemployment and the population at risk (gainful workers) so the number of employed in 1930 should equal the gainful workers minus the unemployed. The trouble was that the census did not define and identify clearly the unemployed. Instead they provided categories of idle persons, many of whom might be termed employed for certain purposes. This meant that the estimators had to decide what proportion of the total of 7 categories of idle belonged among the unemployed. Many, after all, had jobs or pay. The total in the census of these was 3,888,814, and Robert Nathan and the AFL arrived at 3,400,000 as the adjusted total of those who should be called unemployed.(39) The NICB, on the other hand, calculated an adjusted total of 2,932,000 unemployed (40). This was to help give them consistently lower estimates than the other groups throughout the decade.

In addition many felt the 1930 unemployment concept of idleness classes did not include all the unemployed. Either the concept of questions resulted in underenumeration of the actual unemployed in 1930. The evidence offered was generally that an adjustment backward of the 1931 special census by employment indices suggests that unemployment volume was understated. Nathan, the CIO and AFL all added 600,000 to their 1930 unemployment figures to make the adjustment.

The NICB estimates, which did not involve addition to unemployment figures for underenumeration, were of dubious value. Projecting back to September 1929 on the assumptions that their figures represented

actual unemployment in 1930 and the difference between gainful workers and unemployed was equal to employment, one gets negative unemployment in 1929. The number employed in September 1929 was certainly larger than the total gainful workers or labor force calculated by the NICB. This kind of problem led to a discussion of how to deal with so-called "additional workers" entering the labor force (41).

Many seemed to feel that the phenomenon represented only workers temporarily joining the labor force for some reason - good or bad economic conditions. These, many argued, were clearly not worthy of the same kind of consideration as the "regular" workers. This was one of many ways in which value judgments crept into analyses. Certainly the orientation of the NICB towards business rather than labor was not coincidentally related to its espousal of this view.

The difficulty with these unemployment estimates was not simply that they varied widely, but also that they were used to calculate employment, to provide base year or benchmark data. These employment figures were compared with employment data from other sources in later years to get current total employment and unemployment estimates. The employment data used in the thirties was from a variety of sources. The BLS collected wage, payroll and manhour data in a monthly sample of nonagricultural establishments. The sample, however, did not cover all types of industry and was poor on small or new firms. Other agencies compiled their own employment data or indices, as did the Interstate Commerce Commission and the National Consumer Section of the

Commerce Department, for example. Unemployment estimators applied indices of the change in employment from year to year to total employment figures from 1930. Total employment was not available in later only partial employment indices. Obviously benchmark levels were critical to later calculations. These later figures would not be trustworthy, however, insofar as their concepts differed from the benchmark concepts.

The 1930 concepts of employment, essentially the residue of gainful workers not unemployed, were not readily compatible with the employment data. Many persons carried on payrolls in a given month would show up as unemployed because they did not happen to work on the day preceding the census. This problem was due to the fact that the time periods of the census and the employment data collection did not match. Also, however, people were carried on payrolls even when they were laid off, on the assumption they would be back. Moreover, since employment data only covered some industries and types of firms and census data covered all individuals, considerable extrapolation and many assumptions were required to fill in the gaps. The 1930 definitions for agricultural employment were apparently accepted by most estimators, but when the results of the 1935 Census of Agriculture came out, they showed that about 2 1/2 million more persons were employed in Agriculture than most estimators figured, by extrapolating from 1930 figures. The discrepancy had clearly to do with the counting of unpaid family labor, which was not clearly and objectively defined for measurement until 1945.

In short, then the concepts defining in 1930 the population at risk, the unemployed and the employed, were too vague, matched too poorly with concepts behind other data and, in some important ways, failed to include all the relevant population. The fuzziness of the concepts and the areas left open for judgment led to wide discrepancies in unemployment estimates. This was a particular problem since unemployment even at its greatest was relatively small in comparison to total employment and total labor force, so minor differences in the estimates of these could produce relatively large percentage differences in unemployment.

The gainful worker definition of population at risk did not prove very useful to these estimates or to sample survey designers after the mid-1930's because it did not predict the size of the labor force well, and was not readily usable in conjunction with current employment information. Sample surveys also were intended to provide benchmark levels to compare with local employment estimates, but if only gainful workers were counted, it would be hard to account for rises in employment totals due to the entrance of those never counted.

Forces Shaping the Concepts. The concepts that finally were to emerge in 1940 as the basis for the labor force data series were determined by several kinds of factors. The requirements of economic theory played a relatively minor role. In fact the unemployment indicator was as much a social as an economic indicator and was designed to reflect on the social problems of unemployment as much as on the economic ones.

In any case, the concepts were not defined by some prior standards and then measures chosen to approximate the concept. Rather the concepts emerged from a process of measurement efforts and were rooted in reference to contemporary values and actual situations, neither of which was immutable.

Although clearly some general views of the nature of employment and unemployment guided the process of measurement in the thirties, many aspects of these concepts, both in details and in the fundamental respects, were worked out in the process, and because of it. The process involved interviews, and, therefore, questions had to be chosen, phrased and placed in some order. Enumerators had to be instructed about the meaning of the questions and their answers to guide their decisions on coding responses. Tabulations had to be made and responses grouped. Each portion of this procedure involved a further specification of the concept. Moreover, the difficulties involved in different parts of the process tended to dictate decisions about the concept. In other words, the chosen procedures might well be the easiest or most reliable rather than those suited to producing an ideal concept on theoretical or other grounds. One could not define the concepts fully without reference to a good many measurement procedures and instructions, which would not necessarily follow strictly from a broad conceptual definition of the indicator.

Not only did the exigencies of measurement methods shape the concepts, but also prevailing values and perceptions of problems at

the time affected decisions, as did the current size of groups that would warrant special adjustments. Moreover, views about the way the problems could be solved and the role the indicators might play in planning the solutions also influenced the way it would be defined in detail. In other words the concept was the product of a current and very likely temporary situation and views. The concepts crystallized at a particular moment in time tend to capture the ingredients of a set of values and perceptions which happen to prevail at the moment when the data series began. It will be shown later that these concepts are not always equally suitable at a later time but that they tend not to be readily changed. They do change, but only lagging considerably behind changing methods, situations, and values. At least, if we recognize the relativity of the concepts, we need not think there is something sacrosanct about their continued maintenance in a particular form. There are other reasons to maintain some continuity of concepts, but not that they represent some inevitable truth. Likewise, in designing an indicator, we should not delude ourselves into believing we are capable of defining the perfect concept.

The observations in the next sections tend to support the view that one nation's concepts are not necessarily exportable to another (42). This is particularly important with the unemployment figures because U.S. "success" with these data has led to a considerable effort to transfer the results of our experience to many other nations and institute similar unemployment series. If concepts and their validation are

rooted in existing problems and perceptions and in the nature of respondents and enumerators, then, just as the same set of concepts may not be equally useful over time, they may not be equally useful over space. Space is a bigger problem than time in that we can assume a slow change of the concepts through time, but a short-term continuity of relevance. Although perhaps we can transfer measures from one similar country to another, it is more difficult to be sure of the important ingredients in the similarity.

In particular for unemployment measures, the nature of work and of leisure may be very different in different types of societies. In fact the whole organization of life is apt to be different and it may be impossible to define "labor" in a way that will refer to the same class of human activities in all societies. Much productive work may be done on a communal basis so that it does not enter into a market economy and receive pay or profit. Are all the participants then idle, as they would be by our definitions? Or if we alter our definitions slightly to define this as work then do we classify as employed all the small children and grandmothers who participate in what may be also a ceremonial or social function? In a very much agrarian society it seems that work and leisure are not so well separated as they are in more industrial societies, and the attempt to apply some universal standard definitions to both would only obscure what was really going on.

Although this is an extreme example of the possible contrasts, the next few pages should suggest how even smaller cultural differences could influence the appropriateness or validity of the concepts. It seems likely that concepts must grow out of a situation and even somewhat altered versions of measures suitable in one culture are not necessarily appropriate in another. The problem may be more fundamental. The nature of labor may differ as may be the purposes of measuring some involuntary lack of labor.

Unemployment and Economic Theory. Economic theory did not play a prominent role in the development of unemployment measures though it may have had a kind of background influence. The majority of the development of the indicator was done by statisticians. The purposes had to do with immediate problems of policy and programs at a time when economic theory was little used to guide them. Moreover, the issues were seen as social problems as much as economic ones. It was an issue, not just of diagnosing the economy, but also of how to deal with the people who were unemployed. The indicator had to provide useful information about who they were and to identify those deserving of aid. In this respect it was a social indicator.

R.A. Nixon and Samuelson, writing in 1940 (43) say that unemployment was usually conceived of as the difference between "full" and actual employment. "Employment is full", they continue "when individuals work as much as they would be willing to work at a given wage."

It is the short-run real supply of labor and might be measured by the difference between the total manhours, per month, for example, which people wish to work and the total manhours actually worked.

This is only one of a number of possible ways of defining unemployment in terms relevant to economic theory and it does involve a number of assumptions about the nature of the labor market and wage expectations. It is not necessary to go into these in detail. The purpose here is simply to suggest the ways that the requirements of economic theory may diverge from other demands for the indicator. Economic theory is more concerned with the quantity of labor than with the number of individuals, but unemployment has always been measured in terms of people rather than the quantity of work they want. This has been because of the practical measurement problems of finding objective ways of getting answers to the hypothetical problem of how much work a person would actually take if offered. It has also been due to the interest in knowing the number and characteristics of individuals unemployed—an objective primarily related to planning of programs of relief or remedies directed at individuals rather than the economy.

Obviously also it is very important for economic theory to count all those who are in the labor market but not to count any as unemployed who are not actually available for work. The final concept departs from these ideals in a number of ways, most notably that many people are prepared to take jobs although they are not actively looking and thus are not counted as unemployed. The criterion the economist would

use is presumably whether such persons actually influenced the labor market if they did not broadcast their intentions. Ideally the economist would like the unemployment measure to include some notion of the conditions under which individuals would take jobs - wages, hours and so on. But this has proved impractical to measure, since even the individuals cannot necessarily provide the answers themselves.

The unemployment measure evolved in 1940 was not ideal as an economic datum, but neither was it useless as such. It measured unemployment at a specific point in time, rather than, as early censuses had done, tried to measure the total amount of unemployment over a long period. Economists want to know what is the relation of the supply and demand of labor at any giventime and could not find total duration of unemployment very useful in explaining the behavior of the economy. In other respects, too, the unemployment indicator did not seem to be so far from the economists' need for a measure of unused, available labor supply. In later years, it was to be an important, even if imperfect, variable in economic models.

Definition of Concepts due to Measurement Procedures. The most important influence of the measurement technique on the concept showed up in the use of activity as the principal defining criterion for classifying individuals. That is, a person engaged in work is called employed, one looking for work is unemployed, and anyone doing one or the other is in the labor force. There are some carefully spelled out exceptions,

but the basic activity principle governs most classifications. Other principles are conceivable, particularly in the unemployed classification, such as the desire to work. The economist might want the number willing to work at some going wage. Many unemployed by the activity criterion might not accept employment at any available wage.

The choice of the activity criterion was dictated by the need for an objectively measurable standard. The method of collecting information was interviews, and a great deal depended on the understanding of interviewers and respondents. Any area open to individual judgment would decrease the data's reliability seriously. The activity criterion is relatively unambiguous. Most people when they ask or are asked whether someone looked for work would understand the question in approximately the same way and respond predictably.

Other aspects of the concepts were decided at least partly on the basis of objectivity of measurement. Many questions were designed, expressly so they could be answered yes or no. The decision not to count the number of hours work that were wanted, that is the amount of unemployment in terms, not just of people, but of time, was based on the need for objectivity. The decision to ask, not whether people wanted work, but whether they were looking for it, was in part based on the difficulty of evaluating desire for work. Two different people's desires could be much less easily translated into comparable terms than the simple fact of looking for work. Some of the changes in concept since 1940 resulted from the finding that the original

concept was not possible to measure objectively.

Not only were the concepts defined deliberately, in some ways dictated, by the requirements of measurement, but also many fuzzy areas of the concepts were de facto defined in the instructions to enumerators. For example, the question may be "did you look for work this week?" The answer may be that the person read the want ads. The interviewer will have to consult the instruction book to see if that counts as looking for work. The effect of instructions can have both obvious and subtle ways of delineating what is to be measured. The censuses of 1910 and 1920 provide an example of how instructions to enumerators can, in effect, change concepts though no explicit definitional changes are introduced. In 1910 special emphasis was made in the instructions to enumerators of the point that women and children might well have gainful occupations. As a result a larger percent than expected was returned as gainful workers, and the instruction was dropped for the 1920 census. The proportion was low again (44). Although this could be described as a problem of a poor measurement instrument, it is also a question that enumerators in the two censuses perceived that they were measuring somewhat different concepts because of the instructions. Without the instructions, they were far more likely to consider that a housewife or child had some other activity besides gainful work, which should provide the criterion for their classification.

The number of these instructions has been cut down in recent years as the principles of the concept have been more thought through. The instruction book for the 1930 census was very large, providing a guide to the coding of all sorts of answers which were not obvious. But if such elaborate instructions are given, it suggests that the principles of the concept are still fuzzy. The implications of a clear and consistent concept will be more obvious and require less spelling out. The amorphous areas requiring much instruction have presented a source of unreliability and misunderstanding of the data, and there has been considerable effort to remove them. One of the most recent changes in the indicator, for example, has been to spell out the possible types of activities that could count as looking for a job on the schedule itself.

"Sorter" concepts used in the various surveys (45) around the country to separate out groups for further questioning are also part of the concept definition. This ordering of questions and implicit selection process was a de facto way of defining the concepts. For example, if a person was a gainful worker and over a certain age, he might also be asked if he was working. If not, then (and only then) he would be asked if he wanted work, and then if he was able to work. This procedure limited the information and the way it might be grouped since a certain data was only obtained if people answered an earlier series of questions a certain way. The order and choice of the questions is part of the concept and may or may not have been deliberately

designed in relation to some prior plan.

The Role of Contemporary Problems, Perceptions and Priorities. Some of the decisions about the concepts were grounded in values and perceptions of current problems. Sometimes the decisions seem to be quite simply fortuitous. One very basic decision that had to be made was whether the fact of employment would have priority over the fact of looking for a job. It was decided that if one had any work at all, it would classify one as employed even if looking for more work. It seems very likely that this priority was established because in the Depression, anyone with any sort of job was luckier than many. It was the totally unemployed that one wanted to find out about particularly. Also for comparability with employment data from establishments it was necessary to classify all those with any amount of work as employed because they would show up on employment rolls. The value judgment essentially was that it was more important to know the total number employed than unemployed. If there had been a plan to deal with all who needed more work, it seems likely that the total number fully or partly unemployed would have taken precedence.

The WPA, in deciding on the final format of the questions for its survey of unemployment, used the results of the 1937 Enumerative Check Census to decide which questions could be omitted. (46) They concluded not much would be gained by asking both whether idle persons wanted work and whether they were actively seeking it since

TABLE 1

COMPARISON OF GAINFUL WORKER AND LABOR FORCE CONCEPTS

<u>Category</u>	<u>Gainful Worker</u>	<u>Labor Force</u>
Those with previous occupation.	Includes all, even the retired or permanently disabled.	Includes only those at work or looking for work.
Those without previous occupation.	Excludes all.	Includes any who are looking for work.
Lower age limit.	10 years.	14 years.
Upper age limit.	None.	None.
Institutionalized persons.	Includes those with work or previous occupation.	Excludes all.

See Table 2 p. 124 for more detail on Labor Force concepts as they emerged in 1940.

the percentage who wanted work but were not seeking it was only 1.4. Although some of these might have been genuinely unemployed "stranded" workers, many, they concluded, were probably not available for work. Work seeking was chosen as the more significant and objective of the two criteria. They also used the check census tabulations to conclude that a question on ability to work was unnecessary. Only 2% of the population was enumerated as wanting to work but unable to. It is not inconceivable that in other years these percentages might be quite different. For example, recent feeling has been strong that the number who are too discouraged to seek work is substantial. It is possible, too, that if everyone were well insured for medical care and loss of pay, a good many more would report themselves as unable to work.

The set of concepts of employment, unemployment and labor force chosen by the WPA were the product of the time and place and the exigencies of the methods. They were the result of many decisions, large and small, and represented a kind of compromise of conflicting forces, goals, uses, and perceptions. Because the survey technique was finally operational, and because the WPA had funds to set up the survey in late 1939, the ideas and methods current at that moment were crystallized into a measurement process of unemployment. It was not always to be ideally appropriate in later times and places, but became institutionalized and persisted nonetheless. It seems quite likely that its success was strongly influenced by the pragmatic way the concept was developed. It grew very much out of the realities and constraints of a situation, and these roots seemingly gave it strength.

The War Years: Refining the Instrument

The advent of war brought changes which were to affect the course of development of the indicator. The WPA survey was continued in its same form under the Census Bureau throughout the war. Indeed the survey we have today, the Current Population Survey, is part of an unbroken monthly series which started with the 1939 WPA Monthly Report on the Labor Force. There have been changes, but on the whole the survey methods, questions and concepts are fundamentally the same ones today as in 1939. At first glance it may be surprising that the survey was continued through the war. It is true that it had been instituted to deal with the single most visible and emotionally charged issue of the Depression, unemployment, and by the time the survey had been going only a few months, unemployment was well on the way to very low levels. It might have been discontinued except that the wartime production and planning agencies needed information on the labor force.

Two circumstances changed basically between the Depression and the war period. The first was that public scrutiny was off the indicator since unemployment was no longer a major problem. This fact quite plausibly made it possible for the statisticians to work out methodological issues without the spotlight that might have made the revelation of flaws in the methods embarrassing - that might even have prevented their revelation or adjustment and certainly would have diminished public confidence in the results. The second change that

affected the indicator was that wartime labor problems were very different from Depression ones. Pressure existed to get different kinds of information from the survey and the problems were of a different sort. The interest was mostly in identifying potentially usable manpower. Helping the unemployed was no longer the problem, and there was considerably more acceptance of the idea of several breadwinners in a family.

When the Census Bureau took over the labor force survey from the WPA, they immediately began to apply their experience to making improvements in both sample and questionnaire design (47).

The period was one of considerable thoughtful work and the changes introduced had greater effects on the results than any later methodological developments. The accuracy became relatively high, and it appears that many of the major methodological problems were dealt with fairly well, though changes to increase accuracy and reliability are still being made. The first change introduced by the Census was to reselect the sample using more detailed stratification criteria and choosing from more widely dispersed units than previous sampling strategy (48). The WPA sample had grown rapidly unrepresentative with wartime population shifts in and out of the sample areas. The new sampling strategy was designed to minimize the problem.

Census researchers worked on tricky measurement problems and ways of designing questions to get the most reliable replies. (49) In the process concepts too were changed. (See Table 2 on the original definitions). For example investigation showed that respondents and enumerators understood a great variety of different things by the question on incidental family chores. Accordingly, many people working practically full time for their families were listed as not in the labor force and others working much less may have been listed as employed (50). The researchers concluded that it would be more reliable to distinguish economically meaningful work by the number of hours worked, so anyone with more than 15 hours a week of unpaid family work would be counted as employed. Investigators also discovered some of the ways that enumerator and respondent attitudes were adversely affecting the results. When respondents said they had no job and were not looking, enumerators were supposed to ask why not. But since the same families were interviewed by the enumerators in six consecutive months, and since the question was a rather delicate one, enumerators tended not to ask the question at all. They often supplied their own answers. After some experimentation the Bureau discontinued this question and left it up to the respondent to volunteer any reasons. Since, among those not looking for work, only a good reason would permit classification as unemployed, not asking for the reason cut down on the unemployed. The decision was to have repercussions much later when the reasons for it were long

TABLE 2
DEFINITIONS OF BASIC CONCEPTS
ORIGINAL LABOR FORCE SURVEY

The Employed Population

The non-military, non-institutionalized population over 14 years of age in one of the following situations:

- (1) At work for pay or profit at least 1 hour in the week preceding the survey.
- (2) Doing unpaid family work other than incidental chores.
- (3) Waiting to start a new job within 30 days.
- (4) On layoff with definite instructions to return in 30 days.

The Unemployed Population

The non-military, non-institutionalized population over 14, not employed (as defined above) in the week preceding the survey and either:

- (1) Active: took steps to find work within preceding week of waiting to hear from efforts in last 60 days.
- (2) Inactive: did not take steps to look for work because:
 - (a) Too ill to do so.
 - (b) Believed no work was available.
 - (c) On layoff either indefinitely or for over 30 days.

The Labor Force

All Employed or Unemployed.

forgotten. The concept and measurement method were just not dependable enough. (51)

The attempt to make statistics serve the war effort led to the discovery of a serious methodological problem, which meant that the survey results were seriously unreliable. To identify possible sources of labor that might be enlisted in war production efforts a question was added in March 1942 to the survey asking all those not in the labor force whether they would take a job if one were available. The startling result was that many replied they already had jobs.

Further study revealed that the question incurred a problem of underenumeration of the employed due principally to respondent's misunderstanding of the intent of the questions. Many, when asked if they worked in the previous week, said no if they also happened to be students or housewives, thinking the questioner wanted to know their principal activity. The question was clearly producing unreliable results, since those questioned clearly understood different things by it. The Bureau added a question to the regular schedule therefore, in 1945 asking what was the respondent's major activity and followed this by asking those who did not say work whether they also did any work. The effect of this was to increase the count of employment by 2,500,000, of whom 1/2 worked at least 35 hours a week. It also changed the composition of the group with relatively more women, more young people, and more trade and service workers (52).

These changes introduced considerable discontinuity into the series because the effect was fairly large. However, with these changes, it seems that the data reached a level of validity and accuracy that was to be relatively satisfactory for some time. Experiments and tests on the data continued and changes were to be made in methods and concepts but none with so large an impact.

TABLE 3

LABOR FORCE SURVEY: MAJOR CHANGES IN CONCEPTS, METHODS
AND PRESENTATION 1940-1971

- 1939 December. The WPA institutes the monthly survey.
- 1942 The Census Bureau takes over the survey.
- 1943 Change in the method of drawing the sample, to make it more representative in the long-run and adjust for recent population changes.
- 1945 New interview schedule introduced. Question added about usual occupation. Question deleted about why respondent not looking for work. Replaced by volunteered information. Inactive category merged with active unemployed. Result: a major discontinuity in the series. Employment estimates increased by 2,500,000, almost entirely women and those under 20. Unemployment levels remained steady but composition changed. More specific questions about unpaid family work, changing definition from incidental chores to 15 hours or more.
- 1954 Change from 68-area sample to 230-area sample based on the 1950 census results. No increase in funds. Sample size kept to 25,000 households. Reliability increased as if sample had been doubled. Discrepancy between results of old and new sample. Unemployment estimates in the latter were higher by 700,000.
- 1955 Introduction of seasonally adjusted data. Addition of monthly questions on reasons for part-time work (previously were done quarterly).
- 1956 Expansion to 330-area sample and 35,000 households. Increased reliability of major statistics by 20% and made possible publication of greater detail.

Table 3 (Continued)

- 1957 Concept changes:
- a) Those on 30-day layoff and b) waiting for a job within 30 days are now considered unemployed instead of employed, except c) those in school are now transferred to the "not in the labor force" category. The effect was to increase unemployment.
- 1959 Responsibility for analysis and publication of Current Population Survey data transferred to BLS, which gave regular technical press conferences. The Census Bureau continued to collect and tabulate the data.
- 1961- Gradual updating of sample and ratio estimates on the basis
1963 of 1960 census returns. Increase to 357 areas. No increase in sample size.
- 1963 Addition of two questions to monthly survey, one on whether the unemployed are seeking full or part-time work, and one on the family responsibility of the unemployed.
- 1967 Expansion to 449-area sample. Size increased to 52,500 households, for increase in reliability and detail.
- Concept changes:
- a) A specific job-seeking activity within last 4 weeks must be reported for a person to be counted as unemployed. This reduces ambiguity of time period and definition of job-seeking.
- b) Person must be currently available for work to be counted as unemployed (eliminating students, among others).
- c) Person with a job, but absent from it and looking for work in survey week were now considered employed instead of unemployed.
- d) Unemployment no longer includes those who would have been looking for work except for the belief none was available.
- e) Lower age limit for labor force raised from 14 to 16.
- Net effect was small, principally decreasing unemployment estimates.

Table 3 (Continued)

- 1967 Addition of probing questions on hours of work, duration of unemployment, the self-employed and availability of persons for work. Purpose was to get better reporting and more information.
- 1971 April. Elimination of technicians' press conference on monthly release of the figures. Beginning of monthly Joint Economic Committee hearings to replace it.

CHAPTER III

INSTITUTIONALIZATION OF THE INDICATOR

The Employment Act of 1946

As the war drew to a close, and soldiers returned home, fears began to mount that unemployment would climb back to prewar levels. The concern led Congress to pass legislation which was to make unemployment data a critical part of national level decision-making, and in so doing to ensure that the labor force data series would become a permanent fixture, highly visible and widely used. The legislation had nothing directly to do with statistics, however. In fact, Congress was apparently fed up with wartime controls and arguments over statistics, as the House Appropriations Committee rejected in 1944 and 1945 Presidential requests for statistical programs to aid in planning conversion to peacetime economy.

Unemployment, however, was a very real fear, enough to bring together conservatives and liberals to pass legislation to prevent a recurrence of the problems of the Depression. (53)

The act is known as the Employment Act of 1946 and states a national policy of the Federal government to "use all practical means.... to

foster and promote free competitive enterprise and the general welfare, conditions under which there will be afforded useful employment opportunities, including self employment for those able, willing and seeking to work and to promote maximum employment, production and purchasing power" (54).

This was a landmark declaration since it was the first time Congress had ever accepted a permanent federal responsibility for maintaining employment levels. Even in the Depression with all its work relief programs, Congress made no declaration of a continuing commitment. The programs were planned to be temporary and no major, long-term measures to deal with the economy were visualized.

After the war, however, things had changed. Most importantly, Keynesian economic theory was beginning to permeate government circles. Keynes provided an explanation of how it was possible for the economy to remain at a low equilibrium level with high unemployment and low consumption. Prior theory had assumed that high unemployment could not persist; wages would go down and the economy would readjust. One implication of Keynes' theory was that central government could and might even have to take action if the unemployment problem was ever to be solved. The government could use fiscal policy to increase demand for goods, increasing government spending or decreasing taxes, or monetary policy influencing the quantity of money or decreasing interest rates. The full range of possibilities and effects of the various

measures were not to be explored nor widely understood until considerably later. One thing was clear - that it was possible for the government to do something about unemployment.

In 1944 the British government issued a White Paper on Employment policy (55) and William Beveridge published his influential book on full employment (56). An important idea emerging in these documents was not only that government could affect unemployment but that it should have a target of full employment. This did not mean no unemployment since it was agreed that some frictional amount would have to exist if people were ever to change jobs. The problem was to decide what this level was and arguments over it would consume considerable attention in later years. A major contention was that full employment was reached when the number of open jobs in the economy equalled the number of job seekers. We have mentioned earlier one economist's definition (p. 112). Others were to define it empirically on the basis of unemployment in some good year. The important point to be made here is that the whole idea of having an employment policy involved a target level of unemployment. Measurement was clearly essential to carrying it out.

The Employment Act required that the President submit an annual economic report, including, among other things, a report on levels of unemployment, an estimate of future trends in employment and a program to deal with any problems. Since the act had clearly defined unemployment on the same principle as the indicator of the Census Bureau, there

was little doubt that it would be used in the analyses (57). It does seem unlikely that the Congress would have required, at this early stage of large-scale statistical programs, that an important national policy be predicated on an entirely new set of data.

The Act established, to aid the President, a Council of Economic Advisors and also set up in the Congress a special Joint Committee on The Economic Report. The Council was to be made up of persons whose "training, experience and attainments" give them exceptional qualifications to "analyze and interpret economic developments, to appraise programs and activities of the Government and to formulate and recommend national economic policy to promote employment, production and purchasing power under free competitive enterprise." Clearly such a mandate would produce council members who would demand and use the data. The Joint Committee, whose sole task at first was to evaluate the economic report for the Congress, was to become another source of expertise on unemployment and the data.

Although no new powers were established in the act, and no sharply defined goals incorporated into it, it was to have far reaching effects. Many Democrats had argued in Congress, as did the original proponents of the bill, that a target of "full employment" perhaps defined at some percentage level, should be part of the bill. They also spoke for various new powers and tools to carry out the purposes of the legislation. Although the bill's backers thought the legislation much

weakened in its final form, without policy tools or targets, it nonetheless proved to be very potent. The fact of declaring a national policy and setting up the institutions charged with carrying it out at critical points in the power and decision-making structure was a significant step.

The requirement to publish data on employment and to project future possibilities was probably one of the major incentives to later developments and policy changes. It was to turn the spotlight on the data both for the Congress and, eventually, for the public. More specifically, it was to focus attention on ways of lowering the rate shown by the indicator rather than simply on a vaguely defined problem. In other words, it gave the statistics a very direct role in policy design. The measure - or at least one measure of good policies - was going to be the level of a particular statistic. Suddenly the statistics would not only be powerful, but also any way in which they were inaccurate or failed to fully represent the group they were intended or thought to represent would have many repercussions. Moreover, anything they did not measure (for example, part-time unemployment) would stand a relatively smaller chance of being considered in policy discussions.

The legislation after all, did provide a tool for policy-makers - statistics. This may have been the most effective tool that could have been provided at that time. Many of the other tools that were suggested would very likely have been unsuccessful since the concepts were relatively new, and we were still without much experience in regulating the economy.

The statistics, however, were to help keep unemployment very much in the forefront of public discussion even when it might not have been otherwise obvious that there was much unemployment.

Thus the Employment Act of 1946 did three critical things for the future of the unemployment indicator. It for the first time established as a national policy a permanent Federal responsibility for the state of employment. Secondly, it established institutions in potentially powerful positions with the responsibility to carry out the policy. Thirdly, it required that these groups use the indicator in their analyses and virtually guaranteed that the statistics would gain public attention through such forums as Presidential Reports and Congressional hearings. It gave them visibility, a specific role in the policy-making process, and ultimately, through the public's awakened interest, an independent existence that would assure their continuance.

This particular set of institutional arrangements has attained much power and visibility though many Presidential Advisory Councils and Congressional Committees have quickly faded into obscurity. The reasons for the success of this set of arrangements are very interesting and have been the subject of a number of studies (58). It is not germane to go into this matter here, but it should suffice to say that the Council of Economic Advisors (CEA) and Joint Economic Committee (JEC) have steadily become more potent and prestigious actors in the making of national policy. What they say is seldom ignored. There are

organizational and political reasons that they have become important, but surely one significant reason was the availability of economic theory on which to base recommendations and dependable data to relate to it and support their contentions.

Building a Base of Support

The years following the passage of the Employment Act were marked by a notable increase in the number of interested and informed supporters of the labor force data system. Suddenly, potential users found it worthwhile to understand the data. It was also worthwhile for the statistics producers to build a strong base of support for their data collection efforts. Now that so much could ride on the indicator, the design and data collection methods would themselves become part of the political process. Attacking the indicator could well be the most effective attack on unwanted policies.

Public Image of the Statistical Agencies. The agencies involved directly were the Census Bureau, which conducted the sample survey, the Bureau of Labor Statistics, which would eventually take over the analysis and public presentation of the survey results, and the Budget Bureau's Division of Statistical Standards, which had the responsibility of coordinating government statistical activities. All three were without operational responsibility except for the gathering and interpretation of statistics, or the evaluation of statistical programs. An agency, like the Social Security Administration, that produced

statistics only as a byproduct of other activities, could be suspected of having a bias toward data which would tend to prolong their own lives. Because the work, particularly on the development of the labor force survey, was at the forefront of its field, the statistical agencies were able to attract highly qualified personnel. The agencies also had a positive policy of encouraging participation in professional meetings, and many papers by staff appeared in the most respected economics and statistical journals. Agency personnel regarded statisticians and economists as their peer group, and it was this group that they tried to please as much as they did the politicians who were their bosses. This type of institution and personnel give a solid basis for public confidence in the statistics.

But the agencies went further to strengthen their public image. Whether or not they planned a deliberate strategy for this purpose, the effect was to make the data far less vulnerable to the attack. All three groups called in outside experts for assistance and advice at critical points in the development of the data. The Census Bureau did so back in 1930 to plan unemployment questions. The Bureau of Labor Statistics did so in relation to its standard budgets, and The Office of Statistical Standards in the Budget Bureau set up an interagency committee in 1942 to coordinate and evaluate the labor force statistics in the various agencies.

The Use of Expert Committees. After 1946 the agencies stepped up their efforts to reach out whenever a problem arose and sometimes just on general principle. The Office of Statistical Standards appointed a special subcommittee of the existing interagency group to review concepts of labor force data in 1948 and again in 1954. They also instituted the Federal Statistics Users Conference, a group of state and local, public and private users of government data. Their stated purpose was to learn about the statistics and contribute their own ideas. Each year they made reports and recommendations and worked informally with the agencies. Eventually the membership was to become an important lobbying group for the indicator.

The most prominent use of a committee was in connection with the redesign of the sampling process and institution of a completely new sample in 1953 and 1954. (59) The results called the whole sampling and interviewing methodology into question. The use of outside experts turned out to be, not only a way of finding the causes of the problem, but also an excellent form of insurance against later criticism. In 1953 Congress had still not complied with requests for funds to expand the sample for the survey, but it was clear when the results of the 1950 census came in that the old sample was obsolete due to shifts from farm to city and city to suburbs and would no longer produce accurate estimates. Therefore the Census Bureau decided to redesign the sample, without the additional funds, choosing different sampling areas and expanding the number from 68 to 230 to decrease the future rate of obsolescence.

Enumerators interviewed old and new samples simultaneously in January 1954, with the same schedules. As most of the areas in the new sample were different from the old ones and enumerators are normally local residents, the two sets of enumerators were mostly different individuals. The result was an astonishing discrepancy. The new sample produced an estimate of unemployment about 25% higher than the old sample. The basic credibility of the data and the whole methodology of sampling was suddenly threatened, particularly as a similar discrepancy had been observed between survey results and both 1940 and 1950 censuses. Faith in the procedure of sampling was not widespread enough at that time for people to assume the problem was purely technical and soluble.

The Commerce Department called in an investigatory committee to determine what had happened and what to do. The committee was headed by Frederick Stephan, a statistics professor from Princeton who had worked with governmental statistical agencies before, and included two professional researchers, one representing labor and another business. The three experts agreed on a 34-page report (60) which said, much to the surprise of observers, that the new sample was more correct than the old one and blamed the discrepancy almost entirely on operating and administrative difficulties rather than any basic methodological issue.

To save funds for training new enumerators, the Bureau instructed and supervised the old group almost entirely by mail for the previous six

months, while the new enumerators had been receiving intensive personal training. Since to classify someone as unemployed requires more care than to classify him as employed, the old enumerators, careless as their employment drew to an end, classified many unemployed as not in the labor force. The truth of this became obvious when the results for the old sample for February and March came in. The discrepancy began to diminish as the enumerators realized they were under scrutiny - unemployment went up in the old sample relative to the new. The committee also recognized that the new sample was more sensitive to changes in the population than the old one. They did not feel that the differences in the drawing of the sample could account for the discrepancy, which occurred only, to any serious degree, in the unemployment figures. They concluded that the problem with the enumerators' sloppiness was in part due to inherent vagueness of some of the concepts-in particular, the fuzzy area where employment and unemployment overlapped. They recommended a thorough overhaul of the concepts.

Congress Informs Itself. Meanwhile, the Congress, in particular the Joint Economic Committee (JEC) was gradually informing itself about the data and becoming a highly supportive group. In the process they provided some criticism and directed agency attention to certain types of problems. Congress formed special committees in the fifties to study unemployment and often got into the subject of measurement. In 1950 the JEC sent questionnaires to major data users and producers

to get their opinions. (61) In 1954 the JEC formed a new subcommittee to oversee economic statistics. Its Chairman, Congressman Talle, said that the statistics were important to the stability and growth of the economy. He visualized them as an aid to taking corrective measures before problems become terribly obvious. This recognition on the part of a Congressman was unusual, especially at that time. It may not be a coincidence that Congressman Talle was a professor before he was in Congress - another kind of politician would have been less likely to perceive the potential of statistics in the making of policy.

In any case, the subcommittee began by holding hearings in 1954 that were largely exploratory. (62) They invited bureau heads, asking for opinions on the concept of a system of statistics, on weaknesses and gaps in the existing statistics and on what information was needed. The discussion roamed widely over these vague topics, with the bureaucrats leading it, in general. Although the hearings were held shortly after the big sampling discrepancy, there was little discussion of that. The Congressmen still had much to learn, and their questions were not very pointed. By the 1955 hearings, however, they seemed to be more incisive. (63) It was then that the Appropriations Committee was finally persuaded to appropriate funds for the expansion of the sample now that there were more articulate spokesmen. At this time, the JEC as a whole even held hearings on economic statistics as part of their work on the President's Economic

report. (64) The subcommittee was to develop its own expert staff and work with the agency statisticians, eventually commissioning a thoughtful volume of papers on important measurement issues (65).

Improving Public Relations. During the 15 years after the Employment Act of 1946, the agencies made a number of moves to improve usage and understanding of the data. These included changing the date of the survey to correspond to the data of the Bureau of Labor Statistics (BLS) establishment reports on employment, publication of a monthly joint release on labor force data by the agencies collecting data and finally the BLS was assigned the job of analyzing the Census data. The Joint Economic Committee began to publish an annual Descriptive and Historical Supplement to the monthly publication on Economic Indicators which had existed since the late 40's. This was an interesting idea - that something should be provided for the layman to read not only explaining the concepts and methodology behind such indicators as unemployment, and price indexes and GNP, but also giving a historical account. It was a recognition that indicators are products of their time and history. There were changes in press releases to speed them up, to give more complete information, explain trends, and methods.

Internal studies of methodology and checks for errors in the survey began to be increasingly published though even in 1950 officials were reluctant to discuss the difference between the census and the survey results. This new openness of discussion was a sign of

increasing confidence on the part of the statisticians as they came to recognize by comparing it with employment and unemployment data from other sources, that the survey was actually more accurate than the census. Even a few laymen began to recognize this.

Between 1946 and 1960 unemployment evolved as a more widely understood and accepted statistic. This expansion of the understanding of the statistic's implications was a critical element in the future of the indicator. It is not clear whether the agencies responsible realized how important this would be in later years; however, it is clear that the opening up of discussion of indicator design and methods and informing of the public was a deliberate process.

Defining Full Employment: Models and Targets

Although the Employment Act avoided mention of full employment, it was probably inevitable that its mandate to maximize employment would lead those in and out of power to try to define unemployment targets to measure failure or success. Indeed decision-makers and the public used unemployment data in the 10 or 15-year period after passage of the Act primarily to define a national unemployment goal and assess our position with respect to it. Economists and analysts also looked at such data as unemployment composition and employment trends, but public discussion seemed to constantly return to the single statistic, the national unemployment rate as a summary of the problems. This statistic did not turn out to be useful for understanding the nature of the problem or cause, but was principally a broad indicator of economic conditions and the extent of unemployment.

The choice of a full employment level of unemployment depended on one's model relating unemployment to other variables and interpreting past events. I use the term "model" here in its broadest sense - any abstracted description of how things work is a model. This usage should not be confused with the specialized one denoting econometric

or mathematical models with many equations spelling out all relationships in detail. Even those who do not understand such models operate by some kind of model, even if it says no more than that the future will be like the past. The varying definitions of full employment grew out of various models, differing in degree of sophistication. Over time the models, originally used to pick out a single target figure, came to raise increasing numbers of questions which led to public examination of more detail in the data. But in this early period of the late forties and fifties the unemployment indicator was still very much a single variable, and discussion focussed on the appropriate level for that variable.

The policy tools to deal with unemployment were relatively undeveloped in this period and certainly not closely connected to the data. The Act itself was vague on how the data would be used. It directed the Council of Economic Advisors "to gather timely and authoritative information concerning economic developments and economic trends, both current and prospective, to analyze and interpret such information in the light of the policy declared in Section 2 (to promote maximum employment, production and purchasing power) for the purpose of determining whether such developments and trends are interfering or are likely to interfere with the achievement of such policy..." (Employment Act of 1946, Section 4(c)). The data would be used to describe the situation and make projections. There is no reference to

analysis of causes or planning of solutions.

The idea of the Act was that the President would submit a budget each year which would incorporate projections of GNP and expected unemployment. It involved a model (unspecified) wherein government spending, GNP and unemployment could be related and it required the President to recognize explicitly any increasing trend in unemployment. The Act implicitly required the development of a target unemployment rate. Although conservatives had prevented the incorporation of an explicit "full employment" goal in the act, it was implicit.

High employment has been an accepted national goal since 1946 and reaffirmed frequently since then. (66) The early Councils of Economic Advisors began by setting unemployment goals, usually about 3%. They soon stopped talking in terms of specific numbers, but they continued to speak of the principle. When unemployment rose in 1949 from below 4% after the War to 5.4%, the Joint Committee on the Economic Report, as it was then called for hearings on unemployment. They were to do so almost every time the rate rose to near 6%. The Committee's objective was to examine the problem of rising unemployment trends, but since the trend reversed abruptly with the onset of the Korean War in 1950 they cancelled the hearings, but published a report anyway (67)

The report was evidence not only of Congressional interest in unemployment data, but also of a desire to attach values to various

unemployment levels and set up norms which would evaluate unemployment. The report stressed the importance of statistics in implementing employment policy and talked principally of solutions involving the expansion of the economy or public works projects. The report included the results of a questionnaire the committee had sent out to business and labor leaders and government officials, which asked, among other things, what level of unemployment is "alarming," what level "serious" and what level "normal." They were trying to select unemployment norms through some kind of consensus. The Secretary of Commerce replied as one might expect a representative of business to, that the existing level of unemployment, 3,400,000 was "not abnormal." The Secretary of Labor took issue with the question, saying the level was not important, only its rising or falling tendency and pointed out that a simple level cannot indicate what ought to be done. In general, the group agreed that the statistics tended to conceal important facts about special unemployment problems in certain areas or among groups.

Nonetheless, the focus on the choice of a target level was to continue right up to 1972. Eisenhower's National Goals Commission accepted the goal of "full employment" (68). After a period of average unemployment well above 5% since 1950, President Kennedy's Council of Economic Advisors finally stated explicitly the "interim" goal of 4% unemployment (69), but they were still hoping to achieve

closer to 3%, eventually. In the midsixties, unemployment dropped back to a level between 3% and 4%, and the target became less of an issue. However, the problem has raised its head again recently with unemployment levels hovering near 6% for most of 1971 and 1972. The Republican Administration's response has been to attempt to defuse the issue by redefining the target rate, which has been traditionally no higher than 4%. Ezra Solomon of the Council of Economic Advisors has suggested that 4.5% might be too optimistic. Ex-Secretary of the Treasury Connally has suggested that a new target level is necessary, and a number of articles have suggested that the "normal" rate of unemployment has shifted upward (70).

The discussion stems, not only from a desire to eliminate some discrepancy between the goal and the reality, but also from the models through which the target has been chosen. These models provide an example of the varied ways in which the statistic comes to defuse problems and is reminiscent of Pound's description of managerial problem finding (see p. 24). At first, in 1946, it was quite unclear what should be taken as the working definition of full employment and Senator Paul Douglas, at the time a labor economist and not yet a Senator, suggested 6%. After experience with the data, however, in non-war, non-Depression years it became possible to use an historical model. Three percent was the lowest level achieved after 1947 and that was during the Korean War. In comparatively good years it was usually

closer to 4%. The assumption that the present and future could and should be like the past led to a considerable degree of consensus on somewhere between 3% and 4% unemployment as the full employment level.

There were other efforts, however, to define full employment theoretically or, at least on the basis of a more explanatory model than the historical one. It was such a model that led to recent suggestions that there was reason to suppose "normal" unemployment should now be higher than it used to be. As far back as the twenties analysts tried to break down the components of unemployment according to cause. In the 40's and 50's thinking about unemployment focussed largely on such categories. By this model unemployment was the sum of frictional unemployment, due to changing technology and requirements for labor and cyclical or economic unemployment due to the basic health of the economy. The usual argument about target unemployment derived from this model has been that it should equal "frictional" unemployment or perhaps "normal" unemployment, which might include some structural elements.

Economists arguing for a higher expected level in 1972 say that the population and labor market have changed to create a larger structural component of unemployment than before. A higher degree of skill and education is required for a greater percentage of jobs, while the youth and minority or disadvantaged population is growing relative to other groups. Although close examination of unemployment data does give information about these groups, and deliberate efforts have been made

in recent years to expand such information, we cannot actually measure structural unemployment or any of the other components. It has never been possible to identify whether a particular individual is frictionally or structurally unemployed or unemployed for economic reasons. Questions about the reason for unemployment in the 1930 census represented a dismally unsuccessful attempt to get at these components. Efforts to measure duration of unemployment have been another imperfect attempt to get at the distinction between types of unemployment. Ultimately we have guessed at the size of these components historically by assuming at some point, in a good year, that all or most unemployment was due to non-economic reasons. This then we assume to be the frictional level, perhaps including some temporary problems of mismatches between people and jobs as well. From there it is a simple step to identifying such a level as the "normal" or target level.

The simple categorization became transformed into a discussion on the basis of Keynesian theory in 1958 and 1959 when unemployment was persisting at close to 6% though other economic indicators were comparatively better. Politicians finally listened to Keynesian economists for an explanation of how this was possible. John Maynard Keynes had formulated in the thirties a theory of the national economy which would, among other things, explain how it was possible for

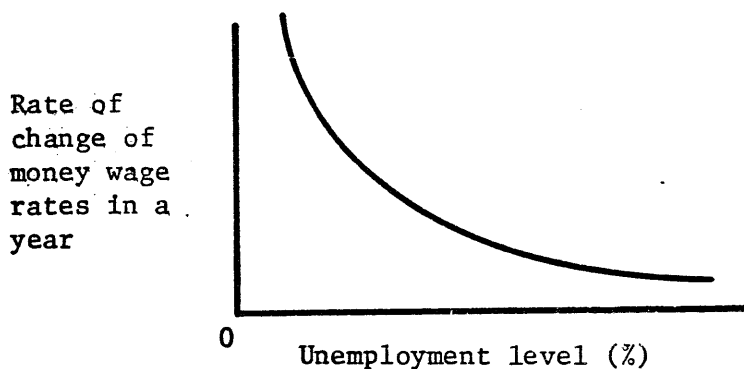
unemployment to remain high and consumption low. His ideas were to form the basis of the modern theory which has guided national economic policy in recent years. When unemployment remained high after the recession of 1957, the national search for causes boiled down to a discussion of whether the unemployment was due to the inadequacy of total demand for goods or to structural changes in the labor market (71) On the one hand, there might be plenty of jobs for all who wanted them, but the job hunters might not be qualified for the available jobs or, on the other hand, the economy might be balanced at a low consumption level so that it could not be expected to provide enough jobs in any case without some stimulus.

The policy implications of the two analyses were far reaching but vastly different. The fact accounts for the tremendous Congressional interest in the issue (72) and eventually widespread public interest (see p.174f). Acceptance of the structural notion implies that the emphasis in remedial efforts must be on job retraining and providing information to job hunters about jobs. The inadequate demand theory implies that fiscal measures should be taken to stimulate the economy. The former is far less expensive than the latter, and the latter implies the use of an unbalanced budget. Both facts made the structural argument far more attractive to Republicans than Democrats throughout the sixties (73). Major programs based on both types of theories were to be undertaken in that period (see p. 174 for more detail)

including the tax cut of 1964 and the Manpower Development and Training Act of 1962. Unfortunately, however, until much later, the unemployment data did not shed light on whether structural or demand issues were the primary ones. On the other hand, the debate provided considerable incentive to develop data on job vacancies and on the nature of unemployment rather than just the number of unemployed.

Of course, the data did provide some information on the characteristics of the unemployed - the age, sex and race of the unemployed for example. Statisticians and economists cited these figures often in Congressional hearings on policy analyses, but the intensive discussion and further development of such information was not to occur until the sixties.

The unemployment data also became a key element in another analytic approach. In 1957, A. W. Phillips published the results of an analysis of British wages, prices and unemployment for the previous fifty years and demonstrated an empirical relation between them. He plotted the relation of the change in wage rates to the unemployment level for each year, to get the well-known "Phillips curve." (74)



The curve provided another way of setting unemployment targets. We would choose unemployment goals at levels where inflation was acceptable. We would pick out the point on the curve where inflation was reasonable, say 2%, which would correspond to a particular unemployment level. The issue of how to make this kind of tradeoff had dominated the last 10 years of economic policy discussion relative to unemployment.

The trouble with this model for choosing the target was that it assumed that labor operated in a perfect market - that is, that information was perfect and all units of labor interchangeable. This essentially ignored the structural argument - it was certainly possible to do so using overall unemployment rates, which conceal questions of the characteristics of labor and jobs. The result is that in 1970 and 1971 it appeared that the curve had shifted up and the same inflation - unemployment tradeoff no longer was valid. That is, a particular inflation rate no longer matched the same unemployment rate (74). This fact has been explained as the result of a changing labor force, which increasingly includes more young people due to the "baby boom" of the forties and more disadvantaged groups. Whatever the reason, it is now clear that the "Phillips curve" was never an adequate explanatory model for the relation of unemployment and inflation, though policy-makers have accepted it for some time, as reports of the Council of Economic Advisors or Congressional Studies reveal.

All these ways of thinking about unemployment influenced and were influenced by the unemployment indicator, its characteristics, and behavior. The emphasis throughout the fifties and, even to a great degree in the sixties, was on an unemployment norm, a simple figure which would sum up the situation and provide an easily communicable criterion for judging how things were going. This effort to simplify the data is probably a very natural one when an indicator comes into a national arena, and many types of people with varying backgrounds must use it. Unfortunately, the models used to choose the targets were also highly simplified, and somewhat ad hoc rather than grounded in basic economic theory. Moreover, the target as an overall rate did not give much clue to needed methods of approaching it. The sixties would be marked by an increasing effort to design and use the data in ways more appropriate for analysis.

A Change in Definitions

Since the labor force survey began in 1940, the definitions of employment and unemployment have been changed twice, in 1957 and 1967. The changes were marginal and did not affect the basic principles of the definitions. In fact, many principally methodological changes had a greater effect on the results. However, it is worthwhile to recognize that changes in the concepts did occur. It was not considered necessary that they be fixed for all time.

When the changes did occur, they were not the result of direct partisan pressures, as journalists often charged in later years. On the contrary, on both occasions the definition changes resulted from the deliberations and recommendations of expert committees. The factors they took into consideration in making their recommendations included both prevailing views of what employment and unemployment should mean and the size and nature of the actual problems. There seems to have been virtual consensus on the changes recommended in 1957. The committee did not recommend other more controversial ones. In both cases the committees looked at the movements of the data on various groups of the population that were not obviously classifiable as employed, unemployed or not in the labor force to determine with which group their behavior would best place them. The effect of using the criteria of prevailing opinion and current behavior of the data for redefining concepts is of course to make it likely that the concept will require change as times and perceptions change. It means accepting the principle that the concepts are basically only valid for a time and place.

The 1957 changes in definition came as the immediate result of the investigations of an interagency committee appointed by the Bureau of the Budget specifically to review labor force concepts. (For a discussion of the origins of the 1967 changes see the next section, Emergence to Public View). The history is far longer than that,

however. The Bureau of the Budget, in its capacity as coordinator of statistical programs, was concerned with comparability and validity of definitions. It had appointed an interagency committee in 1942 (75), when the Census took over the labor force survey, with representatives from all agencies collecting labor force data to oversee and communicate on decisions about the various series. Then, in 1948 and again in 1954, the Bureau appointed a subcommittee of technicians to examine the concepts. This was one of a good many ways in which the opportunity was created to test the validity of the concept. The business and labor advisory groups to the Bureau of Labor Statistics and the Federal Statistics Users Conference also provided feedback on usefulness or appropriateness of the concepts, but their effect was principally later. The agencies were quite consciously concerned with testing the validity of the concepts. It is not a coincidence, however, that the subcommittee was asked to do its reviews in two recession years. When unemployment rose, the unemployment indicator became the subject of questions and criticisms. The subcommittee provided a way of disarming and responding to such attacks.

These committees viewed the concepts not only from the point of view of their own expertise, but also from the view of users whom they consulted extensively before making their reports. The 1948 committee recommended no changes, but the work of the 1954 group was followed in 1957 by the changes in definitions that they recommended.

The change shifted two groups from the employed to the unemployed category - those laid off for a definite period of thirty days, and those waiting to start a new job within thirty days. A small subset of these who were still students were categorized as not in the labor force. The reasoning behind the changes involved principally consistency of the definitions and common user perceptions or values about who ought to be considered unemployed. It appears by comparing the subcommittee report to testimony of many witnesses in the 1954 and 1955 Joint Economic Committee hearings (76) that the subcommittee's recommendations did represent an area where there was a definite consensus.

The subcommittee's original mission was to "make an extensive exploration and review of the concepts of the labor force, employment and unemployment used in population surveys, establishment reporting and administrative records.... The subcommittee's survey will be undertaken from the point of the appropriateness of the concepts for analysis of current economic developments, taking the account of technical limitations inherent in the sources of data. It will look toward obtaining consistency as well as maximum usefulness for economic and social analysis." (77)

The subcommittee sought a general concept of the labor force as a beginning for evaluating the definitions. It was not spelled out for them nor was it obvious. The report said "Those in the labor

force are thus distinguished from those outside the labor force by their current activity. Exceptions to this general criterion are made for special cases where current activity is an inadequate basis for reporting labor market attachments - ranging from cases of persons with a job and not at work to persons who would have been looking for work except temporarily ill in the survey week.

"The intent, however, is clear. It is to provide a measure of persons currently in the labor force and not the total number of persons in the potential labor supply." (78) (underlining mine)

The point was that they did not have a clear statement of the intent of the measurements to use, but rather they deduced it by observing the actual measures and then used the statement as part of a criterion for judging the measurement. The committee mentions that the main problem with the labor force concept is distinguishing between the unemployed and those not currently in the labor force. The report adds that "for many situations there are no inherently correct definitions and, given a set of definitions there may be differences of opinion in their application to specific cases." The report clearly acknowledges that concepts are not given truths, but rather ideas grounded in realities and adds that the "intent of measurement cannot be separate, for practical purposes from the questions of the success of measurement." (79) Thus the committee considered it important to deal not only with how to define appropriate concepts but also how the measurement procedures may affect them.

The committee rejected the idea proposed by many of measuring the potential labor supply (including those, say who would like jobs though they are not actually looking) instead of the actual labor supply on the ground that the latter was subject to rapid change while the former was not. Current measurement was intended to reflect current economic conditions principally, the report said. Interestingly enough, the model of the relationship of such variables as measured unemployment to economic conditions was to change so that in 1972, the view is beginning to prevail that the relationship of the current and potential labor supply does indeed reflect current economic conditions. The potential labor supply includes today an increasing number wanting jobs who have simply given up looking and others, such as women or students, who move in and out of the officially defined labor force often. Without information about such people, we are finding it very difficult to predict the amount of investment needed to bring official unemployment rates down to desired levels.

The 1957 changes in definition principally concerned the borderline area between employment and unemployment. The committee noted that there was continuing criticism of the inclusion in the employed category of those on short-term layoff and waiting to start new jobs. Labor leaders for example had commented on this in hearings. The criticism led the committee to conclude that excluding these two groups did "not conform to general public or economic conceptions of unemployment."

They checked this impression by looking at the data and found that the numbers on temporary layoff usually increased just before a period of rising unemployment. Apparently employers were using the layoff as a modified form of firing but workers tended not to look for new jobs because of a stronger sense of attachment to work than they once had due to union agreements. Thus changing social and realities along with public conceptions of the issues dictated the changes.

Meanwhile the committee rejected other proposals for concept changes - proposals that were to come up frequently throughout the years. They did not make a special category for the underemployed or partially employed, though in 1972 this notion is finally being experimented with. They decided, as mentioned above, not to count the potential labor supply, nor to limit the with-a-job-but-not-at-work category to those with pay, as labor unions wanted.

In any case, the subcommittee's recommendations were essentially accepted and implemented as they were published in the Joint Economic Committee hearings. (80) The changes in definition were very cautiously made with a great degree of consensus behind them. The subcommittee had considered the changes originally in 1948. They had then and in 1955 consulted a wide range of users. Their proposals for change met with no real opposition in the Congressional hearings where they were aired. The changes could have been introduced by administrative fiat instead of through a public discussion and a

committee of technicians. Nonetheless, the changes and motivations behind them would soon be subject to vicious attack. This cautious method of introducing changes through committees and consensus would provide an important defense at that stage.

Emergence to Public View: The Indicator Withstands a Challenge

In September 1961 an extraordinary series of events was set in motion. It began with an article in the Reader's Digest entitled "Let's Look at the 'alarming' Unemployment Figures", (81) which attacked the very foundation of the indicator. The article dealt with concepts, methods, and the integrity of the responsible agencies. This was not the first challenge to the indicator on such grounds. Academic discussions had considered these issues at length, but this was the first such commentary to appear in a mass magazine. It marked the emergence into general public view of, not just the indicator, but of the issues involved in its measurement. The repercussions of the criticisms were felt throughout the government, but the indicator weathered the storm well because of the way it had been developed and handled through the years and because of the informed interest groups, carefully nurtured during that time. The issues had all been considered before, in an open process, so the agencies had satisfactory answers ready and satisfied users to vouch for their integrity. Ironically, the net effect of the furor was to strengthen the indicator. It was now not just widely known, but widely known as a respected, non-political and

comparatively well understood data series. Moreover, the discussion occasioned by the controversy led to considerable additional investment and improvement in the methods and an increase in the information elicited by the survey.

Specifically, the article set in motion not only critical articles and editorials nationwide, but also an elaborate official evaluation of unemployment data, which entailed two sets of Congressional hearings, quantities of position papers, analytic pieces, speeches by agency personnel and extensive investigation by a specially appointed Presidential Committee. The Digest article was capable of catalyzing this chain of events for several reasons. First, James Daniel, the author, had armed himself with a good many facts, and his criticisms were sharply pointed. Secondly, the Reader's Digest has a vast readership as one of the most popular magazines in the U.S.

Most important was the combination of political and economic situations in 1961. Unemployment had been "stuck" at a level of over 5% since the 1958 recession, and national attention had been focussed on the causes for this unusually high rate for otherwise prosperous times. Meanwhile, President Eisenhower's benign regime had been replaced by the administration of the youthful and liberal John Kennedy. Conservatives were fearful that he would seriously try to implement the mandate of the Employment Act and institute spending programs to lower the unemployment rate. If anyone had any doubt about the connection between the official

figures and justifications for programs, then it was dispelled by Secretary of Labor Goldberg. By 1961 he had begun to hold press conferences personally on the release of the monthly statistic and to combine them with policy announcements. (82) This kind of politicizing of the statistic had proven dangerous to the statistics credibility as far back as the 1930 census, but politicians continue to take the chance even in 1972. (See p.61-64) It should not be surprising that the attack on the indicator came at all, that it came from a conservative publication like the Reader's Digest, nor that it struck a responsive cord in many readers. Daniel's article suggested quite bluntly that there was a conspiracy in Washington to inflate the unemployment figures and provide the excuse to set up more federal programs. To support his argument he cited such things as the comparison with European data, which showed lower rates, elimination of the inactive worker category in 1945, the vagueness of the questions identifying who is looking for work, the sampling fiasco in 1954 and the inclusion of some who are not actively seeking jobs among the unemployed. He spoke disparagingly of the sampling approach as a method of getting accurate information and concluded that, since the censuses of 1940 and 1950 showed less unemployment than the survey, the survey interviewers were deliberately inflating unemployment figures. European unemployment data provided him a kind of validity check on U.S. data. He saw no reason why our unemployment

should be higher than in Europe. He did not recognize the reasons for the lack of comparability (primarily that they usually represent the registered unemployed, a self-selected group), but simply concluded that, since ours were higher, they must be incorrect.

Although the account contained a number of inaccuracies or outright misrepresentations (Daniel claimed, for instance, that the enumerators asked respondents "How many people here want a job?" instead of the more specific questions they did ask about job seeking), Daniel had brushed against some fundamental issues. He did not know the exact questions that were asked, but he was correct that there was a vagueness in the concept of unemployment and in questions about who was unemployed. The elimination of the inactive unemployed category was not done deliberately to conceal the figures as he implied, since there were so few in 1945. However the move was a clumsy attempt to gloss over the technical problems of getting accurate information on the reasons for not working or not looking for work. Significantly too he attacked the whole definition of unemployment, raising issues that had long been troublesome about who "ought" to be included among the unemployed. First he sneered at the permissive attitude in the decision to include among the unemployed those who do not look for work because they think no work is available. Then he pointed out that many counted as unemployed did not deserve to be because they had quit their jobs to find better ones or needed only pin money and part-time work. He basically disagreed with the value judgment that ignored all

such considerations in favor of counting all who demonstrate that they want work whatever their circumstances.

The article was remarkable in that it appeared at all in a mass publication like the Reader's Digest - that the Digest considered its audience interested in such detail on the nature and quality of dry, government statistics. Their publication of the article was undoubtedly a reflection of increasing public awareness of the role of the statistics in government policies and increasing public sophistication about the issues. This last was due in great part to the stepped-up public information efforts of previous years as well as to the prospect of new federal programs. Daniel's criticisms in any case, began to reverberate throughout the system. Editorials in papers across the nation (83) echoed and reechoed the comments, and debates began on the floor of Congress. The Subcommittee on Economic Statistics of the Joint Economic Committee, which had been planning a thorough investigation of unemployment statistics at that point themselves, had commissioned a report on many of the issues.(84) The hearings they held in late 1961 however, concentrated on Daniel's comments. (85) Public confidence in the data had been undermined. The issue became so visible that Secretary Goldberg requested that President Kennedy step in. He appointed a committee to appraise the statistics (The Gordon Committee), and in their report a year later (86) they made it quite clear that the Digest article had prompted the study.

The most remarkable aspect of this chain of events was not that a Reader's Digest article was written, nor even that it caused the President to appoint a prestigious investigating committee and a major congressional committee to devote much of two major sets of hearings to issues raised in it. It was rather that when all was said and done, so little that was fundamental changed, and so few of the criticisms were found valid. The indicator actually stood on firmer ground afterward than before.

Of course all the furor did have some effect. The definitions of labor force concepts were sharpened and slightly altered, survey questions were changed to require less subjective responses, the sample size was enlarged, and the data presentation removed more clearly from the political arena. These were the most obvious, formal changes resulting from this controversy and none represented radical departures from past practices.

This extended discussion had other results more subtle than these formal changes, but equally, if not more, significant to the indicator, its content, and public perceptions of it. Many Congressmen and much of the public were awakened to the significance of so-called "technical" issues in the data that was used to build policies. The agencies, the BLS and Census Bureau, were forced to think out their positions and the rationale for them clearly in order to respond to criticisms. (87) In many informal ways the work of the Gordon Committee economists and the

congressional staff with the agency personnel produced changes in the way such things as press releases or data quality checks were done. Moreover, this calling of attention to statistical activities gave the proponents for the first time a national audience for their requests rather than just the Joint Economic Committee in Congress and some limited interest groups.

Such developments were distinctly marginal, however, to criticisms of the fundamental concepts, methods and integrity of the agencies. Daniel's specific criticisms were disposed of in short order. They did contain some false statements, and unjustified implications about the intent of certain decisions. However, these would not likely have been recognized so promptly and unanimously if it were not for the fact that the government had been doing its homework thoroughly. The agencies and congressional committee had brought many outsiders into the process of analysis and evaluation of the indicator, and their response in 1961 showed that they accepted, and even identified with, the indicator design process.

Representatives of the major unions, the Chamber of Commerce, the National Industrial Conference Board, the Chairman of the Federal Statistics Users Conference and academics rushed to defend the indicator and the statistical agencies. They wrote letters to newspapers and the Joint Economic Committee, and many testified at the hearings and conferred with the Gordon Committee personnel. Their faith in the

integrity and professionalism of the agencies was virtually unanimous. As proof they cited the openness of the process by which decisions are made and the qualifications of the staff. Although interest groups each desired changes in the indicator which they took the opportunity to describe, they supported the unemployment indicator in all its basic respects. That is, they accepted the fundamental ideas that a sample survey could be representative of the nation, that accurate information could be elicited by interview, that the questions were in general appropriate and certainly not deliberately misleading, and that unemployment was suitably defined by the activity of seeking work, with some minor exceptions for presumed hardship but not by need for work. Daniel had challenged directly or by implication most of these ideas, but he clearly could not convince these, by now, ardent fans of the indicator, who presented an almost impregnable front. Who would give credence to a journalist when so many distinguished individuals of differing political views contradicted him?

As for the Presidential committee, Kennedy had looked for its membership largely to the academic community in his customary fashion and had appointed six highly professional men. These included three professors of economics, Robert Gordon of Berkeley, Robert Dorfman of Harvard and Albert Rees of Chicago, and Frederick Stephan, a Princeton statistics professor who had headed the 1954 investigation of the

sampling discrepancy. Along with these he appointed research directors of the AFL-CIO and National Industrial Conference Board, both of which had for many years had their own data series on unemployment. Such a committee's recommendations were bound to have the respect of Congress and the public and to be considered objectively arrived at and carefully thought through. They were also quite likely to produce a fairly sympathetic report. As professionals rather than politicians, their standards were similar to those of the Bureau of Labor Statistics. Moreover, at least three committee members had worked with the data for some time and could well be said to be part of the process they were called on to investigate.

The Committee concluded "unanimously" and "categorically" that "doubt concerning the scientific objectivity of the agencies responsible for collecting, processing and publishing these data is unwarranted." They examined the issues of definition, of survey methodology, comparability of related data, questionnaire design, international comparisons and seasonal adjustment methodology. They did a thorough investigation of the basic questions from a technical point of view. Their report is a thoughtful one which gives much useful analysis for any student of labor force statistics, but it is not a strongly political document, nor does it take a strongly critical position.

The Committee's findings gave much support to the status quo. They endorsed the basic definitions of unemployment, in particular the activity criterion. They said the sampling method was good but could be better - provide more reliable and detailed estimates - if the sample were larger. They encouraged greater use of a recently introduced technique which altered the data presented to the public, the seasonal adjustment. They recognized some of the dubious assumptions involved in this procedure for smoothing out the seasonal irregularities in unemployment, but suggested further research and use. Most importantly, the Gordon Committee endorsed the integrity and objectivity of the data collecting and analyzing agencies.

The Committee did, of course, make criticisms as well and the BLS acted upon many of these. (88) In particular, they recommended sharpening the definition of unemployment through more detailed questioning and specification of activity which constitutes seeking work and a period in which work must have been sought. They had questioned the reliability of an interview which depended only on volunteered information about job-seeking. One result of this that the Committee recognized as a necessary byproduct of an effort to get consistency, was the exclusion from unemployment totals of the discouraged workers not looking because they believe nothing is available. The change was made, but the latter exclusion was to

receive criticism later as a deliberate attempt to conceal unemployment. (89) This is ironic in view of the fact that the 1957 definition changes, also recommended by expert committee, were criticized as a deliberate attempt to find extra unemployment.

The Committee made a number of other suggestions and comments which were followed up. They urged the expansion of information on persons not in the labor force reflecting their doubts on how well the concept defined the appropriate individuals. They pointed out that "policy determinations in the 1930's required a count of unemployment - particularly a measure that would suggest the minimum number of jobs necessary to take care of the jobless. Very little effort seems to have been devoted to establishing an independent concept of the labor force or to indicate its relation to labor supply. It was apparent then there was more than sufficient labor supply to meet all needs." (90) The Committee recognized how the need for particular concepts may arise from particular circumstances. They also rejected the exclusion of those with less than five hours of work a week from the employed. The principle the committee wanted to follow was one of "job attachment" alone and not degree of job attachment. They also said "the need to present the data in a nonpolitical context cannot be overemphasized." (91) They commended the Department of Labor for inaugurating after the Daniel article the practice of announcing well in advance the publication dates of the monthly statistics. They added that they would like to

see more information and explanation in the early press release that gathers so much public attention. Clearly the Committee considered the issue of public information a critical part of their job of evaluating the indicator.

The net effect of this controversy was to vindicate the indicator. The Presidential committee, the users and the Congress gave it and its sponsors a ringing endorsement. (92) The methods, concepts and presentation were "improved" as a result of the discussion, but not radically changed. The indicator's success in meeting this challenge was proof that it had arrived in some real sense, that it had become institutionalized and was widely accepted as a reliable policy tool. It might not be invulnerable, but it would require considerable effort to dislodge, alter, or politicize it in the future.

CHAPTER IV

ECONOMIC AND SOCIAL POLICY IN THE SIXTIES: A MULTIDIMENSIONAL
INDICATOR EMERGESA New Era

Developments in the theory and tools of social and economic policy in the sixties and changes in perceptions of what ought to be done changed unemployment data and the way it was used. Since 1960 many more dimensions of unemployment data have come into wide use. That is, policy-makers have come to talk, not just of the overall rate, but also of the rates for special groups, of the duration of unemployment and the characteristics of the unemployed. The concern for the target overall unemployment level still exists, but the models for choosing it have become more complex. The precision and reliability increased and this fact, along with the seasonal adjustment had meant that users and the public put increasing faith in very small movements in the data. Moreover, new tools and perceived problems required some new concepts. In short, the new problems perceived in the sixties, opportunities presented by new methods, and new willingness to take action led to an evolution of the indicator and its uses. It became less a single, national figure and more a multifaceted indicator. It was used in a greater variety of more complicated models, and it was manipulated in more elaborate ways. It became, if anything, more politically potent than ever and more widely used.

Fiscal Policy Since before the passage of the Employment Act, economists and even some decision-makers were aware that the level of government spending or taxation could be manipulated to halt a recession or put brakes on an economic boom. But the large-scale econometric models which permitted precise estimation of the effect of various changes were not to be developed until the late fifties. Certainly, Congressional debate over the Employment Act revealed that Congressmen understood very little of the most basic economics. For example, when they talked of government creation of jobs, many showed no recognition of a multiplier effect most would recognize now. They assumed that the total number of jobs created as a result of government action was equal only to those directly created and did not see that many would be indirectly created.

By the time of the great debate on the causes of unemployment in 1958-1960, Congressmen and administrators were considerably more aware of economic theory and its potential use in manipulating the economy. The debate did not settle whether inadequate demand or structural problems in the labor market (p. 151) were the causes of the persistent high unemployment, but it did call attention to the possibilities and help define policies to deal with both problems. In the sixties federal policy attacked unemployment from both the structural and the demand vantage points. Both strategies were to make new demands on the data.

The commitment to deal with unemployment and confidence in economists' calculations led the Congress to approve the tax cut of 1964. It was unprecedented that Congress would make the counterintuitive move of cutting taxes to increase the GNP and ultimately raise the tax yield. This was exactly what happened and the results were close to predictions. The national budget was not unbalanced and unemployment improved. It was a victory for the Keynesians to be able to show that the theory of inadequate demand was explanatory and would even permit calculation of results of policies.

Ever since, fiscal policy measures have been more accepted as national policy tools which could work. This type of policy solution maintained the focus on the aggregate national unemployment rate, but also required more than ever that it be dependable, reliable and accurate. The potentiality that significant decisions might be made to implement fiscal policies designed in part to improve unemployment made the exact figures more important than ever. Certainly the demands for improvement have increased as the policy developed. Moreover, the potential impact of deliberate fiscal policies made it more important than ever to settle the debate on the relative roles of structural problems and inadequate demand in causing unemployment. The desire to shed light on the argument was a principle factor leading to the development of an experimental program measuring job vacancies in 1969, and the publication of regular data. (93)

The number and type of job vacancies could be compared with the number of unemployed to evaluate whether demand was too low or the unemployed improperly qualified. The increasing use of fiscal use to deal with unemployment affected both the quality and nature of the data demanded. An Active Manpower Policy. The debate of the late fifties served to awaken an awareness of the potential of a manpower policy to deal with unemployment. However, this type of approach required wider use of components of the unemployment rate than was common before. The aggregate national figure was not very useful in selecting appropriate programs.

In brief, manpower policy was an attempt to deal with imperfections in the labor market. (94) It rested on the notion that unemployment was, to some considerable degree, caused by a mismatch between jobs available and the unemployed. Either the latter's skills, age or location did not match the requirements of jobs, or perhaps they simply did not know where to find jobs. The implication, of course, is that the principle problem is not one of inadequate numbers of jobs because, in that case, the focus would be on improving demand. The usual method of dealing with this is to alter the job-seekers' characteristics through training rather than to alter the jobs. The principal exception has been the effort to develop new industry in depressed areas. Information services for job seekers are also a part of manpower policy.

The U.S. had virtually no manpower policy until the 1960's. The Employment Service, which existed as an information service since 1920, was of little value since it was always optional for employers to list opportunities with the service. During the recession of 1949 President Truman initiated the policy of channeling federal spending toward areas of "substantial labor surplus," but we did not go much further with manpower concerns until the passage of the Area Redevelopment Act, in 1961 and the Manpower Development and Training Act of 1962. These too were the basic legislation for manpower policy. They have been reevaluated and amended several times since their initial passage with the aid of labor force data. The former provides special assistance for areas with serious labor surplus and the latter sets up a range of training, retraining and general education programs for the unemployed.

To administer, evaluate and amend both these programs a wide variety of labor force data was used. It was important to know the incidence of unemployment criterions of the age, sex, education or skills of the unemployed to plan training programs and select highest priority groups. The duration of unemployed was important now too and the incidence of long-term unemployment since those who could readily find new jobs were not the focus of manpower programs. Suddenly many of the data economists and BLS statisticians had been

citing for years became important to politicians. This new interest, combined with the assessment of the Gordon Committee, provided the justification for a considerable expansion of the sample and the questions in the labor force survey during the sixties.

Manpower policy has received considerable attention recently with unemployment and inflation both rising. It may be one way to keep unemployment down without adding to inflation as fiscal policy would. Also the recent hypothesis that the Phillips curve is shifting (95) suggests that structural unemployment is getting worse and causing the persistent high inflation. To use manpower policy efficiently (and the Nixon Administration has apparently opted in favor of economic controls instead as the primary tool) job vacancy data is an important tool. The data must provide sufficient detail on the nature of job openings to assist in planning training programs and providing information to the unemployed. The pressure for improving manpower policy has undoubtedly led in part to the new commitment the BLS has made to developing a job vacancy series.

The Problem of Poverty affects Unemployment Data. The inception of the Poverty Program in 1964 marked the awakening of a new set of values and problem perceptions which were to influence the thinking about unemployment data. They were to turn attention further away from the overall national unemployment data and focus it on such things as comparative unemployment rates by race and income of the unemployed and the number who would be family breadwinners. The concern with poverty also demanded the creation of new concepts as well since the unemployment data had been designed to reflect the state of the labor market and not the needs of the unemployed.

The unemployment data requirements for planning or evaluating anti-poverty strategies grew out of models of the causes and effects of poverty. The original poverty program was based on the notion that it was the failure of opportunity for youth that was a principal cause of the attitudes and circumstances of the poor. A common way to characterize the problem of poverty in the mid-sixties was in terms of a cycle in which the lack of a job led to poverty, which led to the eroding of incentives and lack of opportunity for education, which in turn meant that children would not have jobs. Social analysts and the public saw the problem of poverty in the sixties as primarily one of the long-term poor, the fundamentally disadvantaged. It was just being discovered, for example, that many families had been on welfare for three generations. The emphasis was on the urban poor or the "pockets" of rural poverty in depressed areas.

The kinds of solutions proposed for these problems included training programs focusing on the so-called "hard-core" unemployed, rather than the displaced worker. Programs such as the Job Corps were designed not only to train workers but also to remove them from their harmful or demoralizing environments. Poverty was seen as geographically defined and programs were concentrated in designated poverty areas. Basic education as well as skill training became part of the remedial effort.

The tremendous investment and public attention given to anti-poverty efforts provided an incentive for new formulations and concepts of labor force data. Manpower policy had focussed attention on the unemployed individual rather than simply on an undifferentiated labor market. Poverty policy intensified this focus, emphasizing the relation of unemployment and need. In trying to identify the hard-core unemployed, it became clear that many would not be identified at all through the labor force survey since they would be listed as not in the labor force. Moreover, a problem of the poor was also that they had inadequate work. Many might be hidden among the official "employed" totals though they were able to get only casual, part-time work.

These issues have led to a BLS effort to define a new concept of "subemployment" or "underemployment." (96) Initial experimental surveys suggest that the number of unemployed by standards including broader considerations is about 50% larger than the number counted

under present definitions. (97) The BLS also conducted a special labor force survey in poverty neighborhoods originally in conjunction with the Concentrated Employment Program. The highly localized data was needed for programs designed to lower unemployment which was disproportionately high in certain areas. The usual survey questions were inadequate to get at the problem of unemployment in such neighborhoods and had to be supplemented with questions on the desire and need for work.

Thus, once again, changing problem perceptions and changing realities made new demands on the data. New concepts and new dimensions were added to the unemployment data and its uses as a result of a concern with poverty. These will, it seems, require the same political tests that the earlier uses did. This data too tends to force problems on reluctant administrators for solution and permit unfavorable evaluations of policies. The Nixon Administration in late 1971 called off urban poverty neighborhood surveys, which have shown very high unemployment, on the pretext that the sample suddenly became out of date with the 1970 census. (98) Other less politically potent surveys based on 1960 census data have continued, however. The results of a special unemployment census using subemployment concepts have mysteriously been suppressed. After one newspaper report on Washington D.C. results the data suddenly became "unavailable" through the Government Printing Office.

A few complaints have been heard, but there is no really organized interest groups yet to protect these data.

Current Prospects for Unemployment Data

In spite of Nixon Administration efforts to suppress or politicize unemployment data, it seems likely that its informed supporters both inside and outside government will protect it from the kind of manipulation that would make it useless. Groups representing the range of political persuasions have become convinced they have a stake in accurate, reliable data and they have organized their own investigatory groups. Moreover, the monthly congressional hearings on the data keep developments in the indicator at least potentially on the front page and provide an opportunity for critics of all kinds to be heard. The basic data and survey seems likely to emerge unscathed, particularly if unemployment begins to decline and the data becomes less politically charged.

The trend towards the proliferation of dimensions in the data and their widespread use in increasingly complex models seems likely to continue. Manpower and poverty policy, have required the exploration of more variables, and it seems likely that many of these - like for example, a measure of the hard-core or perhaps long-term unemployed - will take on the same importance that the national unemployment targets did at an earlier stage. This will undoubtedly depend on whether our commitment to such policies continues, on the process through which disputes about the data are handled, and finally on success in defining appropriate concepts.

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PART III

THE STANDARD BUDGET: A MEASURE WITHOUT A THEORY

PREFACE

A Controversy over Substandard Wages

On February 4, 1972, five Congressmen joined the Distributive Workers of America in picketing a Manhattan chandelier manufacturer. Their action was a sign of deepening controversy between the Cost of Living Council on the one hand and Congress and Labor on the other. (1) If the latter were to have their way, over fifty percent of the work force would be exempted from wage controls and, in the Council's view, the war on inflation will be seriously set back. The immediate issues centered on an indicator, the Bureau of Labor Statistics "Lower Level Budget," (2) but the underlying reasons for the discussion involve basic values.

After President Nixon instituted wage and price controls in 1971, Congress amended the enabling act to read "Wage increases to an individual whose earnings are substandard or who is amongst the working poor shall not be limited." (3) The report of the House Banking and Currency Committee stated its understanding that this exemption from control would apply to those whose earnings were below levels established by the Bureau of Labor Statistics. (4) The Bureau had been collecting data on family budgets for the Congress over a period of close to 100

years and, at the express request of Congress, had on several occasions composed and priced standardized lists of goods and services to represent a moderate level of living for a typical American family. The Bureau designed such a standardized list in 1967 for a lower living level in response to widespread public concern for poverty. Congress was interested in a standard by which to evaluate needs for and results of the Poverty Program.

In 1970 this Lower Level Budget, designed for the average-sized 4-person family, cost \$6,960. The Cost of Living Council, unable to accept so high a figure, made "statistical adjustments" to bring the criterion for substandard wages to an annual \$3,968. This level, they said, was appropriate because it assumed, not one wage earner per family, but the average of 1.7. Their lower income line would mean that only twenty percent of workers would be exempted.

The most significant aspect of the argument in the present thesis is the fact that it has occurred at all. The standard lower level budget is, an "official" statistic published by the highly respected Bureau of Labor Statistics (BLS), just as is the unemployment rate. No government agency is likely to reformulate the official unemployment rate for its own purposes, nor is anyone likely to pay attention if an agency did so. Individual agencies, Congressional committees and civic and labor leaders, however, use a wide range of income criteria in analyzing problems and establishing social programs or wage demands. Many have used the official standard budgets in such contexts, but

many have not. These same people, on the other hand, have almost unanimously accepted and used official unemployment figures without question, though recent studies of "hidden unemployment" suggest that the figures may well have been wide of the mark. Certainly, these data users have all had reasons to want the figures higher or lower, but they still accepted the official ones. They apparently agreed to agree on them.

Moreover, recent Administration efforts to suppress "technical" analysis of unemployment figures have met with powerful, wide opposition and little, if any, support. In contrast, the Commissioner of Labor Statistics in the fall of 1971 proposed discontinuing the standard budget data series. Though this threat is far greater to the standard budgets than the current threat to unemployment figures, the opposition has come from comparatively few sources and received little publicity. At the present writing, the possibility remains very real that the series will be ended.

The question to which this study will address itself then is how it is possible for an "official" statistic like the budget, which has existed for so long and is still very popular, (5) to have its very existence suddenly in doubt. Many of the answers lie in the particular form of some current political questions on wages and welfare. The budgets provide an excellent weapon to many in this discussion and, accordingly, are unwelcome to others. But this answer still begs the question, which is how is it possible that such an indicator might

be eliminated because it has suddenly found enemies? The unemployment indicator's opponents, have never been able to jeopardize its existence.

It is the contention of this thesis that the central impediment to the indicator's independence from such attacks lies in its own nature. It has never become institutionalized like the unemployment rates with its own coterie of powerful supporters and organized groups keeping it under the scrutiny necessary to maintain public confidence. One reason is that we as a nation have not had an unambiguous commitment to policies which would require the use of the budgets in important contexts until recently.

But the more significant reason is that the indicator itself lacks the conceptual clarity and objective methodology which are critical to common understanding, wide acceptance, and genuine usefulness. The standard budget is a measure of an imperfectly defined concept. It is designed in a highly empirical way; its components are selected on the basis of little theory relating measurable phenomenon to concept. The final measure fits into no large theory of human behavior. The result is that the budget is understood in different ways by different people, that it is filled with hidden value judgments, and inexplicit, partial models or assumptions about behavior. Accordingly the budget is not widely trusted, or understood.

It is possible, even likely, that if the budget had been a less ambiguous indicator, it would have been accepted and used in many policy contexts through the years than it was. Certainly the opportunities

did arise since the adequacy of income was frequently an issue, but almost invariably the budget was criticized, actually attacked, or ignored when someone attempted to make it a part of policy discussion. If it had been accepted in such discussion it might well be institutionalized by now in the same manner as unemployment data.

To help us understand why it has not become a similar institution and what its prospects are for the future, this thesis will examine the story of the standard budgets, their origins and development over the years, their conceptual and methodological bases, and the uses, misuse and nonuses of their indicator. Hopefully this story and its contrast with that of unemployment rates will suggest parallels with other indicators planned or proposed for important policy roles.

DEFINITIONS

Before going into the story of how the standard budget developed and came into use, it is important to clarify some of the concepts and terms involved in the story. The definitions do not necessarily fit our a priori notions about the meaning of the terms. Most of the definitions will be expanded later, but this section should serve as a kind of introduction and orientation.

Standard Budget

A quantitative measure of the annual consumption requirements for a family or individual to meet some specified standard of living, such as "minimum subsistence" or "health and comfort." The budget itself may be a list of the quantities and costs of goods and services or a summary figure of the income required to purchase them. It is normally specific to a particular family type and size. Thus a large family purchases an entirely different array and quantity of goods than a small one, and an elderly couple already has many items a young couple must purchase. Federal statistical and operating agencies as well as state agencies, private welfare organizations and special interest groups have all designed budgets.

The budgets are constructed by adding together "requirements" for consumption in different categories such as food, recreation, or housing, each determined in independent and, often quite different ways. Thus budgets are designed, not the way families make choices, starting with a given income and trading off among possible purchases, but rather, determining the level within each category as if it were the only one needed. The selection of budget items even for a single budget is usually based on several kinds of criteria, usually intermingled. These include the judgment of experts or the budget designers themselves about what people want or ought to have, scientific criteria about what people need for their health, and criteria derived from actual consumption patterns. These judgments then may be modified to make the choices mesh

with what is actually available in the market.

Standard of Living

A shared objective of a group, for a style and level of living, a realistic ideal or norm. This term has also been used to mean the actual way people live but here it will have the former meaning, as the normative conception is more usual in the U.S.

Level of Living

The way people actually do live. It may and usually does approximate the standard of living, though that exists in people's minds rather than in practice. The level may influence the standard, and as it rises, so may the standard.

Standard of Consumption

A shared objective for goods and services. It differs from the standard of living, which is an all-encompassing term applying to the quality of life generally. One's standard of living may decline when the air becomes polluted, though one's consumption standard may increase since it will come to include an air conditioner. The standard budget represents an effort to measure the consumption standard and, as such, is a partial representation of the living standard. For many years, the budget was the closest approximation to a measure of the standard of living, or criterion for evaluating levels of living. Only recently has anyone attempted to measure systematically other aspects of life quality. The literature on budgets usually says they measure the

standard of living, though it means consumption. This thesis will follow the same usage to avoid confusion, though it is imprecise.

Level of Consumption

This item is parallel to level of living and represents the actual consumption level enjoyed. It is this level that we compare with the standard budget to assess the adequacy of consumption in terms of our standard. (6) Again this thesis will use the term "level of living" instead of the more exact one.

Expenditure Surveys

Much of the data used in selecting the goods and services for the budget comes from an expenditure survey. (7) Its objective has been to obtain from families either the amount of expenditure for various categories of purchases or the quantity and qualities of items purchased. In the latter case, the costs may be obtained from time to time in a separate survey of prices. The methods ranged from direct interviewing of families to use of family account books and even, in the early years, the collection of information from local stores about family purchases. The surveys also covered family incomes, and the results are tabulated according to average expenditures in the various categories, usually by several income levels and family sizes, but also by other factors like nativity or, recently, a wide range of social and economic variables. The Bureau of Labor Statistics did most of the major surveys for a variety of reasons, of which budget design was only a secondary objective, if it was involved at all. The purpose was usually to get new

weights for a cost of living index. The data would have to undergo considerable manipulation before it could be used for standard budgets.

Cost of Living Index

Despite its similar sound, a cost of living index is very different from a standard budget. However, its history is closely intertwined with the budgets' history because, in a sense, both measure different aspects of the same thing and more importantly, because they rely on the same data. A cost of living index or, as it has been more accurately renamed in recent years, a consumer price index, is an index in the specialized sense of the word. That is, it is a measure of change, not of absolute level like the standard budget. The level of the index has no meaning except in a relative sense. Thus if it is 1.20, it means prices have risen 20% since the base year, when the price level was taken to be arbitrarily equal to 1.0.

Economists and government statisticians developed the principles of designing such a price index in the first two decades of this century. The basis of the index is a market basket that is, the typical set of goods and services purchased annually by the blue-collar worker with a family. Statisticians select representative items from this market basket, price them, weight them in relation to their importance in the market basket and in relation to the other similar items they are taken to represent, and finally combine them into a single, weighted average.

The choice of weights for the index depends heavily on expenditure surveys since the weights for expenditures are those actually found in

family budgets. However - and this is where confusion with standard budgets may enter in - the design of a consumer price index depends only on average consumption patterns. The relative importance of various items in the average working man's market basket differs in many ways from their role in the standard budget.

Pricing the Budget

Although many of the earliest budgets at the beginning of the century specified only the cost of some items, present budgets detail the quantity and quality of all items. The advantage of this specification is that it becomes also possible to price the items in the budget in retail outlets at different times and in different places. The quantity itself is assumed to change more slowly than the prices because underlying life styles change only slowly. In practice, the Federal government and the others who have designed budgets over a long period, have made new quantity lists only infrequently - once every ten or fifteen years - but they have repriced them on numerous occasions in between. (8)

The "Normal" Family

This concept is fundamental to the standard budget and dates back to the first expenditure surveys. In the early years, often only "normal" families would be included in the sample or analyzed. The criteria for the "normal" families included a middle income range excluding poor and rich, and an occupation, usually blue-collar workers or wage earners, although occasionally low-salaried workers as well.

The families could not have too few or too many children and no boarders or lodgers to confuse analysis of expenditures. Collecting agencies often tabulated expenditures in terms of these "normal" families. "Normal" was not average, but a selected family type considered important. There was a normative element inevitably involved. As such the normal family concept was an important antecedent to budgets. Although the concept has been dropped in recent expenditure studies, which in this country now cover the total population, "normal" families are still extracted for special study, including analysis for drawing up budgets.

CHAPTER I

HISTORICAL ROOTS

The forces that originally came together to create the standard budget have left a permanent mark on the indicator. The same kinds of forces continue to exist today, influencing further development of budgets as well as thinking and planning for other indicators. A first essential ingredient in getting the standard budgets started was a widespread conviction that the Federal government had responsibility for collecting and disseminating statistical information - a conviction which is as strong today as it ever was. Budget design on a national scale has required such extensive data that only governments could collect it.

Another motivation behind the data collection and analysis essential to budget design was a general curiosity about the human condition. In the nineteenth century one focus was on the structure of family life, but today sociologists and policy-makers have defined many questions which provide the framework and motivation to the creation of new statistics.

The third force was from the empiricist tradition. In the latter part of the nineteenth century a number of statisticians and engineers around the world decided to attempt to further knowledge about the human condition by gathering as much data on it as possible. The fact that they did so at that time, the information they chose to gather, the

methods they established, and ways they tabulated the data all left their mark. Empiricists today are undoubtedly leaving their mark on future indicators as they stockpile information in vast computer storage.

Then too, some specific issues spurred on interest in the data, creating a demand for budgets and shaping their nature and the way they would be regarded and used. For the standard budgets the issues that motivated their original development have been the same recurring ones throughout the years: poverty and wage rates. Certainly important issues of the day can focus attention on needs for specific data. Indeed such issues may be critical to the evolution of an ordinary statistic into a well-used indicator.

Finally in the history of the budget at least one man played a catalytic role in bringing the forces together. In doing so he left his personal stamp on the indicator and the institution that produces it. His position, knowledge and foresight combined to give him the opportunity to capitalize on certain events and situations and set up the data collection, and methods that were the essential foundation for the budgets. It is probably not chance that someone came along to do the job he did, but it is certainly chance that he combined the particular views and capabilities that he did.

Government Responsibility for Statistics

The idea that the Federal government has responsibility for gathering data goes back to the original U.S. Constitution, which included requirement for a regular census. The Federal government and state governments accepted responsibility for statistics gathering on many subjects long before they accepted responsibility for action. In 1869 the Commonwealth of Massachusetts set up the Bureau of the Statistics of Labor to gather and publish data pertinent to the welfare of the rather large industrial working class in the state. Other states followed suit, as did the Federal government in 1884. Though congressmen and labor leaders among others had advocated the establishment of a Department of Industry or Labor since the Civil War, Congress 20 years later agreed to establish a Bureau but empowered only to gather labor statistics. It was not until 1913 that Congress finally set up the Department of Labor "to foster, promote and develop the welfare of wage earners of the U.S., to improve their working conditions, and to advance their opportunities for profitable employment." (9) This last development was so long in coming because the positive policy role was almost invariably less acceptable than the seemingly benign statistical one. This attitude is quite pervasive and also prevailed, for example, during the first discussions of the unemployment indicator, at the 1921 President's Conference on Unemployment.

A Senate report in 1892 on the results of a special survey a Senate resolution had authorized, expresses evidence of the demand for

statistics and for budget data in particular:

"One of the principal causes that led to the adoption of the Senate resolution (to gather certain data) was undoubtedly the existence of a constant demand from legislators and economic students for reliable statistics in regard to the course of wages and prices in the U.S. The absence of such statistics has led to a constant and interminable dispute over the facts in every economic discussion. Without them it has been impossible to judge even with approximate accuracy of the progress of the people of the country and the changes which have taken place from time to time in their relative condition." (10)

Amassing Data

The statisticians or empiricists' approach to analysis, that of collecting large quantities of data, dominated nineteenth century research on family life styles. (11) With this method one can perhaps be more certain that the data one does have is representative, but one must be content with simpler and get from a more intensive, narrower study. (12) Moreover, those whose principal interest is in amassing quantities of data tend not to be very selective. They collect data with hope or intuition that it will be useful, but no explicit model of what is needed or why. The ways they formulate and tabulate the data may be chosen arbitrarily or for reasons irrelevant to later concerns, and at best they may provide distorted categories for analysts, or simply shape the framework in which later analysis will occur. At worst, the data will lie unused

forever.

While the empirical approach has its drawbacks which did leave the budgets with handicaps, it would not be fair to downgrade the contribution of these nineteenth century statisticians. Without their monumental efforts, it is doubtful the budgets would have ever been created. In their interviews of thousands of families, and organization and tabulation of the data, they established basic methods, questions and categories that are still part of current data collection and on which budget designers must still rely.

Ducpétiaux, a Belgian statistician who did major work in the 1850's, was one example of such a statistician. He was a follower, like many of the others, of Adolphe Quetelet, who had strongly advocated the application of probability theory to social data. The insight was very important that data on large numbers of people selected approximately randomly (there was still a long way to go before statisticians understood how biases arose in population sampling) would reveal patterns in which individual peculiarities cancelled out. Ducpétiaux interviewed hundreds of workmen's families about their incomes and expenditures. He tabulated results by family income and expenditure category, such as food, housing etc. and he focussed attention on what has been termed the "normal" family, with three or four children. His purpose was to evaluate the adequacy of wages, which he did by such techniques as comparing workers' diets with government-supplied soldiers' diets. The basic tabulation categories, indeed the whole concept of collecting

and organizing the family expenditure material this way, which was to greatly influence the way budgets were designed, is due to Ducpétiaux and his colleagues. The "normal" family was to become the budget family. Ultimately, the budget would be a more elaborate attempt to do what he had tried to do - evaluate wage adequacy.

Laws of Consumption

Another aspect of the empiricist movement which was to leave its mark on the budgets in some subtle ways, was the search for "regularities" in the masses of data. One man in particular in the late nineteenth century proposed some "laws" of consumption which were to dominate or color most later analyses of family consumption and to become hidden assumptions in budget design. Ernst Engel, a Belgian engineer-turned-social-scientist and follower of Ducpétiaux, examined the data in particular for a relation between income level and the proportion of income spent on various consumption categories. (13) Engel was looking for a measure of comparative welfare. He hypothesized that "the proportion of outgo used for food, other things being equal, is the best measurement of the level of living of a population," and "the poorer an individual, a family, or a people, the greater must be the percentage of their income necessary for the maintenance of physical sustenance, and again of this a greater portion must be allowed for food." (14)

He based the notion on the data which showed, among other things, that the lower income families tended to spend a greater proportion of their income on food than wealthier ones.

Engel's simple contentions and, in fact, the entire principle behind his approach, has dominated family consumption analyses and the design of expenditure studies as well as budgets ever since. His idea of ranking families by income and looking for patterns in the proportions of income spent on particular categories as an index of well-being is basic to the design of the current BLS budgets (see p. 271). The concept that the proportion spent on food in particular was a reliable index of one comparative welfare in any society or situation was a particularly attractive one then, as it is now. It seems to bypass the welfare economists, who argue that it is impossible to compare individual welfare levels.

Engel's principle has reappeared often, but most notably as the basis of the current "official" U.S. poverty line. This line is an income equal to about three times the cost of the cheapest adequate diet for a family. The rationale, which clearly goes back to Engel, is that the average family spends one-third of its income on food, and therefore, a 33% expenditure of income on food represents an adequate overall welfare level. If one can purchase an adequate diet for that proportion of income, then one can purchase adequate amounts of other things. There are certain gaps in this logic, but the outlines are Engel's.

Expenditure surveys in this country and abroad tended to be designed to test the truth of Engel's "laws" and to expand them. (15)
The effort undoubtedly consumed much of the energy and attention of

consumption analysts. Certainly the questions they asked and the ways they organized the data were greatly determined by this objective. The patterns set in the early expenditure surveys have remained fairly constant to the present. The information contained in the survey both limited and shaped the way budgets could be designed.

Engel's consumption "laws" were not really laws, however, in any scientific sense. That is, they were not behavioral or causal relations tested in experimental or quasi-experimental situations. (16) Rather, they were observations on cross-sectional data about spending patterns of income groups. The laws did not say that the income-expenditure proportion relationship was immutable or provide a causal model for the relation. One could not, on the basis of Engel's evidence, say that increasing an individual's income would change their proportion of expenditure on certain things, nor could one predict how changing relative prices, life style or social values might affect the relation. It was, after all, no more than an observation of a broad correlation, without an explanatory element.

The peculiar and unfortunate aspect for the future of budgets was that analysts' attention became riveted on Engel's laws in such a way that they did not develop other kinds of analyses. No other empiricist of Engel's capabilities followed on to develop other descriptive laws, nor did any theoretician take the observations and look for explanations and models of the underlying relationship. The work on patterns of family expenditure never was to progress much beyond where Engel left it.

Carroll Wright Plays a Crucial Role

Often one individual in the right place and at the right time may facilitate or, indeed, make possible a new program, or new approach to public problems. It might have happened any way, though one can never be sure. But one individual most certainly may hurry or slow the process, and if the person has great capabilities and vision, he will leave his mark on the product.

Carroll Wright, the first U.S. Commissioner of Labor Statistics from 1885 to 1905, was such a man. (17) His contributions were several. He pulled together the best ideas about expenditure surveys, conceived of important uses for them, and convinced Congress of the need for them. Under his direction, the Bureau of Labor Statistics conducted the first two Federal expenditure surveys, representing a major commitment of money and effort. The methods of the surveys established the basic patterns which U.S. surveys still follow. Moreover, he established a firm tradition of nonpartisan professionalism for the Bureau which also remains to the present.

The Bureau was never to design a budget under his guidance, but many of the methods and approaches to budget design were to depend on the patterns he established. Certainly the budgets would never even have been a possibility if Congress had not been persuaded to authorize expenditure surveys, or persuaded of the usefulness of measuring wage adequacy. Nor would national budgets have had any significant impact if the Bureau had not had the reputation for impartiality. A budget

is too value-laden a measure to withstand doubts about its designers.

Wright, as Statistics of Labor Commissioner in Massachusetts in the 1870's, was interested and well-informed about European statistical work, particularly on family expenditures. He supervised the gathering of data in Massachusetts similar to that of Ducepetiaux for comparisons of the workingman's living levels here and abroad. (18) He used the data also to test some of Engel's laws, which were always to be of particular interest to him. When the Federal Bureau of Labor was established Wright, as the leading practitioner of government statistics, was the nonpolitical choice of a lame duck President. He was reappointed in three administrations of both parties. He was to establish very quickly the Bureau's reputation for competence, for being influenced by day-to-day politics and for producing a service equally valuable to both sides of important questions.

Wright took advantage of one of the major public issues of 1888 to create a demand for expenditure surveys. The question of whether or not to reduce the high protective tariffs was among the most consuming and political problems of the period. International trade was an important part of the economy and congressional opinion on the tariff divided very much on party lines. The Republicans wanted to protect home industry in the North, and Southern Democrats were interested in buying manufactured goods more cheaply from abroad. In the Congressional debate in 1888, proponents of reduction argued that the levies were much higher than the cost of U.S. labor would justify,

while opponents said the tariff meant U.S. workers had higher wages and real incomes than European workers. They used Wright's data from his Massachusetts survey, which he had compared with Belgian and English expenditure data. They pointed to the fact that U.S. workers were able to save a larger percentage of their incomes. The latter contention was almost certainly injected into the debate by Wright, as a comparatively technical comment.

One of the central arguments of this critical debate had come to revolve around "facts" of family living and the comparison of real income or welfare of U.S. and European workers. Wright seems likely to have been responsible for defining the issues in such a way that massive surveys would be called for. He had written a pamphlet some years earlier on the scientific bases of tariff legislation, in which he developed the thesis that a tariff, to be just and fair to all, must be based on the comparative cost of production in competing countries. This would include the cost of labor which, by implication, was to imply adequate consumption levels of necessities. An associate of Wright's wrote that Congressman Mills and his colleagues accepted his idea and entrusted Wright with carrying it out. (19) He did so with a survey in 1888 of over 8,000 families, which was popular enough to be followed by an even larger one of 25,000 families in 1901. (20)

Wright appears to have provided the channel between the intellectual developments and the politicians, and to have manipulated contemporary issues to further his goals. The remarkable fact is that leaders of

both parties backed his proposals. Both the Senate and House voted virtually unanimously to conduct a cost of production survey, though it was clear that the results could cut either way. Wright had apparently managed to convince them that the accurate "facts" would be in the interest of all sides.

CHAPTER II

PATTERNS OVER TIME

Though a tremendous number of researchers and analysts conducted expenditure surveys and designed budgets (21) over the years, and a large number of individuals and groups used the data, the methods, uses and supporting institutions do not show the growth or evolution that they did for the unemployment indicator. It is only recently that there has been some general agreement on methods and a diminution of the number of competing budgets. In the thirties there were about eight or ten competing unemployment figures, and for at least twenty-five years, the single official figure has been virtually the only one. Moreover, institutions for its production and use have grown and evolved while its methodology has been gradually improved.

For the standard budget, on the contrary, the methods of today are similar to the original ones at the beginning of the century. Few of the problems have been resolved. Moreover, the institutions that would support and promote the indicator have not emerged. How and why there has been the lack of methodological and political development may be partially explained by the overall patterns in the indicator's history. These will be outlined briefly here before going into more detail about specific events, because many of the general patterns do not clearly emerge from the focus on individual events.

FIGURE 1 CHRONOLOGY OF STANDARD BUDGETS IN THE U.S.

<u>YEAR</u>	<u>POLITICAL AND INTELLECTUAL SETTING</u>	<u>THE DEVELOPMENT OF FEDERAL BUDGETS</u>
1850-1900	Development of methods and practice of expenditure surveys, Europe and U.S. Massive data gathering, dominated by the empirical approach.	
1853	Ducpétiaux studies expenditures of 153 Belgian families, establishing important methods of data collection and tabulation.	
1850-58	Ernst Engel analyzes published expenditure data and formulates "law" of the relation of income to proportion of expenditures for necessities.	
1875	Carroll Wright as Massachusetts Commissioner of the Statistics of Labor produces a study of expenditures of Massachusetts Workingmen's families and a comparison with Belgian and English data.	
1884		The U.S. Bureau of Labor created. (To become the Bureau of Labor Statistics).
1888	Congressional debate on tariff reduction. Wright's Massachusetts data becomes part of the debate. Congress orders Bureau of Labor to conduct expenditure survey of workingmen's families to discover the cost of living and evaluate wages.	

YEAR

POLITICAL AND INTELLECTUAL SETTING

THE DEVELOPMENT OF FEDERAL BUDGETS

1888-91

Wright as Commissioner supervises the first U.S. Federal expenditure survey of 8,500 families.

1880-1920

Growth of union activity and bitter disputes with management. Movements for labor reform, higher wages and better conditions.

1901

Congress orders a new expenditure survey for up-to-date living cost data and the design of a food cost index.

Wright supervises an expenditure study of 25,440 families.

1902

The first standard budget published in England, B.S. Rowntree's effort to define a "poverty line."

1902

Anthracite Coal Strike Commission hears arguments about the need to pay workers to maintain the American Standard of Living.

1903

First U.S. standard budget, for New York City by Louise More. A less than average, but above subsistence level.

1903-20

Many minimal budgets designed by state, city, and private agencies to evaluate wage levels and plan welfare.

1907

Congress orders a study of the condition of women and child wage-earners.

YEAR

POLITICAL AND INTELLECTUAL SETTING

THE DEVELOPMENT OF FEDERAL BUDGETS

1909

First Federally designed standard budget done by BLS for families of cotton-mill workers in connection with the Congressionally ordered study. "Minimum" and "fair" standards.

1915-20's

Public and private groups start to design a higher level, "comfort" budget to evaluate wages.

1914-18

The War. Institution of government controls and stepping up of production.

Several Federal expenditure studies, local and nationwide, of wage-earners and clerical workers to construct a full cost-of-living index and measure wartime changes.

1917-20

The National War Labor Board uses a wide variety of budgets to settle wage disputes and help determine the substandard wage. Arbitration boards also use budgets extensively in wage disputes.

1919

The Joint Commission on the Reclassification of Salaries requests an official budget from the BLS for its use.

The first complete quantity and cost budget, designed by the BLS. The "Health and Decency Budget" for a family of five in Washington, D.C.

1920

BLS designs a generalized version of the health and decency budget for the nation.

1929

Onset of the Depression

YEARPOLITICAL AND INTELLECTUAL SETTINGTHE DEVELOPMENT OF FEDERAL BUDGETS

1934-36

Institution of massive work relief programs in the U.S.

Massive Federal expenditure surveys to revise weights in the cost of living index and general research on living patterns in Depression.

1936

WPA designs Emergency and Maintenance Level budgets for worker's family of four and prices them in 59 cities, to decide wage levels for its worker.

1939-43

BLS reprices WPA budgets annually.

1939-45

The War. End of the Depression.

1942

Presidential Order declaring substandard wages exempt from wartime controls.

225

1942-43

Controversy over the War Labor Board's use of the cost-of-living index as a wage increase guideline.

1944

Textile workers price (with BLS aid) WPA Emergency Budget in mill towns to demonstrate to War Labor Board that their wages were substandard.

1945

Congress requests the BLS to design a new standard budget on which to base analyses of income tax revision.

1946

BLS publishes The City Worker Family Budget, CWFB, a "modest but adequate" standard for the urban worker's family of four.

YEARPOLITICAL AND INTELLECTUAL SETTINGTHE DEVELOPMENT OF FEDERAL BUDGETS

1946-51

BLS reprices CWFB annually.

1950-51

BLS conducts a nationwide expenditure survey to revise weights in the Consumer Price Index (CPI).

1959

BLS does interim revision of CWFB at request of Congress. Weights based on 1950-51 survey.

1960-61

BLS conducts nationwide expenditure survey to revise weights in CPI.

1964

Inception of the War on Poverty. The Administration declares an official poverty line.

1965

BLS, for the first time, requests funds from Congress to do a budget revision.

1966

Congress authorizes funds for three budget levels for families and elderly couples on a continuing basis.

BLS requests funds to do two levels of budgets for families and elderly couples.

1968

Election of a Republican President

BLS publishes revision of CWFB for 1966.

1969

President Nixon announces proposal for a Family Assistance Plan

BLS publishes three budgets for urban family of four, "lower", "intermediate," and "higher."

YEAR

POLITICAL AND INTELLECTUAL SETTING

THE DEVELOPMENT OF FEDERAL BUDGETS

1970-71

Congressional debate over new welfare proposals uses BLS lower level budgets.

1971

President invokes economic controls provided under the Economic Stabilization Act to forbid controls on substandard wages. The Committee report uses the BLS lower budget as a criterion.

The Commissioner of Labor Statistics proposes eliminating the budget series.

1972

The Cost of Living Council defines substandard wages at a level below the BLS budget.

A Federal Court declares the Council acted against the intent of Congress in defining substandard wages so low.

The Council redefine "substandard" at a higher level, exempting 10 million additional workers from wage controls.

The most notable pattern in the history of the standard budgets is its repetitiveness. Interest in family budget data and setting budget standards rose and subsided with the times. It was greatest whenever real incomes were caught between prices and some kind of wage depressing factor. That is, it was greatest during war times, when prices were rising and wages were controlled, and during depressions. In the intervals research efforts on methods or concepts died out. When there was a resurgence of interest, most workers had to start afresh and could not build on past experience. Moreover, this transitory interest in the problem meant that neither Congress nor interest groups felt it necessary to set up permanent arrangements to assure and oversee the regular collection of data and design of budgets. Though the BLS was authorized to conduct expenditure surveys every ten years, it was for revision of the cost-of-living index, not budgets.

Each time a new U.S. budget study has been authorized, until 1965, it has been at the instigation of Congress rather than an interested executive agency. Though many Federal agencies use budgets in their analyses of public problems and in setting assistance standards, none has taken the responsibility for asking for or conducting new research. The BLS particularly has shied away from the budgets primarily, it appears, because of their highly normative nature. If they had taken a continuing interest, perhaps the history would not have had this erratic quality. And though Congress has taken the initiative in asking for budgets, it was always on an ad hoc basis. A temporary

committee on salaries asked for them in 1919 and the House Appropriations Committee asked for them in 1945 and again in 1959. It was never a permanent legislative committee that might have taken a long-term interest in the data and developed an expertise, as one did for unemployment. Indeed the demand for budgets was never in connection with a legislative program; if it had been it might have helped sustain the interest in the data through slow periods.

Another aspect of the historical pattern is that by far the greatest effort and creative interest in family budgets occurred at the beginning of the story, the latter part of the nineteenth and early part of the twentieth centuries. The greatest input of ideas and the largest volume of work was at that time. The majority of methods and approaches used today are basically the same as those developed in the early period. There have been changes, but marginal ones, particularly in comparison to the methodological change in unemployment data collection that came with the institution of the survey in 1940. The basic idea conceived 70 years ago remains today. Data is collected by home interview, a standard budget is structured by adding together ideal amounts of various categories of expenditure, selected by combination of consumer-based criteria and expert judgments.

Although the number of studies was great, far more than for unemployment data, they did not seem to add up or greatly capitalize on one another's experience. Certainly the greater volume of effort did not produce correspondingly greater results than the work applied

to unemployment. A principal reason for this may well have been the highly empirical tradition in which most work was done. Data was collected without much guiding theory and the budgets put together without much reference to sociological or economic theory. In fact, the separation between theorists and data collectors has been almost complete throughout the period. (22) Economists have been interested in the data only to discover a relation between savings and income, to get "propensity to save" variables for econometric equations. Otherwise the data collection, tabulation, and analysis has proceeded very much on an ad hoc basis and much of the data amassed has been virtually unused.

Finally there has been a tremendous diversity and separation among the designers and among the users of budgets. The purposes were so varied in government and outside that users had little to bind them together outside of their interest in the data. Its uses were less at the national policy scale than unemployment data so the data received little nationwide press, which might have unified thinking about it. Without such a press and without common interests to turn users into lobbying groups, the public's attention never was to focus sharply on issues surrounding the indicator.

Because of the comparative lack of developmental stages in the history of budgets, this study will examine their characteristics and uses in ways which are not primarily chronological. In general the story of the standard budgets is one story told over and over. The

central focus of this study is the search for possible explanations for this stagnation, this failure of the indicator to become an important, firmly entrenched tool of national policy.

CHAPTER III

PRINCIPAL STANDARD BUDGETS

The First Standard Budget: Quantifying Poverty

Though the present study concerns primarily U.S. standard budgets, they were designed along parallel lines in Europe and elsewhere. The concept of a standardized budget is British in origin and dates back to the turn of the century. The best known and most influential effort was that of Seebohm Rowntree. His objective was to define a "poverty line" to demonstrate quantitatively the human effects of unemployment and low wages in the hope of social reform. He devised a standard budget based on a concept of physical efficiency. He selected and priced quantities of goods which were supposedly the minimum on which a family could maintain health and activity for a year.

His method had much in common with methods used today, and was in some ways more sophisticated and logically consistent, though in others, less so. First he did a massive study, even by present day standards, using direct inquiry of 11,560 families in the town of York (23) to get data on income, occupations and expenditures. Stratified random sampling was still unknown so he aimed to get as high a percentage coverage as possible, apparently unaware of the severity of potential bias. In composing the minimum budget he was able to

use "scientific" nutritional standards to get food quantities. The 3,500 calories per active male per day including 125 g. of protein is not very different from recommended quantities in 1972 because much research had already been done on this topic. He selected actual items that the poor bought, finding that they could buy efficiently, getting considerable nourishment for their shillings. For housing, he simply surveyed what was available in York, primarily four-room houses, and used its rental cost. For clothing quantities, he examined the amounts bought by the poorest families and inquired of the poor about the cheapest way to purchase.

The final standard was just barely a subsistence budget, allowing nothing for personal care or fresh meat and consisting essentially of food, rent and clothing. He then compared the price of this standard with family incomes to find the number in poverty. This basic idea was to be followed time and again in the somewhat more generous U.S. budgets. Rowntree also developed the concept of two levels of poverty, primary and secondary, which gave a poverty band rather than an arbitrarily sharp line. He also analyzed the life cycle to find the periods when the incidence of poverty was highest. One can respect his insights in this analysis as we observe how analysts in the sixties were rediscovering these issues after at first attempting to use a simple poverty line.

Early U.S. Budgets: "Fair" Standards of Living (24)

U.S. budgets from the start represented a considerably higher level of living than Rowntree's. Their purpose usually was not to find out how many were living in abject poverty, but rather to determine what would be a fair wage or decent level for welfare payment. The concern was for more than physical necessities, allowing usually something for such things as savings, pleasure, transportation, and periods of illness. The various budgets designed in the U.S. before 1918 all represented some socially rather than physically defined minimum, but none were luxurious or even particularly comfortable by contemporary standards. Most involved some local expenditure survey, followed by budget design based on a combination of the researcher's standards and standards deduced from actual consumption decisions. The precise method for selecting the quantities was seldom made clear.

Independent research and city and state organizations sponsored the first budgets. The very earliest U.S. budget appears to be one designed in 1903 by Louise More, who studied the income and expenditures of 200 New York families. Her budget allowed a few pleasures, periods of sickness and unemployment as well as savings. (25) Later, in 1907 Robert Chapin, in an often-cited study, (26) calculated the cost of a "fairly proper standard of living" in New York. His sponsor was of the New York State Conference of Charities and Corrections. The motivation for this and many other studies grew out of social workers' desires to know the exact content and cost of a "normal" standard in order to set income standards for services offered.

Clearly they would not be interested in starvation level incomes as they would provide assistance to those somewhat better off.

The first Federally designed standard budget was unobtrusively done as part of an extensive study ordered by Congress in 1907 (27) on the condition of women and child wage earners. It never was much used. Many of the privately designed standards were far better known at the time, but it did mark the beginning of an official cognizance of the idea of a standard budget. Moreover, the study set out the definition and philosophy behind the budget which was to remain throughout the Bureau's later efforts.

One of the many analyses in this many-volume study (28) involved the specification of "minimum" and "fair" standards of living for cotton mill workers. The object was to evaluate whether wages were high enough to keep women and children in good health or to permit children to attend school instead of working. The Bureau defined the minimum standard as one sufficient to maintain physical efficiency. It had been observed that mill-worker families were ill-fed and underclothed. The question was whether low income was the cause. It was commonly felt that the lower classes did not have the proper values or judgment to spend their income well. For public policy it was important to know if the income was adequate in any case.

"The fair standard" was intended to allow not only for physical efficiency but also for "satisfaction of human attributes." It included such things as tobacco, school books and insurance. It

represented a norm including only things that many families had and supposedly that most wanted. The rationale for use of such a standard in preference to the minimum was that, first of all, it represented a more realistic view of human needs. The report stated that "Human needs as well as human frailties put man into a class where food and shelter are not the only necessities of life." (29)

Secondly, on a more pragmatic level, as long as families aspired to this living level, it could be expected that women and children would go to work to help the family meet it. The data on family incomes and number of wage earners bore out this notion. The "fair" standard was to mark a growing conviction that would become increasingly incorporated into later budgets, that a woman's place was in the home and the children's in school. Only a few years later in 1913 the Bureau conducted a study in Philadelphia and established a "fair" standard level for families on the assumption of only one wage earner, (30) for which they were severely criticized in 1921 by the National Industrial Conference Board, an employer's research group. (31) One of the recurring themes of discussion when labor later used budgets to support wage demands was that the wage should be enough to support a whole family. The employers were to fight a losing battle for the acceptance of more than one wage-earner to a family.

Budget studies continued to proliferate in the years from 1909 to 1920, each with its own separate rationale and sponsoring organization. Most of the standards in the earlier studies represented something like

the "fair" standard, primarily to evaluate wages. The University of Chicago Settlement, a social work organization, in 1909-10 did a study of family budgets in the stockyards district, settling on the price of a "minimum decent" standard. (32) A Factory Investigating Commission in New York and Buffalo in 1914 produced "decency and efficiency" budgets to help evaluate wage levels. (33) In 1916 Congress became interested in a minimum wage law for women and authorized the Bureau of Labor Statistics to do an expenditure survey in the District of Columbia which would also help answer recurring questions on wage earners' standards of living. (34) A study in Dallas in 1917 and one in Philadelphia in 1916 were done to provide a guide for wage advances to municipal employees. (35)

Minimum Comfort Standard

Another type of budget began to appear around 1917, a "minimum comfort" budget, which represented a higher level of living than the "fair" level, something perhaps closer to the proverbial American standard. It was based on the budgets of higher paid skilled workers and included items most people, even those workers, were not prepared to label necessities. The movement was in part instigated by the pressure that war conditions put on prices and wages.

Many of these budgets as well as minimum ones, were designed in direct connection with wage disputes, or wage issues. A professor of consumption economics at the University of California, Jessica Peixotto, prepared a budget to maintain a workingman's family at a "minimum

standard of wholesome living and not mere subsistence." She designed it for the use of an arbitration board called to settle a Railway Conductors' strike in San Francisco. In Seattle both sides of a labor dispute designed and submitted budgets to the appointed arbitration board to bolster their arguments. The National War Labor Board had to settle many disputes, and asked William Ogburn of the University of Washington to establish both minimum and higher level budgets for their use. (36)

The trend continued toward higher level budgets. The reason may have been that fewer people by then lived close to the line of physical subsistence. Also the war was increasing living levels for the more skilled wage earners, and their increasingly effective unions wanted to protect the new levels. In any case, although less formal and carefully documented low level budgets continued to be designed at state or local levels for minimum wage legislation for women or for relief needs, the thrust of the standard budget came to aim towards the middle-class, skilled worker. The American standard of living was an increasingly popular concept.

The Health and Decency Budget: A Congressional Initiative

After the war, a Congressional Joint Commission on the Reclassification of Salaries requested that the Bureau of Labor Statistics provide a quantity budget for government workers' families in Washington D.C. (37) As it would for other Federal budget studies, the authorization came at a period of stress in 1919 after a long period in

which there was considerable evidence that real wages had fallen and not kept up with general prosperity. This was the first of several explicit Congressional requests for normative quantity budgets to aid them in making some specific decisions. As in most other cases also, much of the necessary data had already been collected in connection with expenditure surveys to revise the weights in the cost of living index.

The budget was intended to represent a bottom level of health and decency below which a family cannot go without danger of physical and moral deterioration. It had no provision for savings, vacation or books, but did include some amusements, some health care and contributions to church as well as domestic help with the laundry. (38)

This budget was unusual and set patterns for later ones in that it involved precisely specified quantities and qualities of goods which could be priced over a period of time. Earlier budgets contained quantity and quality information on many items, but on many others where this was difficult to define, simply the cost information was given. The precise description of the items was necessary, however, if the budget was to be repriced at some other time or place.

Moreover, although the Bureau set many of the standards for budget components by judgmental methods, it did call in outside experts to assist in the process of deciding on the appropriate quantities and quality criteria of such things as housing, decreasing somewhat the level of subjectivity.

In the prosperous twenties there was comparatively little further development of budgets and budget concepts as apparently there was little demand. Some of the existing budgets were repriced by the Labor Bureau and the National Industrial Conference Board, as well as the BLS. A series of budget studies that was to be influential for the next forty years did start, however, in this period. Jessica Peixotto, who had designed the 1917 Railway Conductors' budget, became chairman of a privately funded group at the University of California, the Heller Committee for Research in Social Economics. She followed up on her interests to do budgetary studies on different income groups, (39) and soon the Committee's standardized budgets for as many as four income levels were being used and depended on by the California Civil Service and the welfare agencies as well as private business. The pressure of these groups encouraged the institution and maintenance of this budget series.

Depression Budgets: The Standard Declines

Pressure for major new expenditure studies at the Federal level grew with the Depression. As usual the cost of living index was the high priority problem. A high-level governmental committee of experts and the findings of the newly formed Central Statistical Board concurred that the life styles and available goods had changed so much since 1919 that the weights of the index were seriously wrong. (40) The 1919 budgets were hardly useful under Depression conditions.

Ultimately, the Federal government conducted two major surveys, one to revise the weights for the cost of living index and the other, a massive study, to provide general purpose data on American family incomes and expenditures. The latter study, which involved five separate agencies and a sample of 300,000 families was designed to aid the National Resources Committee, a short-lived central planning agency, in analyzing national consumption. More significant, however, was the fact that this was a Works Progress Administration (WPA) project, and the purpose was to employ as many people as possible in socially useful projects. It is improbable that such a massive undertaking would have been made for research purposes alone. (41)

Once again a major Federal budget study grew as an afterthought out of expenditure surveys done for other reasons. The WPA wanted a basis on which to set pay scales for its vast numbers of new employees. The BLS health and decency budget was not only 16 years out of date in a period of rapid social and technological change, but it also represented a level of living unnecessarily high for emergency work. Moreover, if the WPA was to pay salaries that provided only marginal living levels, it would have to take into account local cost-of-living differences.

Therefore, the WPA used the data from the surveys to construct its own "emergency" and "maintenance" level budgets, both to help determine absolute need levels and to compare the cost of a given standard in different cities. Although the documentation on the design of the budgets is limited, (42) the WPA appears to have approached the problem

much as did their predecessors. They chose quantity and quality standards through a combination of actual consumption patterns, expert opinions, scientific standards and their own judgment. The WPA said the maintenance budget represented "average minimum needs for industrial, service and other manual workers." It was intended to give consideration to psychological as well as physical needs.

In fact, however, even if one takes into account that the representative family was now four instead of five, the cost of the budget in 1935 dollars was not much more than the cost of the 1919 health and decency budget in 1919 dollars. The level of living being measured was distinctly lower, as were standards generally. The emergency budget allowed "more exclusively, though not entirely, for material wants, but it might be questioned on the grounds of health hazards if families had to live at this level for a considerable period of time." (43) The WPA priced these two budgets in 59 cities, and figures were published widely. Once the war began and the WPA was dissolved, the BLS continued pricing the budgets.

The City Worker Family Budget: The Routinization of Budget Design

Controversies during World War II over the cost of living and wage regulation (44) called attention to the inadequacies of the WPA budgets for use in that period. Their levels were too low for a prosperous period. Moreover, wartime conditions radically changed life styles and the array and relative prices of available goods. The WPA budgets were obviously no longer pertinent by the time the War ended, and the BLS

recognizing this, had stopped pricing them. However, the demand for standard budgets remained from organized labor, business, and public and private agencies. They continued to use the WPA budgets for a wide variety of purposes in spite of the injustices their use might cause.

Therefore, when Congressman Engel rose on the floor of the House and denounced the WPA budgets and demanded new ones based on postwar values, (45) his ideas were accepted. The immediate reason for his speech was that Congress was considering income tax reform and elimination of high war taxes. They wanted to set tax deductions on a basis of both equity and need. To do so a measure of the money cost of living and the comparative costs for different family sizes would be desirable. The Appropriations Committee, led by Engel, then prodded a none-too-enthusiastic Labor Statistics Commissioner to provide a statement on how the BLS would design new standard budgets. (46) Commissioner Hinrichs had come to the Committee with the request for funds to extend the cost of living index to more cities, but the Committee was more interested in budgets. Their principal concern seemed to be that the budgets were inappropriately used in wage disputes. The Commissioner protested that the Bureau had never endorsed the budgets as representing appropriate living levels, and had always issued caveats with the figures. But the Congressmen were unimpressed by this argument, pointing out that so long as the data were easy to misuse, they would be. In other words, they wanted the data in spite

of the pitfalls, which they recognized, but they wanted it to be designed to prevent misuse or misunderstanding.

Congress allocated the Bureau a sum to do new standard budgets in 1946. The money allocated, however, would only cover the new budget design, and not the vast investment required for new expenditure surveys. In any case, Congress felt that with pent-up wartime demand beginning to emerge, expenditure patterns would be difficult to interpret or generalize from. Once again a national standard budget was demanded by Congress as a sort of side issue in a larger problem, here tax reform, and it only authorized minimal expenditure.

The Bureau, in its tradition of avoiding heavily value-laden or politically charged statistical activity, had not done a budget since 1920. To protect itself and to get the expertise it lacked on its own staff, the BLS appointed a Technical Advisory Committee. This Committee was to establish the methods and procedures as well as set the standard and to advise the Bureau in carrying out the budget design process. Experienced budget designers from the Heller Committee, the Department of Agriculture, unions and universities, representing a range of political views, all were in the group. With their advice the Bureau designed a budget in a new way. The Committee established techniques and procedures, which, while they were not free of value judgments, were objective in the sense that they could be explained and reproduced by others. Moreover, the standard selected was for the first time one that was felt to be applicable to the urban population as

a whole, rather than just the working class. No longer was it assumed that different classes aspired to different levels of living but rather that there was a commonly shared American standard. This City Workers Family Budget (CWFB) was called a "modest but adequate" level and intended to "satisfy prevailing standards of what is necessary for health, efficiency, the future of children and for participation in community activities." (47) It represented a level of living higher than the WPA budgets and even the 1919 "health and decency budget." It included such things as a washing machine, a vacuum cleaner and a car in many cases as well as more clothing, medical aid, and recreation.

The data on consumption patterns for the budget, however, came primarily from the Depression years and the large consumption studies, updated by estimation for categories of consumption that seemed to have changed radically. The Bureau, after repricing for several years the budget it brought out in 1947, discontinued it. Without weights based on new consumption patterns, the BLS felt it was subject to the same criticism as the WPA budgets had been in the early 40's.

By 1950 we were in the prosperous times of the Korean War, and there was little effort to reinstate the budgets until the recession toward the end of the 50's. At that time data had become available from the expenditure survey done in 1950-51 to get new weights for the renamed Consumer Price Index. Comparatively little marginal effort would be required to bring the City Worker's Family Budget (CWFB) up-to-

date. Again the incentive for the move came from Congress, and the authorization for the project came via the Appropriations Committee. The Bureau had had little intention of continuing the budget series so, in 1959, when they began work on the revised budget, only one staff member who had worked on the 1946 version remained. The Bureau had done no further research on methods or any aspect of budgets had been done in the Bureau since then. The Bureau called its 1959 budget an "interim" revision. (48) They would require considerably more time to develop techniques for including the cost of owned housing, for example, on an annual basis. The new expenditure studies showed that home owning had become very common by then.

Other Budgets

In the 40's and 50's more and more special purpose state and local budgets appeared. Most states had minimum wage laws whose purpose was to assure that women would be paid enough to live a moral, healthy existence. (49) Many of the laws appear to have been originally conceived of as a way of preventing prostitution. The Federal government has never provided budgets for a single, working woman, and therefore many states have collected budgetary data on this topic. States have also had to produce some kind of budgets for setting relief standards in welfare programs. Budgets were important in these since they would not only indicate the relief level but also justify the need for various special grants. The Bureau never collected budgetary data for dependent families and the "modest but adequate" budget level

was higher than desired welfare payments. Thus the states and cities designed subsistence standards, though of course, without the large professional bureaucracy of the BLS.

Voluntary agencies also got into the budget-making process, because they viewed measures of income adequacy as critical to their activity. They wanted not only to establish income limits for free services but also to set up a payment scale based on need. Therefore they wanted to measure several absolute levels of income adequacy for a particular family size and to compare the levels of living possible with a given income for families of different sizes in order to set payments that could fluctuate with income and family size. These agencies, like the states, operate within a specific geographic area, so average national figures on budget costs are not precise enough. Such agencies or federations of agencies composed local budgets in various ways, (50) but often they used BLS figures and methods, making local alterations. These are some of the most carefully done and best documented of budgets.

Standard Budgets Become Part of the BLS Program

In the 1960's the standard budget indicator entered what may be an important phase. For the first time in their history, a Federal agency accepted the responsibility to design, reprice, and redesign standard budgets on a permanent basis. Until then budgets had always been ordered to deal with some very specific problem and then discontinued. Accordingly, there never developed the kind of bureaucratic and

Congressional constituency and expertise that would be concomitant with a continuing program. Events of the sixties, however, suddenly made budgets more visible and raised the possibility that they would become as permanent and influential as unemployment figures.

For the first time, in 1965, the BLS itself requested permission to design a new budget, this one to replace the 1959 interim one. Their initiative grew out of a perception of a need for income criterion to carry out public and private social programs which had been so rapidly expanding since the late fifties. The Bureau had called together once again in 1963 a Technical Advisory Committee to assist the Bureau, this time in evaluating the need for new budgets and changes in old ones. Not surprisingly, they provided the motivation and justification for more budget studies. The Committee's report (51) served, as expert reports had on many occasions in the past, as an important exhibit in BLS arguments to the House Appropriations Committee for the budget. It lent a certain air of impartiality to their requests, though it was highly supportive of a budget program, as most of the experts on the committee were, of course, budget users.

The Committee recommended not only revision of the moderate level CWFB, but more importantly, the development of a lower level budget and budgets for elderly couples as well. (52) These recommendations approximately coincided with the inception of the Poverty Program and a growing demand for identifying and measuring poverty and progress against it. The Bureau and its Commissioner, Ewan Clague, saw an

opportunity for the Bureau to play an important role. He went to Congress in 1965 requesting funds to develop both lower and moderate level budgets. Though Congress did not allow the lower level budgets that year, by 1966 it had become plain that the crude poverty index offered by the Administration was unsatisfactory (see p. 330 for a fuller story of the poverty index.)

Accordingly, Congress authorized the BLS to develop, reprice and revise three levels of budgets for two family types on a continuing basis. They saw a need for them in their evaluation of proposed and existing Federal programs. The third standard budget was higher than the moderate level. Labor unions feared that the introduction of the lower budget would jeopardize their use of the moderate level as a reference point in wage negotiations, and therefore opposed introduction of a lower budget without balancing it with a higher one. There were certainly uses for such a budget, though perhaps not compelling enough ones to get it started on its own. Public and private agencies would use them administratively, and business would use them to provide geographical wage differentials that would give equivalent real incomes.

These budgets, originally published in 1969 and 1970, (53) have been repriced with the aid of the Consumer Price Index in 1970 and 1971, and it is these that are now in jeopardy. Their uses (see p. 338) have made them controversial and the Bureau's "permanent" commitment may be cut off under an unsympathetic, macroeconomist Commissioner, Geoffrey Moore. The redesign of the budgets on the basis

of the new data from the 1972-72 Consumption Survey will not be done if the Nixon Administration has its way. The reasons it may have its way, and halt the institutionalization of this indicator have to do with the highly political nature of the issues to which it pertains, the fact that it still lacks organized support and its own nature, value-laden and ambiguous.

CHAPTER IV

CONCEPTS AND METHODS

The Budget Concept: An Ambiguous Norm

Standard budgets are designed to represent the consumption requirements for a family of specified size and type to meet a particular standard of living. As such, they have two features which distinguish them as indicators sharply from unemployment rates. The first is that budgets attempt to measure something far more abstract and subjective than unemployment - a set of consumption objectives. The objectives are not those of any individual, but those society has for itself or groups within it. Secondly, the budgets involve their designers in the selection of a level for the indicator rather than simply the design of a scale, like the unemployment rate, on which to place observations.

The important consequences of these distinctions are several. To measure unemployment we can set up a simple criterion and inquire directly as to whether individuals are unemployed. But as we cannot ask society about its objectives, we must devise more indirect inquiry techniques whose validity and reliability are far more dubious. But the elaborate measurement models necessary to use such techniques in a credible way have not been developed, so inevitably the methods have been unsatisfactory to many.

One reason that the standard of living is difficult to measure is that it is difficult to define in specific or unambiguous terms. A typical example of a definition of what a standard budget measures is the

following which pertains to one of the most reputable and long-lasting budget series in this country.

"...an attempt to measure the cost of maintaining the commonly accepted standard of living... by the 'commonly accepted standard of living' is meant the sum of those goods and services that public opinion currently recognizes as necessary to healthful and reasonably comfortable living."(54) (underscoring mine). Not only does this definition do little more to specify the living level than to exclude the luxurious and the deprived, it leaves many fuzzy areas which are subject to wide variations in individual interpretation.

Even the basic outlines of a budget do not follow from such a definition and, as a consequence, the methods and judgments used in constructing it become its definition by default. As the model to guide choice of these methods is so sketchy, the standard budget is an instance of a highly operationally defined measure (see p. 30). The result has been that the budgets mix and obscure different kinds of objectives and models. The measure is therefore complex and, ultimately, ambiguous. This factor in combination with the fact that the budget itself is a level and thus contains direct normative political implications has been a serious obstacle to the indicator's development and use. It is difficult to use in theoretical analysis or research when its precise meaning cannot be summed up unambiguously - when the variable it represents is not defined. Moreover, since a budget is the product of so many judgments, in the political arena, its use is highly suspect, and accordingly, it may serve little function.

Income Adequacy: Concepts and Measures

The purpose of a standard budget is to provide a standard against which to assess income adequacy. The norm it attempts to measure is one we presume to exist in the consciousness or attitudes of society as a whole. But other possible ways of setting and measuring standards for income adequacy do exist. They involve different definitions as well as different measurement methods from the standard budget. To examine them helps shed light on the ambiguities in the budgets since a great part of them is due to the fact that the various kinds of distinct criteria of income adequacy are obscured in budget design. Looking at the various alternatives also provides a backdrop against which to understand reasons that the standard budget became popular and the reasons for the objections to it.

Physical Efficiency Criterion. One simple criterion for an income adequacy standard is the maintenance of physical efficiency. The goal could be defined in fairly objective terms involving good health and maximum capacity for activity. Both are comparatively susceptible to measurement, and both are ones on which there would be general agreement. The requisites for this standard could be determined in a basically "scientific" fashion. That is, after defining health, one could set up standardized tests to find out what the requirements are to maintain health. Though one would have to use some kind of average to gloss over individual differences in setting standard quantities, the relation between the budget items and goals would be unambiguous. Such a budget would

probably contain nothing more than food to supply the cheapest available nutrition, clothing and fuel to maintain warmth and keep one dry and clean, and housing with sufficient sanitary facilities to protect against disease.

This subsistence level of living has not been measured in this country for the purpose of budget design, though in the nineteenth century Rowntree and other social reformers tried to measure it. It is interesting that we do not measure such a level since, judging by payment levels, such programs as Social Security seem to have implicit in them a subsistence criterion. Standard budgets, however, usually do contain some elements of such a physical subsistence standard, in the choice of food items for example. Usually when budget designers speak of "scientific" criteria in budget design, they are referring to items included because they are supposed to maintain physical efficiency.

Consumption Criteria. Another approach to setting norms for income levels is to use actual consumption patterns. This approach involves a certain circularity; however, in that it means incorporating and accepting many aspects of the social or economic situation into a standard - aspects which may be undesirable. For example, the distribution of income, or the supply and relative prices of various goods may be far from ideal, but a standard based on actual consumption would enshrine these patterns and incorporate them into goals.

Although the consumption-based approach draws on behavior patterns, it necessarily also involves an element of designer judgment, some behavioral

or normative model, or, at least, an arbitrary decision on how to use consumption data. The simplest approach is to use the median or average expenditure level as the representation of a moderate standard of living. A good many social scientists have suggested taking an income equal to half of the median as a poverty criterion. Neither idea has been widely accepted, but both types of income lines do appear in policy analyses from time to time. In some sense they are arbitrary, but, in another, the simplicity of the choice makes their implications clear. Moreover, it represents a reasonable and distinct definition of income adequacy to say it is determined by one's relative economic position. This represents of course an entirely different dimension of income adequacy than does the absolute level defined by physical efficiency.

Another consumption-based standard dates back to the nineteenth century expenditure surveys, and it depends on a behavioral model. The so-called "breakeven" criterion involves selecting as an adequate income the level at which families of the specified size are just barely able to achieve some savings. At this point, it was assumed, families reach a consumption level that satisfies them, as evidenced by their saving. It was such a level that Carroll Wright referred to as an implicit income adequacy standard in his cost of living studies. The normative model involved in using such a standard is that savings are not a necessary part of an adequate living level. The circularity here, however, has discouraged the continued use of this standard. Different groups of people may have different time preferences, some abstaining from present con-

sumption to save for the future, and others the reverse. Moreover, various factors in the economy may be forcing saving, like the scarcity of housing after a war, for example. Finally, judging by most standard budgets, savings themselves are now considered essential to protect a family against hazards of the future. Savings are part of the standard of living.

The official federal poverty standard represents another approach to establishing an income adequacy criterion and it combines consumption and scientific elements. It has its roots in Engel's idea that the proportion of income spent in food measures welfare and is dependent on the assumption that the level of dietary satisfaction of a family is correlated with the degree of satisfaction of other consumption standards. The construction of the standard begins with the cost of an "economy" food plan devised by the Department of Agriculture to describe the minimum cost of diet that would be adequate for an emergency. An income of approximately three times the cost of this diet became the poverty standard.

The reasoning grew out of analysis of nationwide data on actual family diets, incomes, and expenditures. (55) The multiplier was chosen because the data from the 1955 Agriculture Department Household Food Consumption Survey showed that all families of two or more averaged an expenditure of one-third of total after-tax income on food. (56) (More detailed study gave slight variations in the multiplier by family size).

Many other possibilities exist for drawing standards out of consumption data. The income-elasticity of expenditure approach to selecting quantities of items for the BLS standard budgets (see p. 271) is another example. The Heller Committee includes an item in its budgets when 50% of the target population uses it. Thus the criterion emerges from a combination of actual behavior under the constraints of the world as it happens to be at the moment, and the budget designer's decision about how to manipulate the data, which may be guided either by no model or one of undetermined validity. Consumption-based criteria play a large role in standard budgets, sometimes directly and explicitly and other times in more hidden ways and blended with other criteria.

Judgmental Criteria. For any kind of income standard that does not purport to be solely for physical efficiency or to be purely relative to prevailing patterns, only judgments are available to set levels. Judgment, of course, enters into use of the first two criteria, but it is the only tool we have for designing a standard which approximates many kinds of goals, beyond simple physical efficiency.

In particular income standards used in the U.S. have virtually all attempted to represent the requirements for some kind of social efficiency. That is, they include provision for such things as self-respect, personal satisfaction, and participation in the community. What people actually are able to do, or choose to do, may or may not coincide with these goals. For example, people may not buy a newspaper regularly, though society's standard would say they should do so to participate as citizens. Once

we posit goals like self-respect for our income standard, we cannot stick with pure consumption criteria, but must add judgment to our methodology.

These judgments may be of a variety of types and qualities of course, but it is doubtful whether we could dignify any decision about how to make possible a socially acceptable level of personal satisfaction with the term "scientific." The concept is too individualized and too hard to measure for us to set up the necessary standard tests by which to measure relationships between consumption and the goals. The various kinds of judgments in the budgets have been first those of the designer of the income standard. These may be very personal and unrepresentative, and, in any case, often suspect since designers of standards often also use them in argument. Secondly, "experts" may be called in to design standards, usually for particular areas of consumption. Their judgment about what is adequate tends to be less personal and based on a wider experience with desires and community values. It may, of course, also be professionally self-serving.

Finally, one can simply ask for the judgments of the consumers themselves on what their standards are. The Gallup poll each year, for example, inquires of a sample of families of various incomes what income is required for a family of four to get along on a minimum income. Interestingly enough, the answers do seem to converge on a 1969 level, for example, of about \$5200. (57) They could also ask what was the cost of a moderate level or even what specific items were needed for a particular standard and thus create a new budget. The advantage of this approach is

it is a very direct way to inquire into society's standards, and it does not require skepticism about the philosophy and competence of the "experts." However, it does involve a major problem, perhaps insoluble, of designing questions about these subjective ideas in a way which will be clearly and similarly understood by all who are asked.

Design of a Standard Budget: An Example

An understanding of the design procedures for a standard budget is essential if we are to understand what it does and does not represent and many of the problems that arise in its use and interpretation. As we have said, the definition does not fully describe what the budget represents. The many complex decisions involved in its construction do not follow of necessity from the definitions. Each procedure involves certain assumptions that we may not recognize without close examination. Moreover, the decisions are made in several kinds of ways, using various kinds of criteria, "scientific" for physical efficiency, consumption-based for a relative standard, and judgmental for a number of other kinds of implicit or explicit objectives - at most, vaguely defined. The various objectives and criteria are well blended in the process and careful study is required to disentangle them. Finally, we need to look closely at the design process because the stated objective of the budget indicator may not be what it actually turns out to measure, particularly when the concept is as subjective as a standard of living.

The so-called "City Worker's Family Budget (CWFB) for a Moderate Living Standard," (58) provides an example which should clarify how a budget is put together. There have been a considerable number of budgets designed over the years, each with its own methods. However, the basic approach of all is similar. They all begin with selection of a family type and proceed with selection of budget items within approximately the same consumption categories. They all involve a mixture of individual, expert, "scientific" and consumption-based criteria. The design process is easiest to understand if we focus on a single budget. This section will examine the CWFB primarily because it is better documented than most and differs from most other budgets principally in that its designers made the decisions more carefully and explicitly. The "scientific" and expert standards they used were as widely accepted as any employed for budgets, and the data based on as reliable a sample as any. Problems with the reliability or uses of this budget will exist for other budgets as well. Finally, the CWFB (later the "Intermediate" level) has been the best known and most widely used of budgets in recent years.

The Concept and a Model for Measurement. The general concept that the BLS defines as the objective of the CWFB is that it represents a living standard providing for the "maintenance of health and social, the nurture of children, and participation in community activities. This is not a 'subsistence' budget, nor is it a luxury budget; it is an attempt to describe and measure a modest but adequate standard of living." (59)

A "standard of living", according to the BLS, refers to the "goals we set for ourselves as consumers of goods and services and as users of leisure time and to our norms for conditions of living. Standard budgets measure the total costs of maintaining the levels and manners of living represented by these goals." (60) This is perhaps the clearest statement of the purpose of a budget.

Having stated these goals, the BLS then provided the model by which they would attempt to measure their object:

"...In the actual experience of families there is a scale which ranks various consumption patterns in an ascending order from mere subsistence to plenitude in every respect... This consumption scale is established by society. It can be discovered only through observations of the expressions of society's ratings of the various existing levels of living. These ratings of the various levels of living are expressed in the judgments of scientists, such as medical and public health authorities; and secondly, in the behavior of individual consumers. Scientific judgments are based primarily on the studies of the relation between family consumption and individual and community health. The expressions of consumer judgment appear in the choices made by consumers as economic barriers are progressively removed." (61) The statement amounts to a descriptive model, though a sketchy one, of the nature of family preferences or utility for goods. It states first of all that there is a set of preferences common to the social group. It posits that this utility is ordered on a (presumably) linear scale and that it derives in some way from socially determined values.

Finally, the statement provides a model for relating observable data to this underlying preference set in saying that consumer behavior and scientific judgments reflect it. Unfortunately, the nature of this relationship is not spelled out, nor is the method of selecting a level for the standards. The statement provides only the most general framework for making the measurements. "Scientific" and consumer criteria may well be in conflict with each other and, in any case, even if we can agree that the two do reflect society's values, we still have no theory with which to draw the underlying values out of masses of data on consumption or the varying testimony of experts.

The BLS statement is the nearest the budget designers approach to a measurement model. Its sketchiness testifies to the empirical nature of the tradition from which the budgets emerged, and in which they are still steeped. The nineteenth century social scientists and statisticians who pioneered the expenditure surveys amassed vast quantities of detailed data on the minutiae of family expenditures. They did not justify the collection of any specific portion of the data in any specific terms, but rather felt its obvious meaning would emerge. (It is not clear it did emerge, because such expenditure data has been very little used). We can see the same absence of much prior model in the design of budgets and the same lack of concern for any tidy structure. It is replaced rather by reliance on intuition and the empiricist's confidence that the truth will emerge from the data.

Outline of the Basic Design. The first step in budget design is to select the type of family. Over the years it has almost always been a workingman's family of approximately average size. The CWFB is for a very specific urban family of four with an employed husband of 38, a housewife, a boy 13 and a girl 8. The next step is to locate or gather data on consumption behavior of this type of family. Many of the early twentieth century budget designers collected data on a small sample of households, perhaps as much as 800 or 900. The major Federal budgets, however, used data from the massive household consumption surveys conducted primarily to develop and revise cost of living indices. The CWFB employed data from several nationwide surveys on special topics as well.

A scientific criterion in this context is one thought by experiment, experience or perhaps simply "expert opinion" to permit calculation of essential levels of items required for physical efficiency.

The budget items are then selected according to whatever convenient criteria may be found. Most selection processes combine judgmental, consumer, and scientific criteria in their own ways, and differently for each category. The items are usually listed and described in great detail so they may be priced in retail outlets and so that users may inspect the content and make adjustments for special purposes, adding or eliminating items. The BLS has designed and published individual budgets for most major cities and many smaller ones. The content of

the various city budgets differ primarily in housing, clothing, food and transportation and takes into account climatic differences, differentials in quality of public transportation, regional preferences for foods, and the differences in types of available housing. Thus it would not make much sense to promulgate a national standard for say, multiple-unit housing and apply it to a major city such as Los Angeles which contains virtually no such housing, even for the poor. Moreover, if common national food standards were used, they would be far more expensive in some areas than others. The budgets for various cities differ, not only in content but also in prices since the BLS prices them locally.

BLS budgets are the only ones ambitious enough to apply to many cities. Most other budgets have either involved a very approximate national standard or, most often, applied simply to one or a few local areas. This narrow applicability of most budgets to a very limited area has unquestionably been a factor in the growth and development of the budget as a social indicator. Until the BLS developed its standard budgets for many cities, no budgets had a really national audience or user group.

Equivalence Scales. Finally, the BLS has provided equivalence scales for the CWFB.(62) An equivalence scale is a table which provides the factors by which to multiply the cost of the standard four-person family budget in order to get the cost of a presumably equivalent living level for other family types. The Heller Committee devised quite different budgets for different family sizes, but the BLS uses a short-cut solution to estimate these costs. An equivalence scale

is an old concept dating back to the nineteenth century surveys and the scales for equivalent nutritional levels for different ages and sexes. Each family member was assigned, for example, an Adult Male Equivalent number, indicating what percentage of an adult male's nutritional needs he or she required. In any case, the equivalence scale, developed principally by the BLS for its budgets were very important in that they multiplied many times the possible uses of the budgets. The scales made it possible to apply the income adequacy standard of the budgets to many family types. Accordingly, administrators in public and private agencies could use budgets almost exclusively for setting eligibility and benefit levels. The scales gave them a way of comparing welfare of families of different sizes and incomes, and they used them also to set sliding fee scales. Thus the equivalence scales have had a very direct and large financial impact on millions of families. It is therefore important to be aware of the assumptions and methods with which they were designed.

BLS derivation of these scales was much influenced by Engel's basic contention that "The proportion of the outgo used for food, other things being equal, is the best measure of the national standard of living of a population."(p.214) In fact this idea seems to permeate thought about consumption behavior as it reappears in many contexts and forms. In any case the assumption that families spending equal proportions of after-tax income on food have attained equivalent levels of total consumption underlies the BLS equivalence scale. The proposition,

however, is not unassailable since it is far easier and relatively cheaper to get an adequate diet than to get housing that meets public standards. In fact the latter may not even be accessible to many families who spend quite a small proportion of their income on food. This kind of mismatch of assumption and reality is common when we simply accept ideas like Engel's that may have originated out of a very different reality. In the nineteenth century, housing took a relatively much larger percentage of a poor man's budget and food a much smaller one than today.

The index numbers in the scale were derived on the basis of data from the 1960-61 Survey of Consumer Expenditures and a formula relating average food expenditure for the family type, their average money income, a measure of the usual relation of food expenditures to income for the family type and the income elasticity of food expenditures. (63)

While it would be tedious to analyze all the technical questions in this formulation in the present context, we should note that it is basically a statistical smoothing process. As such there are some groups for whom at the extremities of the distribution the scale is probably quite far off. The BLS notes, for example, that the figure used for elasticity of food expenditures with respect to income (1/2) was furthest off for the highest income classes and one-person families. Moreover, the user of these scales as a way of comparing utility for money between family types must not only ignore individual differences, but also accept that Engelian "law" that says food expenditures have an essentially firm, predictable relationship

to other necessary ones.

Selection of Budget Quantities: The "Scientific" Approach. For several consumption categories, budget designers usually use what they would term a "scientific" approach, larded with heavy doses of judgment, usually by professionals, to select budget items. That is, they felt there was a need in some physical sense and that there is some absolute way of defining how to fill it. The reasoning may or may not be scientific in the sense that it depends on well-established evidence; on the contrary, there may be a lot of guesswork involved. But the underlying principle remains that for certain consumption items there is a desirable level that may be determined on a priori grounds by evidence apart from actual preferences. Of course even these items in most budgets and in our example of the CWFB, are not limited to the physical efficiency level, but provide considerably more. The excess is usually the result of some implicit or explicit consumer-based criterion.

The nutrient standards in the CWFB are the official ones promulgated by the Food and Nutrition Board of the National Research Council. Department of Agriculture home economists have translated these standards into specific food plans at several different cost levels. The BLS chose for this budget their moderate cost plan, and modified it by data from the nationwide USDA Household Food Consumption Survey. They selected out of this food plan the items actually used in various regions by families in the income class containing the median income. (64)

They also devised weights for the food items on the basis of the same consumption patterns.

The result of this process is a hybrid sort of a standard. It is not a minimum cost or most effective way of achieving good nutrition. If nutrition were the only value involved, the diet would probably be 50% soybeans. So meeting the scientific standards is only part of the criterion. The modifications made for consumer preferences still do not make the food plan realistic. Families with even the moderate budget level income do not all eat nutritionally adequate diets - much less the same diets prescribed by home economists. It is not even clear that they could, if they wanted to, calculate out the requirements the way a home economist does. The result is probably a measure of a socially defined norm, though not one actually practiced.

The idea that food needs may be determined scientifically goes back in great part to the efforts of W. O. Atwater. The caloric standards he devised for various kinds of people have not much changed since his analyses in the last 25 years of the nineteenth century. Wright and others used them to evaluate the adequacy of diets and budget designers like Chapin in his 1907 Budget for New York incorporated the cost of meeting these needs routinely into budgets. While today we know about vitamins and the need for balance in diets, the principles for food selection are not very different. The BLS mill-worker's budget, for example, contained adequate nutrition as expressed by a local prison diet, and modified for non-prison customs.

For instance, the BLS added meat for dinner to the diet because local workmen would normally have it. Thus they used a professionally designed diet, which they checked for the general nutritional standard and modified for actual preferences.

The housing standard too is a similar blend of absolute, judgmental and consumer standards. The "scientific" element is provided by "official" standards of public groups, the American Public Health Association and the U.S. Public Housing Administration. It called for, among other things, an unfurnished five-room unit, in sound condition with a private bath, hot and cold water, access to public transportation, stores, and play-space for children, in a hazard-free residential area. The price was determined by getting the average rent for the middle third of the distribution of rents for actual housing fitting these requirements in the area. In many cases this procedure may produce an unrealistic result in the sense that "standard" housing may be such a small percentage of total housing that it does not represent usual or even common practice. Since the standard represents a norm, or consumption goal, rather than a practice, the unreality may not be an issue. The food standard was not realistic either, in that it did not represent real practice, but was a combination of ideal and actual, like the housing standard.

The process for designing the standard is very complex. Before the 1950's, the standard was less difficult to design since it was simply the rent for housing fitting the requirements. But after the

War, such a large percentage of families owned their own homes that BLS analysts felt a budget which did not account for this was too unrealistic. In other words, they were applying consumption-based criteria at this point. In 1959 the major obstacle to making what they would call a complete revision of the CWFB rather than the "Interim" version they did make, was this problem of defining home owner standards. Ultimately the standard represented a typical, perhaps, but nonetheless somewhat arbitrarily chosen situation. The assumption was that the family had purchased a home seven years previously and had a 15-year mortgage, representing 75% of the purchase price. The final housing cost given in the budget was a weighted average of homeowner and renter costs based on actual percentages of each in the population of budget-type families. Once again the result was a standard at most based on a small subgroup of the population and ultimately unlike the practice or ideal of any one. Nor is the result an average or some familiar way of summing up a distribution. Rather the standard combines selectivity, averaging and arbitrariness.

Selection of Budget Quantities: Consumption-Based Approach. For consumption categories where absolute standards are not readily imaginable, most budgets used some kind of criterion derived from actual behavior of the appropriate group, as usual combined with elements of judgment and the arbitrary. Until the original CWFB in 1946, a method was not standardized. Rather budgets used a wide variety of ad hoc methods. However, at that time Dorothy Brady

developed a way of routinely analyzing consumption data to determine quantities (65) The method was used in about one-third of the items in the 1966 CWFB, including such categories as clothing, house-furnishings, reading, recreation and meals away from home.

The procedure involved the examination of expenditures in various categories by families of the range of income groups. Like Engel's laws it depended on successive comparisons of proportions of income spent for various categories of items and on the idea that these proportions provided indices of how well family needs were being fulfilled. The data Ms. Brady analyzed from the 1934-36 expenditure surveys showed that families of the budget type tended to buy larger quantities of items in a consumption category as their income was higher. The quantities increased first at an increasing, then at a decreasing rate of change relative to income. She then took the elasticity of expenditures with respect to income in this relationship and plotted them against income. The BLS took as the budget quantity the number of items purchased by those with incomes corresponding to the point of maximum elasticity on this bell-shaped income-elasticity curve.

This way of manipulating the data is largely for the convenience of the mathematical formulation which permits a consistent way of choosing a point. It does not fit into any larger theory or mathematical model. In fact, it is only the flimsiest of models itself. That is, the point of maximum elasticity does represent, at

least in some sense, a point where the intensity of demand for a class of consumption is declining. It represent this in the terms that Engel posed in that this elasticity is a measure of the propensity to spend an increasing proportion of total income on a particular consumption group as income increases. The point chosen is where this proportion just starts to decline.

It should be noted that the use of the method, even to produce this limited conclusion, depends on several other assumptions. First, the consumption categories must be meaningful groups between which people do not make important tradeoffs. Secondly, all income groups must be operating by common consumption aspirations since the data comes from the whole income distribution. Thirdly, the popular norm must consist in first reaching some target quantity of goods before using additional income to upgrade the quality. Finally, it assumes a common hierarchy of needs such that a family will satisfy one before it begins on the next in earnest. Thus all families will satisfy food needs first, probably shelter and fuel second, and clothing third, and so on for other consumption categories.

The BLS has been able to check partially these assumptions and they are not completely satisfactory. The marginal problems with the consumption categories are not trivial, particularly for the many items which serve double functions, such as, for example, sports clothes, which serve as clothing and recreation. It is unclear that division by function provides an unambiguous role in modern complex

society, though it may well have done so in the near-subsistence economy of the turn of the century industrial worker. The common consumption standard idea seemed correct because there were no important breaks in trend of consumption patterns in relation to income, nor major differences due to other factors than locality. However, information on the nature of goods purchased was not detailed enough to prove there was no difference in, say, type of clothes or books purchased. Thus the assumption about increasing quantity before quality was not well established. As for the hierarchy of needs, this clearly goes back to the pervasive hypotheses of Engel, but again the data does not clearly establish such a hierarchy. It seems likely, however, that families would fill needs not only in relation to some internal hierarchy but also to the array of costs confronting them and to the way they maximize their own benefit for the least cost.

Summary of Design Issues

This glimpse into the design process of the BLS moderate level standard budget should help clarify the nature of the complexity and ambiguity in the indicator. This should illustrate what it means to say it is put together using a closely interlocked combination of criteria and objectives. In the final indicator the ideal is blended with the actual, relative standards with absolute, scientific criteria with consumers' preferences, and pragmatic or arbitrary choices with self-serving professional standards.

The goals of the indicator are the measurement of needs for health, social participation, nurture of children and other such broad concepts. They have no universally understood or precise meaning, and the budget designers present only the most meager of models relating the goals to measurable phenomena. Therefore the theory behind the budget is obscure and vague, if indeed it can be called a theory. The result of the way the budget is designed is that it is difficult to interpret and use appropriately. Certainly the conceptual problems raised by its design have been a principle obstacle to the acceptance, wide utilization, and even institutionalization of the standard budgets. It is not clear whether any general income adequacy criterion could have been widely acceptable. The topic is a controversial one on which there are many opinions and possible criteria for index design such as absolute need on relative status. The reason the standard budgets have become as popular as they have may be the same as the reasons they have never been fully successful - because they both obscure and partially account for the controversial factors.

Values Implicit in Budgets

All the standard budgets over the years, including the CWFB, incorporate in them values and perceptions of society in ways that are obvious, like the choice of budget items and others that are more subtle. Some of these ingredients have been introduced by default or the need to make some decision, however arbitrary. These often hidden elements can make of the indicator something unpredictable, politically charged

and controversial and can impede its wide use. An indicator requires a common acceptance among users if it is to facilitate rather than impede discussion. In fact it needs acceptance in quite a few different views for almost any public purpose. The more value judgments an indicator contains and the less consensus on them, the less likely it is to be used. The standard budget has a relatively large value component which has been an obstacle to its use.

The unemployment indicator also contained value judgments, but they were fewer, more explicit and most represent a clearer political consensus. Both indicators suffer, however, from the fact that certain values and models were incorporated into the original measure which have not changed over time, but rather have become increasingly unsuited to current views of problems. Although many aspects of both measures changed with the times, the changes tend to lag behind perceptions and the basic framework of the indicator tends to have a kind of permanence, though perhaps it should not.

The value elements enter not only, as we have described, in the selection of budget items and the design of equivalence scales, but also in a number of other ways. Notably, all the budgets have been influenced by the design and structure of the expenditure surveys and the values or conceptions implicit in them. They have also been affected by the changing society and values around them over the years. They tend to reflect the times in which they were created.

Expenditure Surveys Set Patterns. The questions, categories and ways of tabulating information in expenditure surveys have shaped and limited budget design. This is true for virtually all budgets, not just BLS budgets like the CWFB. Even those which use little expenditure data or designed their own special surveys were influenced by the patterns established in the nineteenth century expenditure surveys. The empiricist designers of these surveys made decisions about how to categorize and present information and on what to focus attention. These have persisted throughout the years for analysts of family budgets. The consumption categories devised almost a hundred years ago provide the cornerstone to budget design today, though it is not clear they are the most appropriate ones.

The most significant element of the budget that dates from these early days is the choice of family type. This was to be a source of considerable controversy throughout the years in its use for wage setting. Today the BLS has recognized the budget for the single family group as inadequate. The budget type family until the 1960's has predominantly been that of a blue-collar, or low-salary urban worker with a family of approximately average size. The family was not average, nor necessarily even the model family and it usually represented perhaps twenty percent of the population and the group was even smaller if you include the limitation that for most budgets the children were under working age. In any case the budget family was

not the elderly couple, the extended or large family, the young couple, single woman, or female-headed family, all of whom are more likely to have financial problems than the chosen "standard" family. Though over the years many states designed budgets for single women to "protect morals," budgets for the other groups in general had to await the expansion of social programs in the 60's.

It must be remembered that the early expenditure surveys were motivated by a desire to evaluate wages. The controversy over the justice of tariffs in the 1880's was concerned with how well the typical industrial workman's family could get along on the usual wages. Therefore data on the families with children, neither too few nor too many, and income neither too high nor too low, were singled out for special analysis. By implication the cost of living for this family type was the fair wage. The items and weights for the cost of living index from its inception as a food index after the 1901 survey have always been based on the working-class family consumption patterns. It is this group that the Congress explicitly decided to be concerned with - and this group as well that interested most of the early budget designers. In any case the habit of mind to think of the "normal" family was established in the nineteenth century. Moreover the data available for use in budget design was largely that based on such families.

More was involved in the focus on the "normal" family than just a decision on who was the high priority group. It also implied that it was desirable that a father should be able to support a whole family. Certainly such studies as the BLS did on mill-worker budgets (66) explicitly indicated that it was harmful for children to work and not be able to attend school, and for mothers to be unable to attend to children. The early budgets did not allow for costs of employment for other than one breadwinner. Moreover, it was clear that the goal of most budget uses was and has been over the years to promote the solid, so-called "average" American family. There were other families with problems, but public policy and even private concerns until quite recently focussed on the workingman and his family.

The nature of the budget family was to change slightly over the years as the result of demographic changes and an altered model of the origin of living standards. As the number of children in the average family declined over the years so did the size of the budget family. It went from as many as four or five children in the earliest budgets to three children in the BLS 1919 Health and Decency Budget and two in the Depression and subsequent budgets.

Secondly the massive expenditure surveys of the Depression, for the first time covering the total population rather than just the working class, shattered a basic assumption on which budgets had been founded - that the standards of the working class were different from those of other population groups - that they aspired to quite different

life styles. In fact in the description of the 1909 mill-workers budgets, the BLS indicated they would assume "fair" budgets for workers would not be fair to executives. Moreover, the BLS devised different budgets for different ethnic groups! Analysis of the Depression surveys, not done until the design of the CWFB in 1946, revealed that there were no major discontinuities in consumer preferences related to social factors - at least not within the broad categories on which consumption information was obtained. The principle determinants of consumption patterns were taken to be income, climate and region.

Budget Content: A Reflection of Social Structure and Values. The content of prevailing budgets is the most obvious way in which values and models of society entered into the budgets (67) The level and content of the various budgets evolved over the years to reflect changing societal values and changing structure of the economy and society. The English budgets of Rowntree and others were close to mere subsistence level, reflecting as they did a concern for social reforms to alleviate poverty. The early American budgets in the first 15 or 20 years of this century were considerably more generous but still less than average in terms of contemporary standards. Then during the First World War, as industrial conditions improved and union became stronger, a new level "comfort" budget was more often designed. It was this more generous budget that the BLS designed for setting civil service salaries in 1919. The trend reflected improved living conditions as well as the fact that policy was focussed

on the average person rather than the underprivileged. The decline in budget content in the WPA budgets reflected the straitened conditions of most of the population at the time and the emergency quality of relief measures. The higher level CWFB reflected the improved conditions during the War and the feeling that all should share in prosperity. Finally the diverse budgets of the 60's reflected the new concerns for underprivileged groups.

Mingled with the influence of changes in the level of living society considers desirable are changes in the way society is organized. It is virtually impossible to disentangle changes upgrading the standard from changes necessitated by conditions. Turn-of-the-century budgets contained little or no allowance for transportation for example. But as cities grew, public transportation became not only available, but an essential for getting to work. In 1970, a car is essential for many even in the lowest income categories because of changing residential and industrial location patterns as well as changing relative prices of cars. Fresh fruit and vegetables, a luxury in the early twentieth century are necessities in all modern budgets as transportation improvements make them easier and relatively cheaper. Heavy indoor clothing has become unnecessary with the advent of central heat, but a greater variety and better quality becomes necessary as workers move to white-collar jobs and feasible with the advent of synthetic fibers and modern marketing techniques.

The shortening work week suddenly makes leisure time an expense as well as an opportunity so that recreation has taken an increasing proportion of the budget in recent years. In short, changing technology, relative prices, geographical patterns and dominant life and work styles, make different consumption choices over time not only the desirable ones but often the only rational ones.

Then too, the categories of consumption so fundamental to the design of budgets since all analysis is done within them, represent a subtle way in which models and values creep into the budget. The number of categories increased as life grew more complicated, but the original ones remain along with the principle of dividing consumption instead of studying it as a whole, and dividing it by function. The categories were established by empiricists who applied no model and had little concept of their future uses. They were primarily concerned with recording the data in a comprehensive way. Yet these categories have persisted though a quite different set of categories might well suit today's purposes better. For example to group all things worn as clothing and all travel as undifferentiated transportation may not be as meaningful as differentiating work and leisure expenses.

The Final Product: A Standard Budget

The indicator which results from this combination of concepts and methods is a norm for adequate incomes which, virtually by definition, will define a goal of public action if it were used and accepted.

The concepts and methods involved in its design, and the fact that it is inherently normative, have proved a considerable obstacle to its use and acceptance, as the next section will suggest.

The vaguely defined concept a budget is intended to represent and the sketchiness of the model for its measurement leave large areas of its design open to individual judgment and guesswork or simply arbitrary decisions. Most budgets are supposed to measure socially defined norms for what families should be able to have. As we can only inquire about the norms indirectly with our sketchy model, and as we have no other measure than the budget against which to validate the result, it is difficult to establish general confidence in the indicator. Moreover, there is no general consensus on the precise specification of the making of the concept which might guide the experts or provide confidence in the result. In fact, unlike unemployment, the idea is not in common parlance at all.

Largely because of their basic vagueness, standard budgets contain particularly large elements of value judgment and some important but not well founded, assumptions about behavior, public values, and the nature of social standards. Moreover, with the large judgmental element and ad hoc methods applied in different ways to

each element of the budget it, not surprisingly, turns out that several views or dimensions of income adequacy are collapsed into the measure so they cannot be disentangled. So it is too with measurement criteria, which are so thoroughly mixed that it is difficult to evaluate any single budget element on the basis of the method employed.

Standard budgets, then, are hybrid measures, difficult to understand, in which the objective and subjective are mingled, in which actual standards are combined with ideal and absolute with relative ones. They are highly specific in applicability to time, place, and type of family and yet no budget applies to any particular family. A budget is not an average nor a guideline to "good" consumption. Rather, it partakes of all these elements to some imperfectly specified degree. Because the indicator is a directly normative level rather than a scale like unemployment, these conceptual ambiguities and value judgments presents tremendous obstacles to its wide use.

CHAPTER V

USES AND NONUSES: LONGEVITY WITHOUT ACCEPTANCE

From the first standard budget in 1901 down to the present, countless agencies and groups have used budgets in a wide variety of ways. Nonetheless, the indicator itself has never been accepted the way the unemployment rate has, with little doubt about its methods, assumptions or the appropriateness of the basic concept. On the contrary, when a person or group uses a budget as evidence in an argument or applies it to some situation, someone else frequently objects. The latter frequently does not understand it, trust its hidden value judgments or accepts its assumptions as appropriate to the use.

There has been a clear, steady demand over the years for a measure of income adequacy, and budgets have usually been the only measure introduced to fill the gap. Sometimes the criterion they provide has been the basis of action, but frequently other income criteria come into play and sometimes income adequacy as a goal altogether disappears. Sometimes the indicator itself is the focus of controversy, as its acceptance may define the type or level of action. Certainly its use may decide the crucial issue of distribution and level of benefits - who gets how much.

The specificity of the budgets, their complexity and the difficulty of understanding them was to give them a quite different set of uses and users than the unemployment data. National aggregate figures like

unemployment are relatively easy to apply and understand. Moreover, the same data can be pertinent to a nationwide audience of the general public as well as to many specialists. The budgets, however, are difficult to apply or interpret in particular situations, and most have had limited applicability in any case to a few family situations and specific localities. Accordingly, the uses and users have been widely separated, with focus on quite different budgets and little communication between them. Only recent events have even begun to bring the budgets into the public eye, but still only a small "expert" group understands them. The result is that the users never were to form themselves into pressure groups that might defend, scrutinize or press for improvements in the indicator and its methods.

Notable by its absence in this account is the use of budgets in analysis of economic or social issues. At most a budget may be used as an approximate income line for identifying population groups. But as it does not represent a clearly definable variable, it does not fit easily into the models social scientists may design. It is difficult to relate changes in a variable on which so many factors may operate to changes in some other variable. This failing of the indicator, due largely to the lack of theory that went into its design, appears to have important consequences for its use. Since it cannot be used in theory, it is difficult to use in policy analysis, which also requires models of social or economic change. Moreover, the failure of the theoreticians to support it or attempt to solve or obviate its

methodological and conceptual problems may mean the budgets will never meet the tests of relevance and rigor that would make them widely acceptable.

Contexts of Use

Budgets appear in most of the arenas of social planning and action - policy discussion, program design, administrative operation, advocacy proceedings and academic research. They appear in some contexts, however, more frequently than others and are better suited to some than others. Moreover, uses in each context are associated with different audiences, expertise, and controversies. The diversity of uses is far greater than for unemployment rates, which are largely confined to program and policy discussion. However, sheer number of uses does not seem to be the key to institutionalization of the indicator. In fact the policy and program level use may be the really important ingredient.

Policy Discussion. Though many issues of public policy involve objectives of income adequacy, budgets have emerged only infrequently and sporadically in policy discussion. There are two reasons for this fact, the first of which is the difficulty of applying budgets to a population. The second lies in the large element of value judgment in the budget, combined with the obscurity of the methods. Policy discussion is centrally concerned with values and cannot gloss over them as easily as some other types of discussion. For budgets to be useful in policy analysis, representatives of different views must recognize and agree

on the inherent value judgment. This is seldom possible, as they are many and hidden.

A policy is a broad statement of intention and objective. It may also include a strategy for achieving the goals. It differs from a program, which also has an objective and a methodology, in that a policy considers the whole system rather than a limited subset of it. (68) It sets system goals like the increase of social and economic mobility in the population, and it might also say that increasing availability of education was a good way to accomplish this. A program sets more limited goals and more specific methods, tactics rather than strategy. Its design may ignore systemwide consequences which can be contrary to the program's immediate objectives. A program is the result of a policy, or it should be. One program that might grow out of the mobility policy could be a college scholarship program. The goal would be a number of college graduates of a certain type. This achievement might or might not further the goal of mobility, depending on whether the graduates would have attended college anyway. Only policy criteria permit analysis of the latter type of issue.

At the policy level, the use of budgets as income adequacy guides present some complications. First, policy discussion, particularly that pertinent to income adequacy, is generally carried on at the state or national level. If an analyst wishes to use the budget criterion to count or identify people or groups in the population whose incomes are low, a great deal of data is required - more than has been available

on a large scale until quite recently. In particular, data is required on family incomes by family size because budgets are so specific in nature. Moreover, until equivalence scales were issued with the 1946 CWFB, it was impossible to classify the vast majority of households at all with the budget criterion. It simply did not apply to other than a four or five-person family.

Secondly, policy discussion involves the setting of priorities and the definition of goals. As such, basic values come into play, indeed into conflict. Moreover, the discussants of policy are very largely laymen - not experts in statistics, consumption analysis, or budgets - Congressmen, high-level administrators, journalists, the general public, large business and labor groups. This combination means that budgets are frequently not accepted as bases for decisions. The hidden and explicit values and the mysteries of their design make them suspect to almost all, particularly those who do not like the result - the income level they define, or the people they identify as likely beneficiaries of policies. As a result, though budgets are frequently offered in policy discussion, they are seldom decision criteria. Instead the goal of income adequacy often recedes.

An indicator which is used and accepted in important national policy can develop a wide, strong backing from the powerful groups that depend on its value, just as did the unemployment indicators. Its permanent existence may be written into law at this level and its continued scrutiny guaranteed the way the Employment Act guaranteed it

for unemployment data. We have never established a general policy of income adequacy with accompanying mechanisms to carry it out as we did for employment. However, recent efforts to reform welfare are tending in the direction of such a policy. If it is established, the indicator which makes the programs go may quite possibly be a standard budget - though perhaps with many changes and considerably more widespread understanding of the concept and methods.

Program Design. Budget use at the program design level does not have very different meanings or implications than its policy use. Indeed both are part of a single continuum in which policy goals are supposedly expressed in more detail at the program level, though of course elements may get lost and others intrude in the translation. A program does depend on a model. That is, the translation of a policy to promote equal opportunity via education with a program which provides specific benefits in a particular format depends on one's model of how education actually does affect opportunity, one's definition of opportunity, and one's model of society and how it is now working. For example, one can promote social, economic, or racial integration at various educational levels, or provide assistance to groups for education at one or another level, one can try to change the nature of education.

Budgets enter in at the program design level in several ways. The criteria may help to count the numbers who will use the program; they may also define eligibility limits for benefits or identify the groups so that specific measures directed at them may be designed.

Often the same people design programs and policies, but the general public may be less aware of these more detailed considerations. They may be a level or so removed from the public figures who argue policy issues. The detail of program design may be of less interest to the public and be less understood than broad policy questions. Many of the important value decisions have been made once the policy is set and people turn their attention elsewhere before programs are designed to carry it out. Unemployment rates have some role in program design in triggering benefits in areas of substantial unemployment (though the rate is figured slightly differently from the national one). But the unemployment indicator is an aggregate figure and not particularly pertinent to program design.

Administrative Uses. A common but less interesting use of budgets is in the administration of social programs. Again we should note that we are drawing an arbitrary line in a continuum of social decision-making, here between program design and administration, or the actual carrying out of the program. Administrative actions may amount to further specification of the details of a program. However, they are less public than the program design we have been discussing so far. Administrative decisions usually are taken without any effort to achieve public consensus or even to inform the public. They may or may not carry out program designers' intentions; they may fill in fuzzy areas where intentions were not obvious. Thus administrative procedures are a separate form of program definition - they occur in

a different way and according to different criteria, and with different authors than the ones we have been discussing so far.

The administrators using budgets may be the personnel of public or private social agencies or programs, or managers of businesses. The decisions they make about benefits, payments, fees, and wages have tremendous impact on the lives and pocket books of many individuals. The administrators may use the criterion of a budget to establish general guidelines or to distinguish among individuals. The development of the equivalence scale greatly expanded this use. Administrative uses are extensive but, at this level of decision, little is documented or discussed. Usually only the individual affected is aware of what is happening - and even he does not know what the reasoning is behind the decisions.

Administrators may be in a position to understand and use the budgets more appropriately than others busy with discussion of broad issues and requiring a handy index. They may analyze the budgets, perhaps alter them to suit their requirements. The budgets are very specific, and administrators have narrower populations to deal with than policy-makers and can potentially apply budgets to the correct groups. They are inclined to use a standard budget because it gives their decisions an air of impartiality to be based on a standardized measurement. However, when administrators use them as a specific standard to apply to individuals, as they often do, they are misusing the indicator. The standard never was designed to be realistic, and it represents only

a very approximate norm, at best, so its precise level cannot justifiably be applied rigorously to an individual.

Advocacy Uses. The budgets have also been used as evidence or leverage in arguing cases. Unions have been the principal such users in wage disputes. The budgets are in some respects not unsuited to this purpose because their value judgments and specific applicability may coincide with those of the advocate. As partisan tools, however, they are regarded with suspicion by the opposition, and therefore the users try to make the budgets appear to be nonpolitical, objective measures. Unfortunately for the specific purpose of wage discussion budgets have a basic flaw which hampers their suitability - which will be discussed later (p. 304). Other groups besides unions, such as the National Welfare Rights Organization, have occasionally used budgets as well to argue their cases.

Research Use. This use has been very infrequent, and principally confined to setting broad and other arbitrary income criteria for dividing up or analyzing a population. (69) As we have noted, budgets do not represent a clear, single variable which would fit into an analytic model of social change. Nor have people much studied the budgets themselves and changes in them for similar reasons. They are affected by so many influences and chance elements that the effort seems fruitless.

The impact of this relatively small research component in the use of budgets was that few academics were interested in them. Accordingly,

few understood them, supported their publication and use, explained them to laymen or did research to improve them. Since they were not part of models, there was no self-generating demand for the data from the research community. Moreover, this meant there was less chance of devising policies which would use budget data. Many policies for unemployment, for example, were derived from the theories that were currently in vogue employing the concept. Unemployment rates, then, were to have a singular advantage over budgets in that their simplicity made them much more attractive to researchers.

Types of Use

Within these contexts budgets are used in several ways. First, and most simply, they provide an income criterion which one can apply to actual incomes to count the number below the standard. This requires an equivalence scale to translate the income into that needed for different family sizes and data on incomes by family size. Without such data the budgets are sometimes used as a very approximate criterion for judging the magnitude of a problem. A sequel to this is the use of budgets to identify and characterize target groups. The data on family size and income is essential here because glossing over the differences would defeat the purpose. Information on other social or economic characteristics of families correlated with size and income would be necessary to characterize the groups. So this use demands greater accuracy and more information than the first.

The budget may be the criterion to identify individuals who are eligible for some benefit or to determine the level of benefit they should receive. While it is unclear what standard might be a better one to apply, the budget standard is not conceptually suited to this. As we have noted, the budget is an artifact, not representing any actual behavior, and many elements are formed by weighted averages of two disparate consumption patterns. Of course, one can look at the detail in the budgets' design and make changes so that it does approximate a standard applicable to the group in question. However, the lack of precision in the design process, the guesswork and the approximate nature of equivalence scales to make the use of budgets to set absolute income cutoffs on which to make decisions about individuals is a dubious proposition.

The budgets may also determine adequate income levels for benefits, or to calculate program costs. They are also used for two kinds of comparisons. One is between living levels among families of different sizes, as we discussed in connection with equivalence scales. Of course, the indicator and scales only give us cutoff incomes of equivalent welfare families of different sizes. We cannot make comparisons at other points, particularly since the utility for an increment of money changes in relation to the amount one has.

Secondly, the budget is used to compare living costs in different cities. One cannot apply a cost-of-living index to the problem since its value in one city at one time can only be compared with its

value at some other time, not with some other city. It is a measure of change not an absolute level. Moreover, an intercity index, measuring relative costs on the same principle has so far not been feasible because it would require a common market basket. Quite different market baskets make sense in different cities and important items in one city may even be unavailable in another. In any case, a principal factor in differential living costs between cities lies, not in the different costs of the same items, but in the different choices one must make because of such things as climate or availability of transportation. While the budgets are designed according to some judgmental methods and thus may vary according to some irrelevant factors, they still provide the best comparative measure for living costs in various cities because they take into account local requirements.

Purposes of Budget Use

Budgets have been applied almost entirely in connection with one of two fundamental kinds of concerns - wages and welfare. The wage questions include labor-management disputes, as well as unilateral management decisions and situations where government action affects wages. "Welfare" is here defined broadly to include public and private activities, of which the primary purpose is to provide payments or services to needy individuals.

In these two areas budgets have been applied in a variety of ways and at all levels, from broad policy analysis to the most routine

administrative decision. But clearly the budgets have a rather different role to play in each area, as the values involved are different. Welfare questions involve principally adequacy of benefit and tend to focus on the deprived groups. Wage issues involve not only adequacy but also fair payment for work done, and focus on the average family. Budgets turn out to be appropriate and inappropriate in different ways for welfare and wage issues. Sometimes the budget indicator has been the decisive criterion, particularly at the administrative level, and frequently it has been at least one important input to decisions. However, it has often failed to be accepted at important moments as a criterion.

Equity Issues: Budgets and Comparative Welfare

Within wage and, particularly, welfare questions as well as a few others, a principal issue has to do with equity. The term "equity" implies the distribution of benefits or burdens according to a fair criterion. Budgets have entered into the analysis when the goal is for families to have equivalent living levels. In many contexts the view is that some families should not sacrifice or gain more than others in terms of potential living level as a result of the decisions. A simple income criterion is thus unsatisfactory as it does not bear any necessary relation to how well one can live. There are many kinds of factors affecting the welfare level achievable for a given family from a given income. Family size and local living costs and styles are important factors for which the budget indicator does account

in conjunction with equivalence scales.

Therefore, budget criteria were frequently applied to questions of equity, particularly in program design and administrative decisions. Some criticisms have been voiced of this budget use, but the users seldom appeared to recognize and question the assumptions behind the equivalence scale. Nor have they introduced what seems the most obvious objection - that individual welfare levels are ultimately too complex and subjective to be truly comparable. Users either do not recognize or simply accept that the only adjustments to be made in accounting for the welfare potential of an income to a particular family is its size and location. This approach excludes a good many other factors which surely affect the satisfaction from income such as health, occupation or ethnic background and customs. Of course the budget criterion provides only presumably equivalent cutoff levels for different families. It does not attempt to compare welfare at other points on a scale.

Planning A Tax Program. The one important exception to the budget's principal use in the analysis of wage and welfare problems is its role in the planning of equitable taxation programs. Congress authorized the original City Worker Family Budget to provide a way of evaluating post-war tax reform proposals. In fact, it was used by the Treasury Department in testimony (70) and the report it prepared for Congress (71) as Congress had intended. The report used budgets to evaluate proposals for levels of income tax exemptions and deductions. It used

the CWFB, and higher level Heller Committee budgets for single persons and families as well as Heller maintenance level budgets. The Department's analysis also added "breakeven" levels derived from the 1944 Consumer Expenditure Survey. To adjust for family size they used BLS Equivalence Scales. The purpose was to establish criteria for determining at what point income should begin to be taxable and what size deductions for dependents should be. It required choosing a particular welfare level in quantitative terms as the exemption level and defining income levels providing equivalent welfare for families of various sizes to estimate equitable deductions for dependents.

The idea is not new that a measure of living needs is pertinent to tax policy. It dates back at least to the Civil War, when an income tax law was passed with a \$600 personal exemption. The Report of the Commissioner of Internal Revenue said, "It was, of course, the purpose of the law to exempt so much of one's income as was demanded by his actual necessities." (72) In 1920, a British Tax Commission declared there were three income levels where taxable capacity might be held to begin: the minimum income necessary for bare subsistence; the level necessary for health and efficiency; and an income sufficient to provide conventional comforts and luxuries of working people. (73) During the Second World War the Senate Finance Committee and the Administration disagreed on the best way of raising war revenues. Treasury Secretary Morgenthau proposed

additional income taxes, and the Committee was more inclined toward a sales tax. The latter used the budget concept to estimate how much of a \$5,000 a year income would go to necessities and thus how much there would be left for a tax. (74)

In any case, the 1947 Treasury Report used the budgets in some detail. Applying the Heller Committee dependency budgets, the report concluded that existing exemptions for 1- and 2-person families were too low. The report used the CWFB and equivalency scales to compare exemption levels at various family sizes with budget levels. It concluded that the largest differences between budget and exemption level was for families of 2- to 4-persons. It also gave, on the basis of budgets, an approximate scale of income needs for equivalent living standards for families of various sizes.

Treasury analysts were not well satisfied with the data. In the House hearings they cited its inadequacy for low income groups. They said the data on higher income families was inadequate to justify choice among alternative proposals because it pertained only to California. They clearly did not feel the data provided the decisive criteria, using it perhaps only because Congress had directed them to do so. Certainly the vast majority of their report and virtually all of the hearings were concerned with other matters. Interestingly enough, the tax analysts seemed critical of the budgets largely because there were not enough of them to apply to the range of population. They made no comment about the appropriateness of concepts or methods.

In fact, pressure for indicators to use in tax analyses was one of the reasons for the development of the higher level budgets in 1967.

Administrative Decisions and Equity. Most of the budget uses to determine equity questions were more at an administrative than program design level. These were less often questioned, though, in their own way, no less influential. Administrators tend to want a convenient criterion which will permit them to proceed with their primary job of carrying out a program with a minimum of argument and criticism. A budget is relatively easy to apply to an individual family with the aid of an equivalence scale. The administrator can claim it is objective because it is a criterion devised by someone other than himself. In one sense these budget uses were the most careful and thoughtful of any in that administrators usually understood and used the budgets in full detail and were aware of their characteristics, like specificity to family type. In another sense, administrative decisions are made and the limited role of administrators discouraged discussion of basic values or assumptions. If administrators are aware of the possible problems of budget use, there is little documentation of it.

In business and in government, budgets have been used to set wage differentials between cities or regions where the goal was to provide equivalent living levels to workers. The WPA designed and priced their budgets in 59 cities to set not only levels, but also intercity differentials in the wages it paid its employees.

The objective of WPA work was to provide some emergency level of support through work for as many families as possible. The purpose would be defeated if families could not maintain themselves on the wages, but if the wages were too high, then fewer could be supported. Thus the WPA objective was an index to regional differences.

Business too used budgets for measuring interarea living costs for wage and salary setting. Until recently they were dissatisfied with only the CWFBI or WPA figures for various areas and sometimes designed their own, higher level budgets. Their principle purpose with budgets was to make decisions on plant relocation and salary differentials for executives who move. It is in their interest to see that their personnel are willing to make the moves. This use of budgets as an intercity living cost index has apparently been important to business management, as it has supported the budget statistics primarily for this purpose of making this kind of comparison. They also encouraged BLS development of a higher level budget in 1967. Their support has been lukewarm, however, and erratic in view of some other budget uses they did not favor, in wage negotiation.

Administrators use budgets extensively to establish sliding fee and benefit scales, according to family income and size. Voluntary agencies provide many services to families who might not otherwise afford them, but are not impoverished. In the interest of equitable distribution of limited funds, they normally charge a fee for services

whose size is determined by the family's ability to pay. Budgets, particularly the moderate level ones like the CWFb, have been the agencies' traditional tool for determining ability to pay. Moreover, the agencies sometimes use budgets to guide in counseling families about spending.

Voluntary agencies have found the budgets so essential to their work that many have designed their own (based on BLS budgets) to account for local requirements and spending patterns. (75) Personnel of these agencies are among the strongest supporters of the budget indicator.

At the administrative level, too, benefits are often dispensed according to a formula based on budget data, as at least one of several criteria. Differentials in welfare payments to families of various sizes are usually the product of budgetary analyses. In fact, many state welfare agencies have designed their own maintenance level standard budgets for this very purpose. They use them not only to determine what payment levels to make, but also what the specific needs of individual families are in terms of consumption goods. College scholarships are another important category of benefits dispensed according to scales derived from budgets and dependent on family size and income.

We should note here, however, that budgets are not a universally accepted criterion for designing sliding income scales, though they are the most common. They are not used in a good many important situations, such as eligibility for public housing. The criterion often applied

is that the family must have an income equal to a multiple, somewhere between three and four times the rent for the apartment. The idea is related to the budgets and to Engel's laws, but nonetheless, it does not involve a budget directly.

Policy Discussion of Equity. The use of budgets to determine equity issues at the policy level of discussion is increasingly likely as the government expands its social responsibilities into ever-widening areas. There is growing discussion of new kinds of programs. They would neither focus solely on the needy, like welfare, nor be free to all, like education. Rather they would be dispensed in graduated fashion or paid for to varying degrees by recipients, according to some formula.

The discussion of sliding scales and, possibly, budgets emerges into the policy arena as we try to determine whether certain kinds of programs are feasible and what broad principles we should set for distribution of benefits. Social scientists have increasingly noted that free or low-tuition universities benefit the well-to-do who could afford other universities. They use up places, while private universities fail for lack of students. A basic policy decision that may have wide impact in the coming years is whether to raise tuitions generally to pay increasing costs or to change to a sliding tuition scale based on income, as Governor Sargent recently suggested for Massachusetts.

Day care is another type of government service on which the

principles of distribution are still being discussed at high levels. Since it is too expensive for a large percentage of families, in fairly large income ranges, it seems likely that sliding fee scales will be part of day care services. The decision, which will almost certainly involve budgets, will determine much of the nature and philosophy of any new program.

Budgets in the Determination of Wage Adequacy

The earliest budgets were designed to assess wage adequacy - indeed, the first expenditure surveys a half century earlier were motivated by the same concern. Budgets continue to be used for this purpose right down to the present, though this use has been controversial. The problem is that budgets relate adequacy to family size, whereas wages are paid according to type and quantity of work. The use of a budget to define wage levels also requires the assumptions that only one family member works and that the budget family size is typical, at least of the worker whose wages are in dispute. More than that, it presumes the judgments that wages should be adequate to support a family of certain size or at a certain stage in the life cycle and that there should not have to be more than one breadwinner. Disagreements over these assumptions have continued to crop up throughout the years. (76)

In spite of these defects, budgets have continued to play a role in the settlement of wage disputes. Their role, however, is not notable in direct labor-management negotiation, though sometimes unions offer

budgets to support their arguments. These disputes are predominantly determined by a test of power. However, when an arbitration board or an official government agency must make wage decisions, it cannot usually respond directly to political pressure. They prefer to refer to some social values in making their decisions. A measure of income adequacy, like a budget, can be a useful way of making or publicly justifying a decision. Although such groups have seldom been well satisfied with the budgets, the budget at least gives the appearance of objectivity and has the advantage that it is designed by some uninvolved group. Such a government board or agency may use the budgets to give an air of impartiality to their decisions.

Government gets involved in wage decisions usually in one of two ways. Most obviously government must pay its own employees, and it has used budgets to determine the wage levels. On a variety of other occasions government actions have affected the labor market, during war time, for example, or during the present inflation-unemployment crisis. Either for justice to workers or reasons of national defense, and the assurance of uninterrupted production, the Federal government has considered the issues of adequacy of wages. Finally, more with the motivation of general welfare and protection of unions, state and Federal governments have taken an interest in minimum wage levels. It is in connection with these topics that the principal policy uses of budgets in connection with wages have occurred, or, in some cases, failed to occur.

Budgets in wage determination then are used in a full range of contexts from advocacy to policy analysis. Many of these are the most visible and emotionally charged of all uses, and as such develop for budgets proponents and opponents and arouse and educate the interest groups, Congress and the public.

Arbitration Boards Use Budgets. The concept of using a budget, though only a primitive version, to argue a wage dispute made one of its earliest appearances in 1902 in connection with the Anthracite Coal Strike. A Presidential Commission was appointed to adjudicate the dispute and the miners offered the argument that they could not maintain a "fair standard of life" or the "American standard of living" due to the recent increases in the cost of living. (77) For proof, they offered their own data on increases in costs of the "necessities of life" and pointed out that their children were prematurely forced to work. The mining companies did not deny the miner's right to the "American standard of living." Some asserted it was impossible to measure, as so many would assert in later years, and others countered with their own measurements, like the number of pianos in workers' homes and the quality of their clothing and housing, which the companies said was adequate because it was comparable to that of similar workers.

Oddly enough, the Commissioners did not attempt to deal with the argument about living standards. It was odd because the BLS was at that time tabulating results from its nationwide cost of living survey, which contained considerable data that would have cast light on the usual American living patterns. Moreover, BLS Commissioner, Carroll Wright, was on the Coal Strike Commission. The Commission did use a measure of increased food costs from the survey to assess increased total living costs. Why it went no further than that is not clear, though it seems probable that Wright was reluctant to set up a normative budget, and perhaps jeopardize his Bureau's reputation for "scientific" impartiality.

The period from 1902 to the end of World War I was one of intense pressure on wages. Union activity was increasing, along with bitter labor-management battles over wages and unionization. The economy was growing and labor wanted to establish its right to a share in that growth. The war precipitated inflation, which caused much pressure for higher wages. The need to keep the economy running smoothly and producing the necessary defense needs meant there was considerable incentive to settle labor disputes. Arbitration boards were a common solution.

The arbitration boards for two street railway disputes were among the earliest users of budgets for wage criteria. In San Francisco in 1917, Jessica Peixotto, originator of the Heller Budget series in the

twenties, prepared and submitted an estimate to the Board of the cost of a "minimum standard of wholesome living" for a workman's family of five. The wage dispute between conductors and the company was settled by the board on the basis of this budget. Similarly, an arbitration board used budgets designed by employees, the company and finally by Professor William Ogburn to settle a Seattle street railway wage dispute. (78) Budgets were used in street railway cases in 1920 and 1921, by the Railroad Labor Board and arbitration commissions for bituminous coal miners and anthracite coal miners. In most of the cases the employees produced detailed exhibits on the cost of subsistence and minimum comfort budgets that had recently been designed. (79)

Other considerations prevailed, however, and the budgets were not decisive. The Railroad Labor Board actually announced a reduction in wages because it considered, as its enabling act intended, such matters as decreases in wage scales in other industries and prevailing unemployment levels. Now that a full cost of living index was available, the budgets were not the only living cost criteria available, and they played a lesser role.

Unfortunately, although both employers and workers agreed on the concept that a living wage should be paid, they could not agree on a measure and this hampered budget use by arbitration boards. Employees felt the minimum subsistence budgets offered by employers were too low, providing only an "animal existence" and employers objected to the

higher level "comfort" budgets that had begun to appear in 1917 and 1918. They called these "theoretical" budgets based on someone's view of what a group ought to have rather than what they actually did have. (80) The difference in the number of value judgments between the budgets was not great. The higher budgets were more liberal largely because of expert judgments about needs. In a way typical of all moderate level budgets down to the present, they provided a standard somewhat higher than that actually enjoyed by most workers. All the budgets became suspect, and a source of considerable controversy in arbitration boards. They were less and less used as decision criteria. Only where wages fell below minimum subsistence budgets, did these apparently provide some floor for wage awards.

Another important objection to the use of budgets in this context, raised by employers, was that as designed they were not specifically applicable to the situation. The National Industrial Conference Board (NICB) an employers' association, pointed out that budgets were inappropriate for their use in street railway disputes. The families might well not be of five persons, and the clothing requirements were different from those in actual budgets used, as was available housing in the railway conductors' communities. The NICB also raised the objection, often to be reiterated later, that the single-wage-earner family was not typical or necessary. (81) A basic value conflict was involved here, with workers feeling that one worker should be able to support a family and employers that it was perfectly appropriate for a

family to have more than one worker.

Wage Controls and "Substandard" Wages. During three major wars and again in 1971 the Federal government set up boards to control wage increases and adjudicate wage disputes. The same basic issue has arisen each time, and each time budgets have played a substantial role in resolving it. The boards limited wage increases normally to some percentage, related to the cost of living index.

This rule imposed an unequal hardship on the lowest paid, whose absolute increases would have to be very low. If their earnings did not provide a decent living before controls, they could never improve them after controls. Moreover, the disparity between higher and lower paid workers would widen rapidly. Therefore advocates before the boards, the boards themselves or Congress sought objective criticism to define "substandard" wages which would be free from controls. Standard budgets seemed to provide the only such possibility. Accordingly, they figured in discussions, though they were controversial. The National War Labor Board, established in 1913, stated as its policy:

"1. The right of all workers, including common laborers, to a living wage is hereby declared.

2. In fixing wages, minimum rates of pay shall be established which will insure the subsistence of the worker and his family in health and reasonable comfort." (82)

They clearly had the concept of a budget in mind, but no recent figures existed for their use in 1918 when the first important wage

case came before them. The board then ordered that a study of the existing budgets be submitted to them. (83) After examining them, the Board's labor joint chairman introduced a resolution declaring that the living wage was \$1,760.50. This was the cost of a budget made up by Professor Ogburn, then examiner for the War Labor Board, to determine the cost of a level of living "above minimum subsistence" for a New York shipyard worker's family of five. The proposal produced protracted debate between labor and employer groups, with the latter opposing designation of any fixed sum. The Board finally decided against a firm decision rule and in favor of deciding cases on an individual basis. An examination of the decisions suggests, however, that many were based on a subsistence level budget prepared by Ogburn at the same time as the other. Clearly the concept of a budget was a criterion somehow underlying the Board's analyses, although it was too controversial for it to use the budget freely.

The National War Labor Board (NWLB) established in World War II, settled the historic Little Steel Case in mid-1942 by awarding workers the 15% increase which corresponded to the rise in the BLS cost of living index. (84) Not long thereafter they adopted the principle as a general wage control yardstick. Shortly afterward, President Roosevelt issued an executive order (85) authorizing the board to approve wage increases where necessary "to eliminate substandards of living."

Accordingly, the Board chose a criterion for substandard wages below which an increase would be automatically approved. They chose somewhat arbitrarily a wage of under \$.40 an hour as the definition of substandard. Not many organized laborers received so low a wage in wartime, but finally in 1944 a case involving the Textile Workers came before the board. The union had priced the WPA 1935 Emergency Level Budget in five communities where workers lived and presented the figures as its principal exhibit. (86) They showed that \$.40 an hour would not cover the cost of the budget, which, in any case, represented a very low level of living, perhaps hazardous to health over an extended period, according to the WPA. The board, as a result, raised its definition of substandard to \$.55 an hour.

The employers did not contend that the budget represented too high a level of living, but took issue with the implications of using this particular budget and with some of the textile workers manipulation of the "official" index. An NICB study (87) pointed out that the budget was not nationally representative nor was the 4-person family it represented the appropriate family size. The union had added \$109 to the food component, which was originally based on a Bureau of Agriculture Economics' low-cost food plan, to account for inability of workers to purchase as efficiently as the nutritionists who planned the diet. They also included \$175 to account for Social Security withholding and war bonds. The NICB objected on both counts. Savings were not normally to be considered part of a minimum budget, particularly one to

be applied in wartime, when the goal was to cut back consumption. If wages were set on the basis of this minimum, they argued, the workers would not be providing their share of the sacrifice. However, since Social Security and war bonds were required and the budget was, after all, a subsistence level, there was not much fat left for sacrifice. The War Labor Board essentially accepted the TWUA argument. The board and its postwar successor, the Wage Stabilization Board, continued to provide substandard wage criteria until a number of years after the War.

A set of volumes which documents the decision-making process of the NWLB in tremendous detail provides an unusual insight into the role of the budget indicator in the Board's decisions. Most agencies do not terminate definitively, and if they do it is seldom with a complete official history of this sort. For students of the process of the creation of government policy this history is a remarkably good source.

(88) The study details the development of the substandard wage policy and makes clear that budgetary studies were a factor in NWLB decisions. However, it felt it could not raise its definition of substandard wage rates as high as the budgets would indicate because doing so might create a loss of employment. Here as in many other situations, criteria other than income adequacy would prevail.

Regional boards did have discretion to increase wage rates up to a level set by the National Board, and an appendix documents the role of budget studies, or lack thereof in these decisions. The two boards

which did use budget studies considered them only as one of several criteria. They relied on WPA Emergency and Maintenance level budgets as well as some subsistence budgets prepared by welfare agencies.

The boards considered the higher Maintenance budget to be more appropriate than the others to meet wartime needs for efficiency and morale, though they sometimes used the Emergency level budget on the assumption that the average family was less than the four provided for in the budgets.

Members of the Denver Board attempted to arrive at the minimum standard by the nineteenth century "breakeven" criterion. They tried to use the assumption that the income levels where net deficits occur on the average are substandard. However, they concluded that income levels so derived were not necessarily adequate by any other standards. They eventually recommended minimum standards well above any that would be dictated by such an approach. Clearly they felt an absolute standard to define needs was essential.

To use the budgets the board had to make various assumptions. For example some assumed one wage earner per family. This was, of course, a value judgment about what type of living wages should make possible. In fact, the average number of wage earners per family was somewhere between 1.2 and 1.5, and the Philadelphia Board used this assumption. The problem is that no family has 1.5 wage earners; some have one and some have two, so the wages based on this criterion are appropriate for neither group. The groups also had to make assumptions for setting hourly wage criteria about the length of a

"normal" or average work week, which was not obvious in wartime since it was as much as forty-eight hours in some industries, and lower in others. They often had to make rough estimates also to adjust for local differences in budget costs since budgets were not priced in all areas. Clearly, the use of the budgets was a complicated and approximate procedure, although the boards seemed to be quite sophisticated in their understanding of how to adjust and use the budgets in deliberations.

The most recent recurrence of this controversy over substandards was in 1971 and 1972. In the face of rapid inflation, combined with persistent high unemployment, Congress passed the Economic Stabilization Act of 1970 to give the Executive power to control the economy. President Nixon involved these controls in mid-1971. Accordingly, Congress reexamined the Economic Stabilization Act in late 1971 once they saw how the economic controls were being carried out. Testimony from David Livingston of the Distributive Workers of America and Congressman William Ryan (89) indicated that the Administration was giving no special consideration to poorly paid workers. Accordingly, Congress amended the Act to read that substandard wages should be exempt from controls. The House Committee Report (90) specified that they had in mind the BLS Lower Level Budget (used by Livingston and Ryan in testimony) as the criterion. The budget was priced at \$6,960 for a family of four. To use it directly to determine the substandard wage would have meant an exemption from control for all wages under \$3.50 an hour,

of close to fifty percent of the work force.

The Cost of Living Council went back to the familiar objection about the representativeness of the size of the budget family and the number of workers. They proposed to exempt wages up to \$1.90 an hour on the basis of the fact that the average number of workers per family is 1.7 rather than one. It was this decision that led to bitter controversy between Labor, Congress and the Administration and it was one of the factors that led to the four Labor members' decision to quit the Pay Board in March of 1972. Finally, in July a Federal court declared the Council's decision to be contrary to the intent of Congress, and the Council responded by raising its cutoff for "sub-standard" wages to \$2.75. It is noteworthy that although the budget criterion worked to pull the level up, it was not decisive or the wage would have been \$3.50. Other factors, principally the fear of inflation, dictated a compromise. Either the goal of permitting workers a decent living was of low priority or the budget criterion was not fully accepted. The two factors are closely intertwined.

It is probable that without a BLS lower budget much of the dispute might have taken a different form. Much righteous indignation and sympathetic press coverage for Labor's case resulted from the Administration's refusal to use its own "official" budget statistics. It seems quite probable that this dispute was one of the major reasons that the Administration decided the statistic was a political liability and is now making an effort to dispense with it. The problem caused

by the very existence of the statistic promises to continue in the near future and arise whenever wage and price controls are invoked.

Governmental Wage Setting. The government as an employer is not supposed to exert its power over its employees, but rather to abide by certain public values and set fair wages. It is only recently that public employees' unions have even been permitted. The adversary proceeding was thought to be a hindrance to governmental operation. Accordingly governments have had to justify publicly the fairness of their wage and salary scales. They used various simple quantitative criteria, like parity with similar workers, but often turned to budgets as the decisive criteria. The decisiveness of the budgets in some cases may have been due to the relative lack of discussion of the criterion in this basically administrative decision. Certainly one can find little reference to the usual criticisms of the suitability of budgets as wage criteria.

The first uses of budgets in government wage determination came in 1915. Budgets had been designed for wage evaluation prior to that time, but it is unclear that any were actually used. The city of New York was revising the salary-scale for street cleaners at the same time the Board of Estimate was working on a family budget to represent the needs of unskilled laborers. (91) The budget was submitted as a measure of necessary wages and, accordingly, wages were raised so that the maximum wage approached the minimum cost of living described by the budget. (92) In 1917 the Mayor of Dallas appointed a citizen's

committee to study the cost of living to recommend appropriate wage increases for city employees. They found the cost of a "safe normal" standard for a family of five and used it for their recommendations. (93)

In at least two important instances the Federal government designed budgets specifically to set wage levels. In 1919 the Congressional Joint Committee on the Reclassification of Salaries ordered the BLS to design a budget that would apply to the lower echelon Civil Service worker in Washington and his family. The Committee wanted to use the data in planning new salary scales in accord with postwar prices and living standards. Then, during the Depression the WPA designed budgets to establish wage levels for its workers.

Congress Seeks a Floor on Wages. Congress has only on rare occasions concerned itself with wages, but these have usually been in connection with wages that seemed unduly low. Budgets did crop up in these discussions, and Congressmen were eager for a convenient adequacy measure but the budget was not fully accepted. In discussions on minimum wage levels, budgets were conspicuously absent.

A major Congressional discussion on wages, the so-called "White Collar Hearings" (94) concerned substandard levels, as did the recent hearings on the Economic Stabilization Act. The wartime limitations on wage increases, coupled with rapidly rising living costs had put white collar workers in a severe bind. Unions were able to organize cases

and win increases before the War Labor Board, but most white collar workers were not unionized and, accordingly, were on essentially fixed incomes. The Senate passed a resolution resulting in extensive hearings, one of the main purposes of which was to ascertain the quality of life for those on fixed incomes. It was a policy-making hearing. No specific legislation prompted it; rather it was an effort to define the problem and search for causes.

In the hearings, the Committee pursued the question of whether white collar earnings were substandard. They heard a good deal about budgets and questioned BLS Acting Commissioner Hinrichs about the recently designed Steelworker's Budget. (95) The Bureau had been unable to get funds from Congress to do a new budget during the war, but instead had aided the Steelworkers' union in surveying their own members to develop a budget. The budget cost was \$2,600. Senators compared this figure and prices of WPA budgets with average wages for teachers and others and with the War Labor Board's substandard and wage criterion of \$.40 an hour. By whatever budget standard, wages were inadequate, often below Depression subsistence levels. The Senators pointed this out to Chairman William Davis of the War Labor Board and demanded to know why he did not favor incomes' rising to subsistence level. Davis replied the country could not afford it, and that, in any case, he could not define subsistence. Senator Pepper indignantly asserted that the subsistence level was not a matter of opinion but one of fact and, as evidence, pointed to budget studies done by the BLS and

various social groups.

The Committee's report concluded that millions of white collar workers had substandard incomes: that although \$50 a week provided only a narrow margin of living, the average white collar salary was \$28.69. It criticized the BLS cost of living index as a measure of actual living cost changes. Finally, the Committee recommended stronger price controls, an end to the War Labor Board's use of the Little-Steel, 15%-formula, a new substandard wage exemption level over twice as high as the \$.40 level, higher wages for state employees, and higher Social Security and Public Assistance. (96)

Most of this did not happen. The war was beginning to wind down. There is no question, however, that these well-publicized hearings served to call public and Congressional attention to a need for a measure of a standard of living for public policy purposes. Committee Chairman Pepper, among others, clearly felt that such an indicator was not only needed, but also that the concept was an acceptable and measurable one. It was clear that a well-established indicator would have provided a powerful weapon in the argument with Chairman Davis.

In connection with another issue, minimum wages, Congressmen and other proponents of legislation have seldom ever referred to budgets, though the central issue was stated to be the adequacy of wages. Budgets were certainly not applied in the original legislation or the later amendments. The Fair Labor Standards Act of 1938 declared that labor conditions exist which are "detrimental to the maintenance

of the minimum standard of living necessary for health, efficiency and the general well-being of workers." (Emphasis supplied) It declared a national policy to "correct and as rapidly as practicable to eliminate the conditions...without substantially curtailing employment or earning power." The legislation established a minimum wage of \$.25 an hour, which at 40 hours a week, would have provided an annual income of about one-third the cost of the WPA Emergency Level Budget for a family of four. Every minimum wage increase ever since has been similarly far below the lowest budgets. The \$.75 minimum in 1949 was inadequate to purchase the Emergency Budget and the \$1.60 minimum in 1971 would not bring a family of four up to the official poverty line.

Once again other criteria were actually more important than "the maintenance of a minimum standard of living" - for example, the relation of the minimum wage to prevailing wages in various industries, changes in the cost of living since the last wage level was set, and the probability that some workers would lose their jobs. Comparatively little of the discussion surrounding the legislation or the later amendments related to the goal of bringing wages up to a standard which would support even one person. (No indicator existed for the latter in any case). The issue was not seen as particularly relevant, since many individuals in low-wage industries would have other members of their family working. Once again, the budget criterion assuming one breadwinner, was inappropriate to the specific situation.

Policy for Poverty: Challenge and Opportunity for the Standard Budget

The Budget and Poverty Levels: A Summary. Until recently in the U.S., a standard budget seldom served as a measure of adequate income for programs of income support or other direct assistance. When it did, it was principally as an administrative criterion rather than a tool for policy analysis or program design. The superficial reason is that until 1969, there was no nationwide poverty budget. In fact, there was no official effort to design any general poverty criterion until 1964. The principal reason for this fact was that the little welfare policy we did have as a nation before 1964 was not primarily focussed on the goal of income adequacy. Insofar as there was a concern for adequate living standards, there was little consensus on the concept, and even less on a budget as its measure.

Once we developed a national interest in a policy with a focus on poverty itself rather than some more limited welfare questions, a poverty measure became essential. An administration eager to explain and justify its proposals groped around hastily for a convenient "poverty line." It is indicative of how poorly accepted the standard budget was as an income adequacy measure that they did not turn to this concept - particularly since the very first "poverty line" was based on a budget (p. 232). As policies were implemented and the official poverty line put to use in measurement and evaluation, a chorus of criticisms arose. It was increasingly obvious that this

"poverty line" did not represent either expert or popular values and models of the nature of poverty. Despite official efforts, the line was far from universally accepted or used.

The effort to decide an important policy-related indicator by fiat, a somewhat arbitrary fiat at that, was doomed to failure. After all, it took ten years of discussion and experiment before analysts could settle on a practical concept of unemployment which would fit into prevailing models of the economy and individual behavior and motivation. By the same token, an indicator of minimal income adequacy may require much discussion and examination in the context of feasible policies before there will be the general agreement on its appropriateness which is essential to its effective use.

In 1969 a lower level national budget finally appeared and entered the competition for acceptance as the poverty measure. It has already figured prominently in the high-level debate over guaranteed income plans as well as the one we have already discussed over substandard wages. As a result, the budget has been thrust into general public view, and is gaining strong adherents as well as opponents. As the debaters become more informed about the nature of the indicator and relate it to the policy questions, its values and methods seem bound to come under intense scrutiny. The standard budget's entire future may well hang on the outcome of this discussion. If it is accepted as a definitive income adequacy measure, in conjunction with new national

commitment to guarantee incomes, it may become a permanent, well-protected fixture like the unemployment rate. If its concepts and methods do not inspire sufficient confidence, it is likely to be seen as quite dangerous now that policies could revolve around its level. In that case, it could be abolished once and, perhaps, for all.

Welfare Policy: The Low Priority of Adequate Incomes. Until the "discovery" of poverty in the early sixties, U.S. public welfare policies and programs focussed on specific problems of the poor, through social work or housing, for example. Though direct public assistance exists at the state or town level at the beginning of the century, it seldom met standards established even by state-designed minimal maintenance budgets. The income maintenance programs designed in the thirties were not largely based on a criterion of adequacy.

It is not simply chance that the first poverty line was designed in England. The atmosphere was clearly ripe for it as the British began very early to build the Welfare State with its substantial social insurance programs. British focus on poverty as an issue in itself dates back to Elizabethan poor laws. Rowntree's measure of the numbers in poverty in 1900 helped to trigger industrial reforms, (97) and he responded to continued interest in the measures by repeating his study several times in the next half-century. In this country, however, budgets have focussed on the middle income groups, the working-class family, just as have many national policies and programs. In

fact our national focus has been very much on the enterprising person trying to help himself rather than the destitute.

An instance of this policy bias, as well as one more example of the general mistrust of budgets, is in the discussions over Roosevelt's Economic Security program during the Depression. It was out of this program that grew Social Security and unemployment insurance, as well as the first Federal aid for direct public assistance.

The President appointed a Committee on Economic Security, made up of Cabinet Members, an advisory group of the public as well as a technical group. He recognized that the measures had to be the product of some broad consensus, informed by the technicians. Their statements surely reflected this input, as did the indicators they used. The remarkable aspect is the way that the indicators they used belied the statements they made. The report declared:

"The one almost all-embracing measure of security is an assured income. A program of economic security, as we vision it, must have as its primary aim the assurance of adequate income to each human being in childhood, youth, middle age or old age..." (98)

The policy statement seems to demand the use of budgets as the only available way of assessing income adequacy for different types of families and estimating welfare levels for individuals in varying size families. However, the Committee goes on to cite figures about the percentage of employed with annual earnings of less than \$1,000

and less than \$1,500. The figures appear to have been rather arbitrarily chosen, round numbers with not much bearing on actual welfare levels. It is unclear how many or what size families are involved.

Congressional debate reveals a similar pattern of ignoring adequacy standards. It is true that budget data for families of all sizes was not available at that time on a national scale. The WPA budgets were still being designed, and the BLS "Health and Decency" budget was not very relevant fifteen years after its creation under conditions of depression instead of poverty. More recent, special purpose, or local budget studies were available however. Senator Wagner, author of much of the proposed legislation, appeared to have used some of these in making his recommendation to the Senate Committee of benefits of \$40 a month per person or \$2,000 a year to a family of four. Senator James Couzens of Michigan questioned him closely on the source of his figures and how precisely to measure a decent living standard. Wagner could not define or explain his estimates. He could not claim they were "official" figures nor could he explain their methodology. Another Senator was concerned with how objectively any such standard could be measured, and, in any case, felt that states could not necessarily be expected to pay for the full standard. (99)

The Administration bill in January 1935 said that any old age

pension shall provide an amount sufficient (with other income) for "a reasonable subsistence compatible with decency and health." The language, taken from Massachusetts and New York laws, is reminiscent of the BLS Health and Decency Standard. Its purpose was to permit benefits to vary with circumstances, rather than be fixed by law or regulation. States could be denied Federal funds if they did not provide adequate benefits. Several Senators, like conservative Harry Byrd of Virginia, were dubious about the principle, questioning Administration Spokesman Witte about how these standards would be set. Their particular concern was that, without any objectively determined standards, the Administrator of the program would have considerable arbitrary power. The flexible decency and health concept was not to become part of the program.

The discussion revealed that there was some interest in the idea of measuring a standard of living in some objective way. It seems quite likely that if a widely accepted, institutionalized measure had existed it would have been used in the discussion. It might well have meant that variable standards for states according to local conditions would be acceptable to the Congressmen, so long as they felt the data was above political manipulation. It would almost certainly have been used at least as a goal for program benefits.

However, there was no such accepted measure, and the legislators seemed inclined, in any case, to give more priority to other criteria.

Certainly the bulk of the hearings was devoted to such questions as the cost of the program, and criteria for benefits that had nothing to do with adequate incomes. Two major programs, Social Security and Unemployment Compensation, were both insurance programs. As such the focus was on the limitations imposed by ability to pay into the fund and fairness of benefits in relation to previous wages. Both programs were intended to apply only to short portions of the working person's life, and as such, one might well expect individuals to draw on other resources than the insurance. In any case, the final levels of payment bore little relation to a realistic adequacy standard, and have continued to lag behind even the most minimal estimates of need through the years.

The direct assistance program enacted through the legislation for the elderly, the blind, and dependent children, contained no requirement for an adequate payment standard. The payment level was left up to the states which, in practice, were to provide benefits lower than their own locally developed budgets indicated.

This important case of the nonuse of budgets, in a situation where they would have seemed the logical criterion, is testimony to the low priority of adequate incomes as a public goal and the failure of the budget to mesh with policy-makers' views. But budgets were not completely ignored in welfare related-programs before the sixties. As we have mentioned, public and private service agencies set up scales for pay-

ment and benefits. Naturally the budgets also served in this administrative process to set upper limits on income eligibility as an implicit income adequacy measure - though not one publically discussed or thoroughly examined.

The one area where budgets were openly used for welfare levels in the years before the commitment to poverty alleviation was in conjunction with the needs of the elderly. The Social Security Administration designed a special budget for a retired couple in 1947 with the aid of the BLS, which was preparing the City Worker's Family Budget. (100) The latter budget could not just be scaled down. An older couple would not have work expenses and would often own a home and all household equipment. On the other hand, they would have medical expenses. Congressional Committees have held hearings and Presidential Committees studied the problems of the aged, and both have frequently used this budget and its later versions (101) to evaluate the living standards and benefits for the elderly. (102)

Perhaps the budgets were used most often in connection with the elderly because we have less ambiguous values about income adequacy for them than for other groups and because it is more obvious how budgets apply in their case. No one contends that the elderly should work, and not all of them have children, so even the solution of children's support cannot be offered as a panacea. Most discussions

of the needs of the elderly appears to accept the idea that they deserve society's support at some decent level. Although this level of support has not really been provided for a number of reasons, the consensus seems to exist, and the budget approach seems satisfactory to defining income needs for this group. The issues of varying family size and number of breadwinners are not a problem in applying the budget so it is quite simple to use in estimating income adequacy for the elderly as a group. In any case, the various studies have had a number of results, not the least of which has been the raising of Social Security benefits over the years.

The Poverty Line: An Indicator Created by Fiat

In the early 1960's President Kennedy and the nation "discovered" poverty in the U.S. Sociologists, economists, and Congressmen had been talking about it for some time, (103) but suddenly the public began to think about the fact that millions of people in this country lived in some form of deprivation. President Johnson proposed a massive attack on poverty and, suddenly, the Council of Economic Advisors, the Federal agencies and the Congress found themselves called upon to define and measure poverty so they could discuss the proposals in more concrete, specific terms.

At first, the Council (CEA) looked for a handy figure for their 1964 report. The data on annual family income was only available at that time by gradations of \$1,000. They chose \$3,000 a year for

families greater than one because it was equal to approximately half the median income. Ironically they ended up with an absolute line Though they chose it as a relative one. The level was in line with the \$2,500 figure Robert Lampman used in a Joint Economic Committee Study on economic conditions in 1959. (104) They applied the flat figure to the population to show the number and composition of the poor for the President's 1964 Economic Report, and its justification of the need for a poverty program.

This line was attacked from many quarters. Its basic failing by most standards was that it completely obscured actual living levels of individuals in families of various sizes. Mollie Orshansky, designer of the retired couple's budget for the Social Security Administration, sought a better index for her research on poverty - an alternative to the Council's measure. (105) The measure she proposed and used was a multiple of the cost of the USDA's economy level diet. (The measure is described on p. 256).

The Council in its next, 1965 Report, (106) adopted her index as an official poverty line with startling results. The percentage of the poor who were children was much higher and the percentage of elderly declined since the line was flexible with family size. (107) The income level was not much higher on the average than the CEA's original choice. It was flexible in some respects, but still represented a fixed life style and living level. The Consumer Price

Index was applied to update it from year to year, but this does not take into account general rises in prevailing living levels. By 1970, its value was to be far less than half the median income, and it was clear the Index represented a fixed standard.

Both the Johnson and Nixon Administrations have tried to make this the "official" poverty level. The Census Bureau has used it since 1969 as the criterion to distinguish the poverty population, and it published special analyses of this population based on this poverty criterion. (108) The Administration increasingly cites it to assess programs and progress in defeating poverty. These actions do give this poverty line a considerable advantage over others that might be put forward. Official data comes conveniently tabulated according to this criterion and others are far more difficult to apply. Moreover, this line, and the numbers and character of the poor it identifies, get considerable publicity and acceptance from an uninquiring public. Certainly it is the path of least resistance to accept this line.

However, the "official" poverty index was increasingly unpopular. It did not correspond to concepts or models of income adequacy held by many policy-makers, analysts and even the general public. For one thing, many analysts objected to the fact that it represented a fixed level of living, on philosophical grounds. Poverty, they felt, was a concept relative to prevailing standards. Over time the view seemed vindicated, as the line became lower than popular views of what it

with the poverty line as a criterion for their analyses and planning.

(112)

Participants in the White House Conference on Food, Nutrition and Health (113) feared use of the poverty line in impending welfare legislation as they felt it too low. They recommended the USDA discontinue designing its economy food plan, which they claimed was unrealistically low and, most importantly, built a downward bias into the poverty criterion. Certainly the use of this food plan was one of the weakest points in the poverty index. It represented, at most, a temporarily adequate diet, and in any case, few, apart from trained nutritionists, could purchase the equivalent nutrients so cheaply and efficiently. So even if one accepted the basic assumption of the official poverty line that food was an index of welfare, the concept was still assailable.

Meanwhile in 1966 under Johnson, the BLS saw its opportunity to develop an important new statistic. The Bureau went to the Appropriations Committee with the request for funds to design a "lower level" budget. It was not, they said, to be a poverty index; it seems unlikely the Bureau would have received permission to make all the value judgments and fundamental policy decisions that would imply. But clearly, judging from the 1963 report of the Technical Advisory Committee, (114) with which the Bureau armed itself for its testimony, it was the definition of some socially defined minimum income line that

should be, as evidenced, for example, by responses to the Gallup poll on what families needed to get along on.(109) Moreover, the method of designing the line provided no assurance that families would have enough to cover some minimal needs. Even if the assumption behind the basic line was correct, that families with adequate diets could have adequate levels of other things, the data for the indicator was based on 1955 consumption patterns. The multiplier could well have changed, particularly since the cost of food relative to other items was declining.

Discontent with the index was at many levels. The various Federal agencies felt quite free to use whatever poverty line suited their particular problem when they wanted to make head counts or set criteria. For example, the formula to designate poverty areas for special funds under Title II of the 1964 Elementary and Secondary Education Act used a flat figure of \$2,000 of family income rather than the poverty index chosen to spread the amount of available money appropriately throughout the desired districts. (110) Academics proposed new indices for poverty and debated their merits at length. The Special Senate "Hunger Committee" chaired by George McGovern, which held several sessions on "Hunger and the Income Gap" heard criticism of the poverty line from witnesses. (111) The President's Commission on Income Maintenance Programs, established to plan for welfare reform, and consultants they engaged expressed dissatisfaction

the Bureau had in mind. Certainly this was the way the measure would be understood when it finally appeared. The Committee, concerned about the possibilities for evaluating results of the rapidly growing spending on poverty programs, approved the new budget standard.

The Standard Budget and Income Policy. The lower level budget was finally published in 1969, (115) five years after the inception of the poverty programs. Its concept was described in only the vaguest terms, more by implication than directly, and its level for a family of four turned out to be close to half the median income. It was considerably higher than the official poverty line, and, though the BLS did not offer it as an alternative, it increasingly was used as such.

The issuance of the budget coincided closely with President Nixon's August 1969 announcement of his plan for welfare reform. The Family Assistance Plan would provide guaranteed income maintenance to families, according to a formula whereby they would receive basic grants in some amount and have a gradually increasing tax on additional income. The graduated tax was to be designed principally to maintain incentives to work. Nixon described the purposes of this plan as to raise benefit levels in the states where they were lowest, provide assistance to the working poor, to avoid family dissolution caused by current welfare systems. Notably, income adequacy was not on the list, though it was implicit in other goals.

Nonetheless, the ensuing discussions in Congress of the President's

plan were to thrust the BLS lower level budget into the limelight and make far more people aware of the existence of the budgets than ever before. The Administration used the official poverty line (equal to \$3,721 in 1969) in their testimony. (116) Though they did not directly assert the line meant an adequate lifestyle, they counted potential benefits in terms of the number who would be pushed over the line; as if indeed it did represent a meaningful division.

The subject matter of the legislation, guaranteed income, and the rising public concern for underprivileged groups, was bound to evoke some comment about the adequacy of income. And when the Administration focussed so much argument on pushing people over the poverty threshold, it was to be expected that the poverty line itself would become an issue. Any line would have to be as much a product of public understanding and consensus as the whole program.

The hearings in 1970 and again in 1971 began to produce a rising chorus of complaints about the poverty line. Although many witnesses accepted the \$3,721 level grudgingly as a goal, like Mayor Lindsay did, (117) they clearly felt it was unsatisfactory but the only politically feasible one. Whitney Young, for example, said it was an acceptable immediate goal though it was arbitrary, and then went on to cite the BLS lower level budget as a more appropriate measure. Witness after witness testified to their preference for the BLS figure, and few, if any, claimed that the official poverty figure represented

adequacy. Senator Ribicoff, former HEW secretary, called for a national goal for all citizens by 1976 to be "assured of an income adequate to sustain a decent standard of life," and proposed that HEW produce a plan for this within 18 months. The Administration had unwittingly focussed attention on the inadequacies of its own index.

The hearings on welfare reform were not the only policy arenas where the BLS lower level budget was emerging. Witnesses critical of the poverty line before McGovern's Hunger Committee proposed the substitution of the BLS Budget level. (118) One panel of the White House Conference on Food, Nutrition and Health demonstrated their contention that the poverty line was too low by comparing it with the BLS lower and intermediate level budgets. Although they did not believe in the possibility of devising scientific standards for consumption items in view of differences in age, physical condition, and preferences and the enormous role of value judgments in setting standards, the panel went on to declare in its report that it was "convinced that a family of four cannot be fed adequately on an income of less than \$5,500 and still meet other necessities." (119) It seems most probable that they did use the budget to arrive at the figure, which was approximately the cost of the lower budget minus work-related expenses.

The budget is beginning to appear in an increasing number of highly public policy discussions. For example, the National Welfare Rights Organization and the National Tenants Association, among the most organized and vocal representatives of the poor, advocate a

\$6,500 a year guaranteed minimum income, almost exactly the level of the BLS budget. They attempted to have it adopted as a plank in the Democratic Party platform at the 1972 Convention. Increasingly, too, the budget appears in the editorial pages of newspapers, usually in criticism of existing levels of welfare.

The BLS budget is popular particularly with Administration critics largely because it is higher than the poverty line. Moreover, the budget draws on a long tradition and is the product of the highly respected, nonpolitical agency, the BLS, the agency that brought us unemployment data. Users of the budget always hasten to point out that it is from the BLS feeling this information imparts a certain respectability to the figure.

The Budget Threatens Administration Plans. In the course of these discussions, the budgets are gradually picking up adherents and gaining a public. Many of these do not as yet understand how the budgets are constructed, nor what their implications and weaknesses are. These will undoubtedly become clearer as opponents of budget use for poverty criteria try to pick them apart. Whether the budgets will survive this intense scrutiny is unclear.

Meanwhile, they are beginning to gain a strength and life of their own. The Administration producing them cannot keep rein on their use and impact. People certainly use the lower level budget to criticize or alter Administration programs. Congress was undoubtedly somewhat swayed by the evidence of the budgets to raise the income

floor in the welfare legislation above levels the Administration considers practical. A House committee's interest in the lower level budget led finally to the exemption of 10 million more workers from wage controls under a new definition of substandard wages. The longer the budget stays around, the more people will become aware of its existence and the less credibility they will give to the Administration's poverty line.

It is not surprising that the Administration decided to try to rid itself of their unwelcome statistic conceived of by an earlier, more social-reform-minded administration. Though it was supposed to be revised and updated from year to year as part of the BLS' regular program, it was only two years old in 1971. The Labor Statistics Commissioner thought he would eliminate it without too much trouble. He probably did not count on the fact that it had already begun to be an institution. He could not simply quietly discontinue it as he did with some data series not authorized directly by Congress, and not so much in the public eye.

The top echelon of the BLS made a plan to eliminate the budgets. They would provide for some of their uses with other indicators. They would devise an interim cost index for making geographical comparisons, in spite of the conceptual difficulties. Then the Bureau would publish expenditure breakdowns in three income groups, to give information on

actual spending but it would discontinue the publication of a normative budget standard.

They prepared releases detailing their objections to the concepts and methods. (120) Though real motivation for the effort to abolish the indicator was surely its unwelcome political role, the Commissioner was able to make a relatively convincing technical argument that ultimately the standard budget was an ambiguous measure. The release pointed out that it was unrealistic to derive budget components separately and sum them; it led to an upward bias. The release also pointed out the element of circularity involved in the areas where budget-designers had to choose levels directly, as they did with the fiat. Finally it concluded that the budget used was a norm, that the BLS should not be in the business of setting norms and lastly that it was impossible to set norms objectively.

The release and the whole discussion that ensued reveals how differently people regarded the indicator and its purpose, its actual and appropriate. For example even the BLS Commissioner apparently was not sure if the index was supposed to be a goal or an average since the release criticized it for being unrealistically high, while calling it a norm. The BLS had been disavowing that budgets were norms since it began publishing them, though their own descriptions belie this. Finally some of the users were to defend it as a norm.

The Commissioner presented the idea to the official BLS Labor Research Advisory Council Committee on Consumer and Wholesale Prices, and found the group indignant. (121) They accused the Bureau of being more interested in market research than evaluating welfare. They felt it was important to have a normative indicator. The Committee pointed out the areas of judgment that the BLS would be involved in it if they made the interarea index they proposed as they would have to make climate and taste adjustments. The Commissioner raised the objection that the components were chosen according to a variety of criteria, somewhat inconsistent with one another, and that the index involved adding apples and oranges. The Committee members pointed out that this was continually done in statistical research, even by the Bureau, which, after all, is responsible for the Consumer Price Index.

Commissioner Moore retreated to his point - that the budget has been equated with a "minimum" level, despite the Bureau's insistence that it has no way of defining that level. Lazare Teper, the Committee Chairman, and Research Director from the International Ladies Garment Workers Union was well-versed in the uses of Bureau statistics and responded with insight. (He was responsible for the 1944 Textile Workers Budget demonstrating substandard wages to the War Labor Board.) Though other Committee members were sophisticated and aware of the issues, he was probably the most effective spokesman. He replied that

the misuse of data or the fact that it is not perfect should not be cause for its abandonment. Other statistics were also at times misused, even by Labor Department spokesmen, he said who, for example, equated the category "employed" with "at work" although in fact the two concepts are quite different. Teper generously said he did not feel this was cause to cancel the unemployment survey.

Mr. Teper then added the most telling argument from the Administration standpoint. A short time earlier it had abandoned its regular collection of data on the very high unemployment in poverty areas on the pretext that the sample was based on old 1960 population data, while at the same time continuing other sampling programs based on such data. Labor in particular, but also business, had been critical of these moves, and Teper pointed out that to abandon the standard budget at that point would be regarded as politically motivated. Since the Bureau Chief was already in considerable political trouble over the handling of unemployment releases and was being accused of muzzling the professional staff, he had to be sensitive to the comment.

The interchange reveals considerable knowledge and sophistication about the budgets and the nature of the whole data production process. The labor representatives recognized and accepted the political nature of the data. It also reveals that budgets have defenders who may

make it politically very difficult to abolish them, and who certainly intend to make an issue of unwanted changes in data. Moreover, it shows that just as in the case of unemployment, the interest groups have come to trust the technical bureaucrats of the BLS, their honesty, competence, and impartiality. They are allying themselves with the bureaucrats against the political administration. It may well be that the interest groups will forego what they might ideally want in concepts and methods of an income adequacy indicator for the advantages of the BLS steady, dependable calculations.

Prospects for the Standard Budget

It is not at all clear what will happen to the budgets now. If they have become enough of an institution, the Administration may be unable to abolish them. In the course of the discussion of welfare reforms, which is bound to continue for some time, new national goals may evolve, into which the budgets may or may not fit, or which the budgets themselves may help to shape. The discussion of basic values, and intense scrutiny of the indicator may lead to improvements being made in it or perhaps to its complete rejection when a wider group of would-be users recognizes its basic ambiguity.

It seems most likely, however, that if policies and programs involving the distribution of large quantities of public funds are to depend on the indicator's level, its ambiguities and wide areas

of design open to judgment will disqualify it from use.

Indeed it could become a dangerous tool for deception open to manipulation by each new Administration, and therefore public consensus may ultimately be to eliminate it. So long as we have a commitment to alleviate poverty it is doubtful that consensus will permit the lower BLS budgets to be eliminated without their replacement by some other income adequacy measure that corresponds more closely to public conceptions and analytic needs than the poverty line.

At the moment the BLS budgets are clearly filling a significant need in policy analysis as well as many other areas.

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12. This more intensive case study approach did have its proponents also in the nineteenth century. The best known was Frederic Le Play who directed researchers in detailed observation of families life styles, expenditures and habits. Researchers lived with or visited daily the families under study, in a manner akin to today's participant-observer method. The detailed case studies Le Play published on each of several hundred European families provide not just a generalized description of their lives but an effort to explain and account for behavior - Le Play's work was far more directed toward the building of theory than was that of the statistical school.

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13. An account of Engel's analysis is given in Zimmerman, Ref. 11, Chapter 3, but reference may be found to Engel in virtually every historical work on consumption or budgets.
14. The translation is by Carle Zimmerman, (Ref. 11).
15. Carroll Wright made a mistranslation of Engel's laws, which appeared in Massachusetts, Commonwealth of, Bureau of Statistics of Labor, Sixth Annual Report, March 1875, Part IV, p. 438. His version, which was better known than Engel's, is as follows:

"First. That the greater the income, the smaller the relative percentage of outlay for subsistence.

"Second. That the percentage of outlay for clothing is approximately the same, whatever the income.

"Third. That the percentage of outlay for lodging or rent, and for fuel and light, is invariably the same, whatever the income.

"Fourth. That as the income increases in amount, the percentage of outlay for "sundries" becomes greater."

(See Zimmerman, Ref. 11 for this study in more detail).

16. An experiment is a situation where a change is introduced under carefully controlled repeatable conditions so that its effect may be observed, measured and verified, and compared with a control group. A quasi-experiment is a situation where we cannot fully control the conditions, as in most social situations. We can, however, take advantage of changes that occur naturally, taking measurements and making comparisons with groups where no change has occurred. While the principle is more involved than this description suggests, (see Hubert M. Blalock, Jr. Causal Inferences in Nonexperimental Research, University of North Carolina Press, Chapel Hill, N.C., 1961 for a fuller description) the key ingredients are the passage of time and the introduction of an identifiable change. Neither of these was involved in Engel's hypothesizing.

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"What is the smallest amount of money a famly can get along on in this community?"

The responses by income level were:

<u>Annual Income</u>	<u>Response</u>
\$10,000 or more	\$ 126 per week
7,000 to 10,000	102
5,000 to 7,000	101
3,000 to 5,000	100
less than \$3,000	99

Although each successive income group gave a lower required income, there was very little difference in the opinions of those with incomes of less than \$10,000 a year. (Gallup Opinion Index, Sept. 1969, pp. 5-6).

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Y_i = the average expenditure for food of family type i

X_i = the average money income after taxes of family type i

K_i = the measure of the level of the income-food expenditure relationship for family type i

e = income elasticity of food expenditures, assumed to be approximately 1/2.

The equation target equivalent income for family type 4 is:

$$\frac{x_i}{x_4} = \left(\frac{K_i}{K_4} \right)^2$$

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PART IV

CONCLUSION: PERSPECTIVE ON THE INDICATORS

CHAPTER I

A COMPARISON OF UNEMPLOYMENT RATES AND BUDGETS AS INDICATORS

Common Patterns

The two case studies of quite different indicators reveal important similarities in the institutions and processes through which both indicators were created and evolved, though the uses of the two followed divergent patterns. Some of the similarities derive from the reasons the indicators were chosen, their long history and wide use, but many of them reflect patterns that are likely to occur whenever indicators are successful - that is, accepted and used. The similarities have to do with the ways they become accepted, the nature of the institutions for their collection, design and use, and ways they have been regarded and used by the public and the experts.

The history of both indicators is long, as we have noted, but more significantly, in both cases a good deal of time, effort, and experimentation went into the creation of the indicator. The unemployment rate required ten years of intensive work on concepts and methods from 1930 to 1940, and at least as long a period before that for the foundations of public interest to grow. The standard budget was a concept that emerged from fifty years of research by students of family

consumption patterns in the nineteenth century. Moreover, although the first budget was designed in about 1900, we did not devise a completely standardized method for it until 1946. It seems likely that indicators generally will require time for their development-time because the designers and users want to think through the alternatives and their implications, because new methods may have to be developed, and because data collection and experimentation take time.

The institutions designing and producing the two indicators have had much in common. The Bureau of Labor Statistics of course, has been the key institution in the production of both indicators, and the record in both cases clearly demonstrates that the Bureau's reputation for nonpartisan professionalism has greatly enhanced public confidence in the indicators. In the case of unemployment figures, Congressmen gave greater credence to Bureau statisticians than Administration appointees, and with the standard budget the "BLS" tag has clearly conferred an authority on the indicator. Part of both indicators' prestige and acceptability derived from the characteristics of the producing institution.

Other data producing institutions involved have had similar characteristics. The Census Bureau has been the data collecting agency for the unemployment series since 1940, and it enjoys the same kind of reputation and has the same sort of expertise as the BLS.

The WPA Division of Research was responsible for a sizable portion of work on both indicators, though its role was more critical to the unemployment survey than to budget design because the basic principles of the latter had already been established before the Depression. A few other Federal institutions were involved in producing budgets, like the Agriculture Department and the Social Security Administrations, but these agencies shared many characteristics with the BLS in that they had strong research groups with professional status and separation from the operating branches of their departments.

The Federal agencies were not the only ones in either case to produce the indicator. From time to time private and other public groups produced both budgets and unemployment estimates. As the Federal figures became more reliable or accepted, the proliferation of competing indicators subsided. In both cases, interest groups, in particular the research departments of business and labor organizations, produced their own versions of the indicator. They were predictably biased in one direction or another. Union budgets were higher than management's and employers' unemployment estimates were lower than unions'. Predictably too, such figures were not generally persuasive, and their use simply created another incentive to get definitive indicators, or, at least, ones unsullied by partisan designers.

The origin and course of development of both indicators has been critically determined at many junctures by outside events. Wars and depressions in particular have impelled developments in the indicators, while lesser problems have not. Both these indicators have required tremendous social upheavals as well as specific issues focusing attention sharply on the particular topic before a real public commitment would be made to develop and use them. Perhaps in an era when a public is more disposed toward the idea of using social statistics, less incentive might be required to develop new indicators. But greater knowledge and competence will not eliminate a fear of indicators and the way they may define and demand problem solution. Therefore, strong outside motivation may always be required for the development of new national indicators.

For both indicators described here, it was the legislative branch of government that provided the important impetus for developments. Although a permanent arm of the Executive has been essential to dependable production of both indicators, it seems likely that neither would have started at all, and that neither would have been as carefully designed in concept and method, if it were not for Congress. Although some individuals, like Labor Statistics Commissioner Carroll Wright or Ewan Clague in the sixties, have played a catalytic role or had some personal vision which promoted the indicator, the executive branch of government was not the instigator of the statistical series.

In the case of budgets, in 1888 it was Congress that requested the expenditure studies to settle the questions surrounding the tariff issue. Carroll Wright may have planted the idea, but it was not the Administration that put the political force behind it. It was Congress that consistently demanded each of the Federal budgets until 1966, with the exception of the WPA effort. It is Congress that in 1972 is injecting BLS budgets into policy discussions of wages and guaranteed incomes.

For unemployment in 1928 then 1930, it was a Congressional Committee that wanted the inclusion of the questions in the Census. Congressmen repeatedly complained of the inadequate data on unemployment in the Depression, keeping up the pressure on a reluctant Administration, which finally resulted in the 1937 Unemployment Census and ultimately the monthly survey. Finally, the Congress, the Senate in particular, was responsible for the idea and the passage of the Employment Act, which assured the continued production and use of unemployment rates.

This pattern of legislative-based drive for indicators is not surprising if one considers the role that indicators would play. They were weapons for legislators to fight Administration proposals, or more importantly, to criticize current policy. The indicators are public, obvious measures which may or may not reflect

Administration activities, but certainly they can attract attention and create difficulty for an incumbent administration. Moreover, Congress must discuss things at a broad level in general terms understandable to its many members and much of the public. The simple "facts" represented by an indicator were constantly in demand to settle questions and permit rational argument. Within the Executive decisions may be made with less direct reference to broad public values that the indicator may represent and in accord with more elaborate and complex data.

In view of Congress' interest in the data, it was predictable that elaborate arrangements would be made to assure that it appeared to be first, nonpartisan and protected from immediate political considerations, and secondly, accurate and reliable. The Bureau of Labor Statistics, in the tradition established by Wright, shied away from all political involvement. Its officials refrained from expressing policy judgments, and they preferred to avoid controversial data. In 1942 and 1943 when the cost of living index was under attack, the BLS Acting Commissioner resisted any sort of public discussion of its design, fearing the intrusion of politics. But the more effective approach to this depoliticizing of the indicator was to use outside or interagency committees of technical personnel to evaluate the indicators or suggest changes. The BLS called in a technical group to design the original City Worker Family Budget and again to

assess the uses and needs for change in the budget in 1962. The Bureau officials constantly retreated behind these Committee's recommendations, offering few opinions of their own to Congress. They justified their requests with this weapon of "impartial," expert opinion.

Professional advisory or investigatory committees showed up at several critical points in the story of unemployment data as well - in 1930 in the design of the Census, in 1954 in connection with the sampling discrepancy, and in 1961 the Presidential Committee to respond to the Reader's Digest article. In the case of unemployment, Congress also acted as watch dog. In both cases, the executive data-producing agency was closely scrutinized from the outside, usually at its own instigation. The scrutiny served three functions. It helped produce internal change, protected the agency from criticism as partisan or unprofessional and provided backing for requests for expansion. In each case the committees evaluated the technical problems, made comments, and ultimately suggested new or expanded activities. The members of these groups have become very involved and eventually operated as lobbyists for the indicator.

Both indicators have gone through some equivalent stages in the development of concepts, except that the budget has not left the early stages. There was a period when the unemployment concept was ambiguous, not fully spelled out, where each analyst could produce different figures because of fuzziness of the concept.

Neither indicator was created and applied by fiat. The effort to construct the unemployment rate by fiat failed in 1930 when the Administration simply decided which of many marginal groups were the unemployed. It was met with many protests and complaints. The concept was not useful in analysis and it did not match common conceptions of unemployment. No measure would be instituted until one was found that somehow met these two criteria. By the same token, the peremptory declaration of a poverty line did not work in 1964. It soon became too low to fit popular conceptions. The way it was constructed, with an economy food plan, was not accepted, and many objected because it did not increase relative to life styles and incomes. The lower budget seems no more likely to be arbitrarily and effectively declared a poverty line. If it becomes the accepted poverty line, it seems likely that it will require the same gradual process of testing, exploring, and eventually acceptance that the unemployment indicator required.

The concepts and methods of the two indicators have changed over the years in response to values and methodological developments. The unemployment concept was changed in 1957 and 1967 to reflect new work patterns and new concerns. The seasonal adjustment was introduced to meet demands for finer tuning of the economy. The development of subsidiary unemployment data to back up the overall figure in the sixties reflected new analytical approaches and an increasing concern

with specific population groups. Official budget levels and content reflected contemporary life styles, changing every few years or so. The methods of design became more routinized in 1945 and the standard was altered to apply to the whole income range. In both indicators there was a lag between changes in values and changes in the indicator. It took time to recognize and agree on a need for change and implement it.

One concern of indicator designers has been that changes in indicators would spoil their continuity, while lack of change would soon make them irrelevant. The issue has resolved itself for both these indicators in a surprisingly satisfactory way. It has proved more important to have the indicator represent current conceptions than to be perfectly continuous. The budget turns out to be more comparable as a measure of income norms with the concept changed than it would without them. Although long-term changes in unemployment are hard to interpret in view of its methodological and conceptual alterations, it has been the short-term that has been important. Moreover, it is unclear, in any case, that if we had insisted on the same unemployment concept continuously, it would have measured the same thing over the long-term. As the unemployment story indicates, the questions we ask get different answers in different times and places. A quite different identification procedure and even definition

may be necessary to get at unemployment in Depressions than in wars, for example.

Once a government agency produced each of these indicators, they became public property. Despite the BLS and Census Bureau educational efforts on the indicator purposes, data quality, and methods of design, both indicators were often used without regard for these caveats. Both have been used descriptively, analytically and normatively though they are not equally suitable for these purposes - and were certainly not intended for all these purposes. It seems clear that the indicator designer cannot control data uses, but can at best encourage those he wants. He will have to be alert to the ways data are likely to be used, as well as those he intends in considering the impact of various design choices.

The two indicators have appeared, though to differing degrees, in policy analyses - the broad, high level consideration of societal goals, setting up priorities, and choosing of strategies to meet them. It is in this arena that both indicators have come to gather most potency. It is here that they become most visible, have the greatest potential impact on public actions, and where they have gained most of the interest and support that would protect them and assure their continuity. At this policy level, Congress, the Cabinet, or the President may use the indicator in making arguments and analyses. In this process interest groups have been awakened to the importance

and implications of the indicator's existence and characteristics. Those who would be benefited by the indicator's use, or who simply found the indicator facilitated discussion and action, as many did with unemployment, rose to defend and protect the indicator.

It is at the level of policy use that the process of institutionalization of both indicators seemed to begin. Of course, the policy use of budgets has been far more sporadic, shorter-lived than for unemployment figures so it is difficult to know if the budgets will also become firmly established. An examination of the differences between the histories of the two indicators will hopefully suggest why they are not now both equally well established and what the prospects are that the budgets will become the same kind of permanent fixture as unemployment figures in our decision-making apparatus.

Differences: Indicator Design and Use Interact

In 1972 the unemployment rate, with its forty years of history, is a firmly established indicator, whose important role in public "problem-finding" and solving is secure. The much older standard budget, however, produced by the same agency as the former figure and serving thousands of uses, is on the verge of elimination. The unemployment rate has become an institution in the sense that it has a life of its own beyond its immediate uses. It can define problems where none were seen without it. Important groups in the power structure see it to be in their interest to maintain the indicator

and keep it free of short-term political pressures. They keep it under close scrutiny and defend it when it is attacked. The standard budget, on the other hand, is used, but it is not widely accepted as the correct indicator of income adequacy. It has little role, therefore, at the policy level and, unlike unemployment, there is no statutory requirement of public responsibility for income adequacy. There are few inside or outside government who would put much effort into protecting it, and few who even understand how it is constructed, or what it implies.

The type of institutionalization that the unemployment indicator has had does create some problems. Because it is so firmly established and relatively fixed in form, it can draw attention to problems formulated in ways that may not mesh with current values and problem analysis. Thus its exclusion of the discouraged workers made it difficult to focus public attention on the problem. It is possible, however, for concepts to change, and the process has begun. While institutionalization presents a danger of "hardening of the categories," the problem is not insurmountable.

The precarious condition of the standard budget appears to be a much greater problem than the opposite condition of institutionalization. To begin with, if it is possible to eliminate indicators whenever they convey information unsatisfactory to the data collectors,

many policy-makers will not be able to depend on them and will not bother to pay attention to them when they are around. Secondly, if policy-makers and analysts do not fairly generally accept the indicator as a dependable and accurate permanent representation of some variable, it cannot serve much purpose in facilitating discussion or making possible agreement on goals. On the contrary, the discussion may simply turn into an argument about the indicator. It is important for those interested in planning indicators to try to understand how the difference in acceptance and institutionalization of the two indicators came about.

The basic reasons come from two sources. One has to do with the fact that as a nation, the U.S. never focussed so sharply on solving the problem of income inadequacy as it did on unemployment. We have considered it from time to time, but never set up permanent, legal responsibility for adequate incomes. Such legislation might have required the use of the budget on a regular basis, just as the Employment Act demanded unemployment figures. The other reasons for the differences derive from the basic nature of the two indicators, one, relatively simple and direct, the other complex, ambiguous and highly normative.

The reasons policy never focussed squarely on income adequacy go back, in part, to the characteristics of the budget. Of course, some of the reasons have to do with the Puritan ethic and resistance

to the welfare state. We have not decided that government support may be necessarily a way of life for some, but have preferred to think of it as a temporary measure. Accordingly, adequate income has given way to other considerations. However, if we had had a generally acceptable and accepted income adequacy measure during the Depression, it might have become a part of the goals and policies established then. Certainly legislators were interested in the idea, if unsatisfied with the actual indicator. The question remains open at this point as to whether any measure of income adequacy would capture some common concept - if indeed such a concept exists or could be created. Here we shall examine why the concept of the budget and the methods of measuring it were so much less satisfactory than concepts and methods of unemployment data.

First of all, the concept the budget represented, a social norm of adequate consumption, was not in common parlance, like unemployment. The assumption was that it was an implicit concept, that many of us might subconsciously apply, but those who understood the concept disagreed on its practical definition. The norm is not measurable by common, objective standards. While many of the users of unemployment data might not fully understand or even agree with the classification of marginal cases, most would have a similar basic idea about what unemployment was. The concept is objective in that we can observe unemployment fairly directly. The social norm of adequate income is more of a "theoretical concept" in Kaplan's terminology. We require

a fairly elaborate theory just to observe and measure it. Moreover, we can only assume it exists in the first place on the basis of theory which says that people operate according to some such norm.

To accept unemployment data we must assume that those we interviewed understood the questions about their work patterns in the way we intended, that they did not lie, that enumerators recorded honestly and accurately the information, and that our sampling models will reproduce actual population patterns from a subgroup. For the standard budget, however, we must accept all these assumptions plus several others. These others are, for example, that public health professionals produce standards which represent the social standard, that consumer choices reflect a common social standard, that people choose to satisfy by consumption needs within certain categories in a particular order, and so on. With each additional model we take a further step from credibility, as well as from understanding and increase the potential for error.

The standard budget has a far higher component of subjectivity than the unemployment rate. Although a few marginal situations have been included among the unemployed, on a value-basis, the unemployed can be counted by the objective criterion of current activity. If one is not at work, but looking for a job, he is unemployed. While the current BLS budget design does not depend on an individual's subjective decision, many ingredients depend on the basically subjective

decision of a standard-setting group.

Ultimately the models and multiple methods of the budget make what it measures ambiguous. Even the well-informed user of budgets is hard put to know what the measure implies. Its meaning cannot be communicated well and, in any case, it is unclear that consistent criteria were applied in the selection of budget components. These factors add up to confusion and distrust of the indicator.

The fact that the budget is a norm has also contributed to the difficulties it has had in being accepted. For the budget the technicians not only select the ingredients and decide how to combine them, but they also determine the amount of these ingredients. This quantity inevitably became a norm despite BLS disclaimers. It was used in many situations as either the target income or the definition of the income level below which a problem begins. With unemployment, technicians designed only the scale; the rate itself moved around on the scale. Whether the normative level is 3, 4 or 5% has been a subject of heated political discussion and economic analysis. Since the budget itself was the norm, it would be the highly political issue. Moreover, since the budget was so complex, ambiguous and allowed so much room for error, it became doubly controversial. To accept the budget would involve not just the acceptance of a statistical

"fact" which one might use in various ways, but the precise definition of a problem and a goal. A reluctance to make these steps is clearly behind current Administration efforts to eliminate the indicator. Its use is forcing the issue of adequate income into plans for welfare reform and forcing a particular definition of that income.

The fact that the unemployment rate was a national aggregate figure, while the budget was a representative indicator, highly specific as to place and family type, has also made a difference in the uses. An overall national percentage is simpler and more usual than this very specific yet unrealistic measure. The level of its components is somewhere between actual and ideal, and the choices are weighted combinations of divergent preferences. Not only is such a measure difficult to understand, it is also difficult for the user to know in what situation it is appropriate to apply it.

The unemployment measure is obviously a suitable gauge of national unemployment, but the budget is not obviously suitable in any situation. In fact, the critics have severe complaints about almost every use. The family type and the need criteria make the budget inappropriate for wage discussions. It is too approximate for setting specific assistance levels for families. Moreover, the criteria for selection of components do not necessarily mesh with those of various programs for which budgets define eligibility standards. As

approximate income lines for separating out broad population groups with equivalent incomes, the budgets do serve fairly well. But, if one is going to study these groups further and analyze their characteristics, one would have to understand clearly the implications of the selection criterion. The budgets' complexity precludes any such essential clarification and make it a poor research tool. Few researchers have used it, preferring to stick with more straightforward income criteria.

These differences in the nature of the two indicators have been a considerable factor in the differences in their uses and users. The qualities of the uses and users seem to have been the critical ones in the institutionalization of unemployment figures. Potential users were less able to understand the standard budgets and less willing to trust them, than they were the simpler, less normative unemployment figures. The greater difficulty of applying budgets than unemployment rates to broad population groups was a major obstacle to their use in the important, visible, policy-level discussion. The lack of trust and understanding of the budgets prevented their incorporation in policies of income support in the thirties; whereas faith in the unemployment figures made them an essential ingredient in policy apparatus set up by the Employment Act.

The specificity of budgets has meant that there has been a tremendous number of budgets, designed independently each with its

own methods and content. There has been until recently no authoritative budget for large groups to focus on. At most there were eight or ten unemployment estimates, but for many years there has been only one unemployment figure. Accordingly, the users of the budgets have been highly dispersed geographically and administratively. Budgets have been most applicable to limited administrative situations. Many more budget-users than unemployment data users have been middle-level bureaucrats than public figures. Budget users have been scattered throughout many kinds of public and private agencies at city, state and Federal levels, and they have not formed a national interest group. Unemployment figures, on the other hand, because of the Employment Act, affect economic policy across the board and, accordingly, are of interest to national power groups, such as business and labor. Although some labor unions have used budgets, they have been few and this use has been sporadic - not enough to assure their permanent commitment to the understanding and protecting of the standard budget series.

The unemployment measure is not designed with much more theory than the budget, but its greater simplicity makes it possible, nonetheless, to be a more useful research tool. If the budget is to be used in research, it needs more theory because it is so highly indirect a measure of so theoretical a construct. The budget's style, methods and content did not develop along with economic or

social theory and it simply is not pertinent to the issues in these areas. Judging from the important role economists have played in analyzing and defending the unemployment data when it was attacked and the importance the indicator gained when it was part of models of the economy, the standard budget's possibilities for institutionalization have been greatly handicapped in many ways by the lack of connection with theory.

CHAPTER II

SOCIAL INDICATORS FOR THE FUTURE

The similarities and differences in the two case studies and the logic of their patterns is suggestive for those who wish to plan indicators for the future. While the future need not exactly resemble the past, and indeed we study the past in the hope of improving upon it, many of the past patterns seem likely to recur because of the nature of indicators and the nature of social decision-making.

We can use the studies to help us prepare plans for future indicators which take into account those features which are unavoidable, which emphasize those which are most likely to make them successful and avoid the pitfalls of the past. On the basis of the studies, I propose some general guidelines for the planners of future indicators. Some may seem obvious at the present juncture, but most have not had explicit statement in the literature or planning for indicators.

Many of the guidelines stem from two basic principles. The first is that an indicator has significant political potential. If an indicator has policy relevance, its use will have an impact and it will become controversial. In focussing attention on problems and suggesting goals, it may please some, but is bound to displease others.

In fact the more impact an indicator may have on policy, the more likely it is to have opposition. The recognition of this potential is essential to any strategy for getting new indicators implemented and used.

The second principle is that the design of an indicator which is importantly used, is necessarily a process in which actual and potential uses influence and are influenced by the indicator's characteristics. Efforts simply to declare an indicator by official fiat have not been notably successful. It seems far more likely that many different viewpoints and hopes for new policies, much discussion, and experimentation will be required before a satisfactory concept is found. The concept may require the development of new measurement methods or the revision of old ones. The methods may require changes in the concept which then needs further consideration. The process when successful is likely to be time-consuming, iterative, and involve many people and groups. Moreover, an indicator which maintains its vitality and relevance over a long period is likely to be redesigned or "improved" from time to time, particularly after experience with its use builds up. If this did not happen, it would soon be out of tune with changing values, social theories and political realities.

Several recommendations for the designers of indicators flow from these basic considerations and more generally from the lessons of the two case studies. They are as follows:

Look to the legislative process to supply the initiative and political force to institute new indicators. Some proponents of indicators have already recognized the potential of Congress in this process and are focussing attention on the Full Opportunity Act. Congress was the principal instigator of new budgets over the years and consistently, until 1940, demanded adequate unemployment data. It was Congress too that began to use both indicators in the broad policy discussion which was to assure their political impact. Congress was the source of the Employment Act with its requirement for data. Given the potential of indicators as a weapon for "outsiders" to criticise an Administration, and the fact that once an indicator series is established, a national Administration can often do nothing to stop or influence it, it is to be expected that the legislative rather than executive branch will be most interested in indicators.

To get an indicator series started, take advantage of compelling current issues. To overcome inertia in the system and outright resistance to new and perhaps politically dangerous indicators, one can capitalize on current problems and focus attention on the need for specific indicators. Carroll Wright did this in 1888 when he used

the controversial tariff issue to focus attention on a need for family expenditure data. Without this spur, it is unlikely the surveys would ever have been done. Data gathering costs money and the Congress who must appropriate it has its attention riveted on the solution of immediate issues rather than analysis of long-range problems. Developments in both the indicators studied here, especially at the beginning, were closely tied to urgent problems.

This experience strongly suggests that any effort to institute a total system of social indicators in one step is likely to fail. It would require far too much political capital. It would probably mean giving some semi-independent institution the power to select, design and perhaps apply official indicators to current problems. Neither a Congress nor an Administration is likely to be willing to relinquish so much power over future problem definitions. In any case it is not clear whether indicators designed in such a way would have any impact. If the parties who would use the indicators had little input into their design, they might well ignore them, for all their official status. It seems far more likely that indicators will continue to be created, one at a time in response to pressures, with much public discussion before they are established.

Integrate the indicator into policy commitments. If an indicator has a specific role in the implementation of programs or policy to which we have a permanent commitment, it can become very strong.

Interest groups come to oversee and protect it, and an Administration is forced to continue its collection no matter how unpleasant the information it conveys.

Ensure that the institution which produces the indicators operates according to nonpartisan professional standards. In view of the political nature of indicators, they can easily become suspect. An indicator is confusing rather than helpful to discussion and planning if some participants accept it and others do not. An important insurance against this is keep the data-producing institutions out of day-to-day politics and staffed with people whose principal is to their professional standards. Occasional checks by outside groups on their activities can be an additional reassurance and a reminder to the agency.

Establish open processes for the design of indicators. That is, do not rely on a single bureaucratic group to create in a short period indicators that will be implemented and used. Rather, develop a plan which will provide both incentive and opportunity for economic and social theorists, statisticians and potential public and private users to participate in indicator design. Allow time for individuals and groups to understand the proposals, test their implications against their own needs, and visualize new opportunities. Make an aggressive effort to communicate to a relatively wide group the nature of the issues and decisions so that feedback may come before substantial

investment in an indicator. This kind of effort has been shown for both budgets and unemployment to provide the necessary inputs to the indicators which can make them relevant and used. It also provides public confidence in the product and often an important group of supporters.

Establish ways to allow for orderly changes in methods and concepts and permit public scrutiny of the data generally and irregularities in particular. Outside groups of well-known experts have served effectively on many occasions with both indicators to reassure the public about the methods of the data-producing agencies, to make recommendations about changes in concepts or method, and to follow up on their implementation. They provide a channel to the agencies for the expertise and views of the academic community.

Organized groups of less expert users perform some parallel functions. They complain when an indicator does not serve their needs or they do not understand it. In this way, they provide impetus for changes. Their questions and comments help to make clear to the agency where it has failed to explain the data properly. Finally, they too serve as powerful support groups.

Plan indicators that mesh as much as possible with theory. Think through and define clearly the concept to be measured, and choose, where possible, the clearest and simplest concept. Attempts to lay out clearly the relationship between the concept and its measure. If the

indicator is unrelated to economic or social theory, like the standard budget was, and if its concept and measurement are complicated and ambiguous, it is likely not to have the valuable interest and support of the research community. Moreover, it is far more likely to be suspect among the public and many potential users than a simpler, clearer measure. It is also far more likely than a simpler measure to be inappropriately used, cause distortions in policy and perhaps its own downfall.

Avoid indicators whose methods, or concepts are largely subjective.

An indicator is unlikely to be trusted and used by many people of different persuasions if it contains a large subjective element, and it is not very useful for research. The greater subjective aspect of the budget than of unemployment data clearly gave the former a large handicap.

Avoid designing indicators which incorporate norms. The decisions about target levels of an indicator are highly charged politically. They involve value judgments and models of the social or economic system. The preferred choice may depend on the level of other variables in the system. An indicator which incorporates a norm may be rejected for that reason. The issues of norm selection are so complex and so relative to a time and place that it is preferable to allow the policy-makers to set them in particular situations after

discussion and analysis rather than to fix them permanently in an indicator.