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MEETING HUMAN NEEDS IN THE U.S.:
A CENTURY OF SOCIAL POLICY AND SOCIAL INDICATORS*

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INTRODUCTION: Policy Indicators in Context

Much research in social indicators is hypothetical, on measures that should be developed if the time and money can be made available. But if the objective is to use indicators in policy, much more research must be done on how they work in practice. Far too many data are gathered and never used, and far too many logical, all-encompassing accounting systems never prove feasible to implement. Research has focused on concepts and techniques and, in the process, failed to deal with the context in which indicators would have to be gathered, interpreted, and applied. Therefore, I particularly welcome this symposium and the opportunity to explore further some of the experience with the actual development and application of social indicators in the U.S.

While it is my hope that other countries can learn from our mistakes and our successes, the learning cannot be direct. Countries develop at different points in history, have available to them different technologies and face different problems. In the U.S., for example, during the most rapid industrialization period, methods and concepts of social measurement adequate for useful indicators were not yet developed. Political systems differ, and cultural and environmental differences influence the meanings of events. A useful indicator in one society may have little application in another. While, hopefully, many techniques and strategies are transferable, what is important to draw out of the experience of another country is not the bottom line--"what indicator was used and to what effect?"--but an understanding of the overall process of indicator development and application.

From my perspective the design of policy indicators includes not only the development of concepts and the gathering and manipulation of data, but also the design of institutions for the production, design, and dissemination of indicators; the design of policy-making systems to use them; the development of client groups or constituencies who will protect them from manipulation; and the design of self-correcting systems to improve and redesign the indicator as necessary. This is no simple task. It takes time and the talents of many kinds of people. Many factors must fit together in just the right way. Policy ideas must link to indicator concepts; trustworthy data must be available when they are needed; and someone must be able to interpret them. There is an element of chance in whether all the parts will mesh, but without each of them, indicators will not be useful.

When I speak of social indicators, I refer to measures of social conditions in a population or a subgroup and of situations presumed to be directly linked to human needs. Thus a measure of the prevalence of malnutrition is a social indicator, as is the percentage of malnourished who have received food supplements. While so-called impact indicators, showing the state of the population, are usually the most meaningful, we must often make do with measures of whom our services are reaching.

In this paper, I will outline roles that social indicators have played in the most important areas of U.S. social policy in the last century. In each case I will identify the indicators that have been significant, discuss how and why they have been important, and trace their origin and development. In cases where social indicators have been little used, I look for explanations of their nonuse. Each example represents a different process and offers a different lesson.

The United States Context

A number of factors in the political culture and value system of the U.S. must be kept in mind for the stories to make sense. The U.S. government is a federal system in which power is shared in complex ways among levels and divisions of government and among organized interest groups. The Constitutional doctrine of separation of powers means that legislative, executive, and judicial functions are separate and, in theory, coequal. The system differs from a parliamentary one, where the legislative branch controls the executive and power is centralized. Moreover, as each branch has external sources of power and information from groups such as business, labor, environmentalists, or organizations of professionals, programs require political constituencies for success.

Certain functions are almost entirely the province of one or another level of government. The planning and management of schools and their curricula are primarily local functions, as is most police work, while defense and most anti-pollution regulations are federal. Housing and transportation are funded and planned with participation by state, federal, and local agencies. The relationship among the levels is not hierarchical, with a lower level implementing the policy of a higher level, but can be better characterized as negotiation. Typically, the federal government, which collects income taxes, returns revenues to states and localities. In some cases it does so for specific "categorical" programs it has designed and in other cases funds are offered in block grant form for expenditures in a broad functional area, such as education or public improvements. Funds may be distributed on the basis of competition among proposals, or allocated to areas by a formula, which often uses social indicators. Some programs require local matching funds and others do not, and policies and practices vary around the nation.

Local autonomy and states' rights are important values in American society and have long been equated in many minds with political freedom. The Constitution gives only limited authority to the federal government and reserves residual responsibility to states. Each increment in federal authority over the years has been resisted by those who fear centralization and big government. Federal policies tend to be more protective of civil rights and the poor than policies in all but the most industrialized states. The most accepted social policy roles for the federal government in recent years have been in protecting minorities from blatant discrimination, redistributing resources to areas with substantial poverty or unemployment, and providing funds for major capital investments, such as hospital or housing construction, in addition to statistics gathering and dissemination. Typically, federal influence is exerted indirectly through regulation of procedures and funding of new types of local and state projects which bring in new staff and change local power relationships. Seldom can the federal government force lower levels to act; rather, it must depend on cooperation.

This fragmentation of power is a partial explanation for the fact that in the U.S. planning is seldom done in the formal sense of establishing goals, systematically selecting coordinated strategies, and implementing them. Not only is this difficult in the political context, but there is a strong value bias against it. Planning is often equated with social "engineering," and seen as antithetical to the individualistic ideology, which is powerful. The ideal, in the view of many, is to have a self-regulating society on the market-based model, with the invisible hand guiding the process to assure maximum total welfare with maximum freedom of choice. While many argue that in the U.S., monopoly capital and government intervention are major obstacles, the ideal of laissez-faire--"let the market work"--is still strong.

This notion is closely linked to the central ideology of U.S. social policy--assuring equality of opportunity to all people, regardless of income or social status. Social policy has sought to alter institutions, such as education and the workplace, to achieve this. More recently, it has been thought that the disadvantaged, such as the poor and certain minorities, require compensatory efforts to give them an equal chance--such as additional educational investment or hiring quotas. In a pluralistic nation such as ours there are competing goals and theories, but equality of opportunity is still the most dominant, and policy arguments have centered largely on whether institutions need change, and how much and what form of compensatory effort is needed.

Latent objectives of controlling or altering the behavior of the poor or working class have also been present in social policy. Conditions associated with urban life and the alienation of labor have been seen as detrimental to the social fabric. Accordingly, social policies have attempted to maintain the nuclear family, to encourage home ownership outside of central cities, and to prevent child labor and permit mothers to stay home with children. These and many other policies have been seen as ways of preventing social and labor unrest and crime, of encouraging responsible working patterns, and in general encouraging the lower classes to behave more like the middle classes.

More explicit objectives include efforts to assure a minimum living standard to the "deserving poor"--those who for some reason cannot or should not work, usually children, the elderly, women with children, and the disabled. However, there are debates about the level of this standard, and benefit levels often seem to link the need for labor at a particular point in time. During the Great Depression, it was finally widely recognized that individuals or even industries could not be held fully responsible for their own welfare. The economy did not always function well enough for even the hardworking man to support a family. The Social Security Program was instituted in the mid 1930s, providing benefits to the unemployed and the retired and merging them with benefits to the "deserving" poor. The program, which still is the center of U.S. social policy, is a peculiar mixture of insurance and welfare concepts, reflecting our own ambivalence about individualism, opportunity, and the role of the State. Except for special categories, benefits are only paid to those who have contributed, as if the program were insurance, yet current workers are supporting those who are now retired. There is no means test, yet one's benefits are reduced if one is earning income. The idea is to maintain a notion that these benefits are to help one through temporary difficult periods, that benefits are earned, and that, in no way is receiving them a stigma. Some people are of course entirely without protection.

In the 1960s, however, poverty in America was discovered and became the center of policy attention and social science analysis. For many, particularly blacks, poverty was not temporary, but spanned several generations. Public housing, authorized in the Depression to help struggling young families get started, was now inhabited by second and third generation poor. Social policy took another dramatic shift to focus on those who were "disadvantaged," due to minority status, location in a poor area, or years of living in poverty. In the sixties most social policies, whether they were for education, jobs, or housing, were guided by concern for the "underclass." Now in the 1980s it appears that transfer payments have alleviated some of the worst income poverty and a new concern arises: whether we have created a dependent class. A more conservative Administration is cutting back on poverty programs and giving more attention to the middle-class and to the investment needs of big industry. The future of social policy in the U.S. is in question.

SOCIAL REPORTING IN THE UNITED STATES

Social reforms and social statistics in the U.S. were both born from the same concerns in the nineteenth century. Rapid industrialization, immigration, and urbanization had created new problems. Families and individuals lived in crowded, urban conditions without the support of neighbors and kinfolk, which they could depend on in smaller, more closely knit communities. Wages were often inadequate and employment unreliable. The newly grown cities were seen as harboring crime and disease and potentially dangerous masses. By the early twentieth century, labor unrest had become a major problem. The earliest social reform efforts focused on publicizing the living conditions of the poor; measuring the living wage and unemployment; and regulating housing conditions and occupancy. Statisticians in the U.S. and Europe began massive social surveys to shed light on these issues, and social science emerged as a profession, in part to attempt to improve social conditions with the aid of empirical investigation. The Bureau of Labor Statistics, today the most important statistical bureau in the U.S. after the Census Bureau, was set up in the nineteenth century to gather statistics on the laboring classes and report to Congress on such matters as needs for tariff protection or child labor laws. Its founder, Carroll Wright, was a social reformer who saw statistics as providing the problem definitions and political leverage that could assist change. In practice, however, he adopted a neutral political posture and established a tradition of technical expertise and neutrality.

These early investigations did much to heighten the awareness of the problems of the poor and the working classes, but they were almost entirely descriptive and without basis in theory or clear concepts of social problems. It was difficult to make sense of the masses of data or to use them clearly in policy. Indicators, in the formal sense of measures of some phenomenon, did not begin to emerge until sixty or seventy years ago, with research on the cost of living and unemployment. The Great Depression played an important role for statistics, because the development of survey and statistical methods was part of massive work relief programs, but undoubtedly would have been seen as inordinately expensive in another era. Government sought to learn about working conditions to set wages in the Depression. Also, until that time the federal government had involved itself in little active social policy, and accordingly, had little need for indicators.

The concept of social reporting in the sense of producing compendia of data or analyses of social conditions, however, has long had considerable appeal. In the early 1930s a conservative President commissioned the first major national social report, entitled Recent Social Trends, and various other compendia have appeared since then, sponsored by governmental and private organizations. It has most often been under conservative presidents that official efforts have been initiated, as they try to control government and rationalize its activities. The reports have been admired for their scholarly quality, but have had no discernible, direct consequences for policy. The volume of information was too great and the policy implications were unspecified.

Nonetheless, in the 1960s a resurgence of interest in social reporting crystallized among social science researchers, who saw that economic indicators were having a powerful impact on economic policy. They coined the term "social indicator" and hoped that regular, well publicized, quantitative social reports would help balance national policy, which seemed to be giving undue attention to economic growth at the expense of human needs. Public policy was far more likely to focus on problems that had been measured and publicized than on those that had not.

The task of social reporting, which was taken on, in turn, by various federal agencies, eventually moving to the Bureau of the Census, proved difficult. Agencies could not agree on a subset of essential indicators for inclusion. There was resistance to publishing any interpretation of the data, as it could have unwanted policy implications. The first report was several years in preparation, mainly because of low funding and political disagreements over content. The third report, recently released, has greatly improved in its coverage, its graphics and its methodological explanations. Nonetheless, the tables and graphs stand alone, and analyses have appeared only in separate, privately sponsored documents. While the reports have had wide circulation in libraries and schoools, they have not had much impact on policy makers.

One reason is that without a policy context for presentation, implications of the indicators are not obvious to most policy makers. A second reason is that the decision makers who do use data prefer their own sources to secondary compilations. Moreover, many more detailed data books are published on labor, housing, social security, health, minorities, and so on. The function of formal social indicator reports in the U.S. and many other industrialized nations has been primarily to educate the general public to make them aware of how statistics are related to social issues and to give a symbolic importance to these issues. While, presumably, the reports could be more useful if more policy-linked, this might undermine their technical credibility and guarantee that they would never be published. The process of selecting issues and concepts, designing indicators, and assuring their use is more complex than the simple idea embodied in social reporting.

HOUSING

One of the most visible and powerful uses of social indicators has been for housing policy. Social indicators became the embodiment of policy goals for decades and helped create a policy which, in some important sense, has worked. The problem, as defined by the indicators, has been largely solved. The indicators were not merely measures, but standards, however. They were based on moral judgments, theories, and conditions of an earlier time. Today it is increasingly clear that the theories were wrong and that the problems have changed. Other housing-related indicators begin to demand priority, though the old ones continue to guide programs.

Origins of Housing Standards

Although comprehensive data on housing characteristics were not collected in the U.S. until the mid-1930s, the origin of housing standards and indicators dates to the mid nineteenth century. During the rapid industrialization and massive migration from Europe, there was explosive growth in cities, and new types of multifamily housing were constructed--tenements, which were often shoddy and poorly designed. Moreover, they were shockingly overcrowded, with counts of 20 or 30 to a room in some cities. A high level of contagious disease in the cities was associated, in the minds of many, with housing quality, as disease transmission processes were not yet understood. The earliest housing policies were motivated by a combination of social reform and self-interest of the wealthy. A fear of the spread of cholera led to the first tenement reform law in New York City in the 1860s. Public health concerns were to be intimately linked thereafter to housing indicators. They are used as a justification for housing standards and building codes even today, and the American Public Health Association has had primary responsibility for preparing such codes.

This health focus has helped obscure the underlying issues of morality and social control. Crowding, for example, was viewed as a moral evil, as young children would be exposed to adult sexual relationships and in the close quarters would be unable to develop proper respect and admiration for parents as role models. They would be driven into the streets and socialized by relationships with peers, instead of under the control of a strong family structure. Crowding was seen as a threat to the social fabric.

The indicators that were to become significant were primarily two: the number of substandard units, defined in terms of both absence of full plumbing and presence of physical deterioration and the number of overcrowded housing units, that is, units with more than one person per room. Eliminating such units was to become the national goal. The Depression work relief agency (WPA) conducted the first major study of housing conditions, establishing concepts and techniques which would be the basis for the Census efforts, which began in 1940. Measuring the quality of individual units required subjective judgments of the enumerators, and two decades later, when social resarch methods had become more sophisticated, a follow-up census study showed housing quality indices were highly unreliable. By that time, however, many public agencies depended on these indicators, and simply estimated substandard housing units when they were no longer officially counted.

U.S. Housing Policy

Housing policies in the U.S. before the late 1930s were pretty much confined to local housing ordinances, wartime housing construction, and some postwar assistance to homeowners. However, in the Depression, massive unemployment and mortgage defaults made it clear that the economic system would not protect housing for even the middle classes. Moreover, many central cities had begun a trend of decline, as much of the population moved to suburbs. While unsightly, deteriorating neighborhoods had always existed, now the economic base of the cities was slipping away. Therefore a coalition of interests formed for slum clearance and the construction of public housing to serve the part of the population which could not afford housing at market prices.

Public housing was instituted in the late 1930s and urban renewal began with the Housing Act of 1949, from which time the federal goverment's commitment to active housing policies increased. The Act provided for assistance to local governments for the clearance of slums and the resale of land to developers to renew the inner city. Policies have evolved considerably since 1949, as public opinion has turned against massive clearance, and large concentrations of publicly built housing, which harbor many social pathologies. The approach to housing renewal today involves a variety of subsidies to small-scale projects and to individuals directly.

The important role of housing indicators in defining the policy problem and providing a symbolic rallying point for the proponents of housing is unparalleled in other areas of U.S. social policy. One principal explanation is that those involved in housing reform saw themselves as planners whose approach to public policy involved goal-setting, analysis, and deliberate strategy choice, while those involved in other policy areas, such as health, had a very different mindset. Housing advocates posed the problems to Congress and the public as meeting defined housing needs, and they presented data on the numbers of substandard and overcrowded housing units to back up their arguments. The indicators were respected and matched closely popular values about housing goals, so they were generally accepted in the decision process. Later, two presidential commissions analyzed and defined the nation's housing problems using these indicators.

The concepts and standards embodied in the measures were then to become institutionalized in programs. Public housing, for example, had to meet all basic physical quality standards, and units had to be matched to family size. (The rule had the side effect of excluding large families from this benefit.) For areas to be declared suitable for clearance, data had to demonstrate that a sizable percentage of housing was physically substandard by official definitions. Current housing legislation mandates that communities prepare a Housing Assistance Plan (HAP), enumerating the characteristics of local housing stock and its occupancy level. Federal funding is only provided for housing subsidies which the indicators show are needed. Another program provides rent subsidies to poor families in standard housing only. Parallel concepts to the indicators are embodied in local building codes throughout the nation, assuring that new and rehabilitated housing meets at least these standards. Though there are inconsistencies between the codes and the indicators, there is also a close conceptual link.

The Future of the Housing Indicators

But this apparent success story cannot end here. Social conditions have changed and our understanding of problems has evolved. We are so long accustomed to speaking of housing policy in the language of the indicators, focusing on physical substandardness and crowding, that it is difficult now to alter our perceptions and policy goals. The problem is compounded because as the indicator concepts have become institutionalized in legislation and in state and local regulations. A machine is at work producing and subsidizing standard housing.

After millions of dollars worth of research, no one has yet demonstrated the existence of most of the presumed relationships between housing quality and human behavior or physical and mental health. While the availability of sanitation does have a demonstrable relationship to health, as does extreme overcrowding, most of the measured physical characteristics of housing seem to have little to do with satisfaction or behavior. The reality seems to be that Americans decided that people ought to have "decent housing," and we attempted to justify this view by "scientific" discussions of health. It was implicitly presumed that physically good housing would make the poor behave rather like the middle class. The indicators became the symbol for this as well as for humanitarian objectives, though perhaps on both counts the assumptions were wrong. More critical factors may be in cost of housing and the quality of the neighborhood. Yet the indicators have called attention away from these issues and encouraged the provision of housing without any consideration of neighborhood amenities, social mix, or cost.

As the 1980s begins, we have come close to achieving our housing goals, at least as defined by the traditional indicators. Few urban housing units are without full plumbing today, and while some dilapidated housing still exists, the problem is no longer of the scale it was in the 1930s and even 1960s. The housing problem today takes a different shape. Rapid inflation and the increase of two-career families that can afford more expensive housing have contributed to an escalation of housing prices that far outstrips wage increases. No longer can the young single-wage earner family, which U.S. social policy has attempted to protect over the years, now ordinarily purchase a house. The median cost of buying a home, at today's interest rates, requires a family income close to double the national median. Suddenly two different housing indicators are gaining in importance--the home ownership percentage and the affordability of housing--a ratio of housing cost to family income.

Both of these concepts also have a long history in the U.S. Ownership of a single family home on its own piece of land has for decades been the American dream and, until recently, a growing percentage of the population was able to achieve this. The goal has deep cultural roots and social control objectives, dating back to the American Revolution. The ideal was a nation of yeoman farmers, where each family would live on its own plot of land, doing subsistence farming. Such independent families would provide the backbone of a basically rural democracy, and form its solid citizenry. While the image has long since been buried under the reality that we are an urban nation, the symbolism is still powerful, that home ownership makes good citizens. Public policy has encouraged people to buy homes through federally sponsored mortgage programs and tax deductions for mortgage interest--deductions unavailable to renters. Such policies were explicitly viewed in the 1920s as ways of quieting labor unrest and bringing the American worker into the capitalist system, making him feel he had a stake in society.

The notion that there is an appropriate percentage of income to spend on housing also has a considerable history. For several decades a rule of thumb has been applied in housing programs and by mortgage lenders that a family canot afford to pay over 25% of its income for housing. This percentage has increased in recent years, but the figure is based on average practice and relative prices of housing compared to other goods. The criterion was used to set minimum incomes for public housing eligibility and to plan the size of federal subsidies for housing. The concept had much to do with the Housing Allowance plan, known as Section 8, which provides income supplements for poor families to a point where the cost of standard housing will be an appropriate percentage of income. Notably in Housing Allowance experiments, many chose to spend income on other things, rather than upgrading their housing to meet minimum official standards.

Housing policy analysts today are increasingly arguing that the old indicators are no longer appropriate. The theories and data gathering methods have been discredited, and most people now live in standard housing. The trouble is many of them cannot afford it. There are some who argue that many people would prefer more crowded housing if it were cheaper and that perhaps building codes should be relaxed. Standards do have to be changed if they are to continue to be useful over time. Such a change, however, will be difficult as long as the traditional housing indicators continue to be the focus of policies and programs.

POVERTY AND LIVING STANDARDS

Problems in Measuring Poverty

By far the most widely used social indicators in the United States are poverty lines and Standard Budgets, which measure the costs of various levels of living. We could have passed little of our social legislation and administered few social programs without these measures. No consensus has ever been established, however, on a single set of indicators, as it has for housing and unemployment. But this failure is not due to lack of effort. Endless analyses, surveys, articles, and books have been devoted to exploring the pros and cons of various poverty measures, and a high level government task force met for several years in an effort to improve them. All this group produced was a compendium of measures in use and studies of the substantial effects of different poverty definitions on the size and composition of the poverty population.

While political implications of the choice are largely responsible for the failure officially to select one definition, a second reason is the lack of theoretical basis on which to make the selection. The housing and unemployment measures were linked to some theory about social process, albeit in the case of housing, an incorrect one, and in the case of unemployment, a partial one. This theory defined what the relationship was between the indicators and a social problem in the case of housing; and between the indicator and a set of remedial policies in the case of unemployment.

The problem is not that there are no theories about the causes and effects of poverty, but rather, that there are too many. Some claim poverty is merely a condition of inadequate income for health, and the poverty line would be a fixed figure based on the cost of necessities for any given family type. Others claim poverty is a condition of relative deprivation--that people may be poor if their incomes are substantially lower than the rest of the population because opportunities are not open to them. This view depends on another theory of society and individual behavior as well as a different value system. In this view poverty might be some percentage of the median income. Others consider poverty to be culturally determined so that even with more income, people might continue to behave like the poor. The poor, in this view, are defined by their levels of ambition, ability to make future-oriented choices, and to develop a sense of social responsibility. They are encouraged to remain so by social norms in their peer groups. The most impoverished college student would not qualify as poor. The first concept of poverty calls for minimal subsistence income or food supplements to anyone meeting income conditions; the second implies massive income redistribution and places the poverty threshold much higher. The third concept calls for indicators of social disorganization, and it is associated with policies to break up concentrations of poverty or to resocialize the poor through social work or intensive reeducation.

Even with agreement on theories, dozens of conceptual and practical problems have to be settled. Is poverty to be measured by wages and salaries alone or should government transfer payments, income-in-kind, and wealth, such as a car or home ownership, be included? The answer clearly is yes, if well-being is to be measured accurately . Yet to count and assign values to some of these items is a problem which, so far, defies solution. In the U.S. we have settled on simply counting cash income of all kinds and ignoring other resources. Even when one tries simply to evaluate the adequacy of income, a problem arises, as a household of three does not require three times the income of a household of one to achieve a comparable level of living. Finally the selection of the poverty level is itself something of an arbitrary exercise as no one has found an objective criterion to define a cutoff.

Each of these measurement decisions entails substantial policy implications. The selection of scales and the cutoff level can radically change, not only the number of poor we perceive to exist, but also the composition of the poor in terms of such things as age, family type, and race. Accordingly, the indicator will have substantial impact on the design of anti-poverty efforts. By the same token, if wealth were counted, the percentage of poor who are elderly would drop relative to the percentage of young families. Including government transfers will place some welfare recipients above poverty lines, and others who do not qualify may be seen as relatively poorer. Probably, a single poverty criterion neither can nor should be developed because the policy purposes call for varied information. Those who need food supplements will be far poorer than those who need assistance with housing payments. Assessments of wage adequacy require different criteria than setting of family assistance payments.

Standard Budgets

The concepts and methods for poverty and living level indicators originated in nineteenth century studies of the living conditions of wage earners, done for a variety of legislative purposes. These led to the development of the Standard Budget, a list of goods and services deemed to represent a norm for a family during a year. Prices could be obtained for these items to provide a standard against which to assess a family's income or set benefit levels. Various budgets were produced, beginning in 1911, by government, labor and business research organizations, and charities. There was no effort to identify the subsistence level, except briefly during the Depression, because the standard was designed to be respectable rather than punitive. The first official BLS budget was called the "Health and Decency Budget."

While budget amounts were related to typical consumption patterns, they represented a social norm rather than an average. For many years budget data were only collected for the working-class family of two parents and children, which represented an ideal family type the government was trying to protect. Components of the budget were chosen by a combination of criteria simultaneously. Food items, for example, were designed to provide adequate nutrition, but at lowest cost commensurate with tastes, and clothing quantities were the minimum consistent with cleanliness, warmth, self respect, and so on. Data from actual practices were used, but only as one element. The product, though it has been greatly refined over time, remains an ambiguous mixture of average behavior, scientifically based needs, and societal norms. (See my more extended analysis, 1975.)

During the Depression, a massive survey of three quarters of a million people was done to design new budgets suitable to setting pay scales for the millions of workers on government relief. While consumption surveys do require large samples because of the extensive detail, this one was oversize, as the methods of stratified sampling had not been developed. Today consumption surveys are done every decade or so and budgets are repriced annually, as prices change considerably faster than buying habits. In the last few decades, budgets have been developed for three levels of living and for retired couples; urban and rural differentials are identified; and equivalence scales have been developed for various family sizes.

The budgets have seldom been effectively used in policy making. Congressmen have been unwilling to accept these measures because they are not sure what they mean. But the indicators have many roles in the administrative process. When the economy has been centrally controlled in war or economic crisis, budgets have been used to set wages or determine when they are substandard. They are used to establish benefit levels, eligibility and sliding fee scales for public and private social services and for college scholarships. Unions use them to make the case that wages are too low. The lowest level budget is used as a comparison with other poverty measures as a kind of validity test. Budgets provide the only way to compare living costs across cities or regions, particularly as they can be adjusted for different climates. These comparative costs receive widespread press attention and affect migration decisions of individuals and businesses.

The standard budgets have tremendous impact in terms of the allocations of resources among individuals and groups. The conceptual inadequacies prevent them from playing a policy role, but the administrative purposes they serve are less visible and require less political consensus or conceptual clarity. They meet the administrative need for a criterion for even-handed decisions. The budget has kept abreast of changing times, meshing, in practice, with changing social behavior and expectations, and accordingly has, at least, served administrative purposes well.

Poverty Thresholds

For many reasons a poverty line has been necessary--to count the poor, to determine who are the poorest people and to allocate funds to areas with concentrations of needy. While there has been social science interest in defining a poverty line for generations, the first major official discussion of the concept was in 1964, at the outset of the Poverty Program. At that time, the Council of Economic Advisors reported on poverty in the

U.S., using the simple criterion of an annual family income of $3,000 for a family of two or more, as the numbers could be easily assembled on this basis. They selected an income near half the median, but it was treated as an absolute threshold rather than a relative one.

The Social Security Administration developed a measure which soon replaced this in the discussions of poverty policy. It was based on three times the cost of a minimum diet for a given family size. Official diet plans were readily available and could be priced. This measure probably gave a better approximation to comparable welfare levels, and it included more children and fewer elderly among the poor. It was reasonably satisfactory until some years later, when poverty groups began to complain that the measure was too low. Approximately at the same time, private opinion polls showed that the line no longer corresponded to the popular conception of the minimum necessary income. On further investigation it became clear that, though the threshold had been updated by the Consumer Price Index, it was lagging because the relative price of food had declined. The public does have intuitive ways of judging the adequacy of an indicator.

In 1969 the Census Bureau began publishing data on the poverty population for the first time. President Nixon, then in the midst of dismantling the Poverty Program, found these reports an embarassment and succeeded, temporarily, in changing the label to "low income population." Poverty measurement persisted, however, because poverty threshold criteria were incorporated in volumes of social legislation. Education, health, and housing funds were allocated to areas in great part on the basis of the size of their poverty population, and portions of the programs were targeted to people who fit under poverty definitions. The measures applied varied according to purpose, necessity for ease of measurement, and simply arbitrarily. A relative poverty measure has, in this process, become more accepted. Some poverty thresholds are simply 80% of the median income and others follow complex tables for urban and rural family types and sizes. Alleviation of poverty was the central focus of social policy during the 1960s, and accordingly poverty measures were pervasive in the program designs of the 1970s.

Indicators for the Eighties?

Poverty lines and standard budgets are well insitutionalized today. Level of living indicators have provided criteria to upgrade in a relatively equitable way the resources available to the poor, but they have done little to further our understanding of the causes and consequences of poverty. The theories of the sixties have so far not been borne out--that poverty can be decreased by changing institutions or by compensatory efforts. New analyses suggest that there may be very few of the permanently poor, who were so much the focus of policy attention a decade ago, but there may be a much larger percentage of the population than recognized previously who fall into poverty at some point in their lives. On the other hand, if one counts transfer income, a major part of the poverty problem has now been solved.

These observations raise serious questions about poverty measures for the future. The line itself is arbitrary. There is no dramatic difference in welfare between those who live just above or below it. Perhaps we should identify a wide poverty band, or a group of "near-poor." Perhaps poverty should not be measured as a snapshot of the population at a point in time, but as an income path of families over time. And perhaps, in solving the problem of poverty through government payments, we have created a new problem of dependency. Accordingly, an indicator which includes such payments lulls us into a false sense of security. The answer is, in part, to interpret poverty in relation to other measures, such as dependency rates by family types or crime or mental illness among the poor. The budgets and poverty norms have been useful, but the next step is to develop more conceptually clear indicators that will link to theories and help us to learn as we move through the next decade.

UNEMPLOYMENT

If one counts success in terms of the magnitude and immediacy of impact and correspondence to policy questions and social science theories, then the most successful U.S. social indicator has undoubtedly been the unemployment rate. In many ways it is a model for policy-oriented social indicators . Its methods of data collection and analysis are among the most technically sophisticated and widely respected that have been developed by social scientists; its concepts are clear enough and sufficiently grounded in theory for it to be used for economists' predictions about the impacts of economic policies; it has been widely accepted by industry, labor, government, and the public as the measure of unemployment; figures are widely reported and analyzed in the press; and public officials have to respond and often alter policies when the indicator shows an unacceptable rate. Few indicators in the U.S., or anywhere, have achieved this degree of success.

Yet the indicator also has limitations, some of which are, in part, a product of its success. For it to be so effective, it had to be institutionalized and protected from manipulation. Today, however, critics argue that the measure does not capture the unemployment problem--that it fails to measure the underemployed, the underpaid, and those too discouraged to look for work. Because of its design it has been more useful for the development of economic than social policies. Whatever its limitations, however, it has had the effect of directing more public action toward unemployment than would otherwise have been likely.

Origin and Development of the Unemployment Indicator

The story of the origin, development, evolution, and use of the unemployment indicator is one I have described elsewhere (de Neufville, 1975) but which I wll briefly recount here. The onset of major urbanization and industrialization in the U.S. was accompanied by sporadic and cyclical unemployment of those in the new labor force. During this period, however, unemployment was not seen as an issue for public policy, and few serious efforts were made to measure it until the Great Depression. "Social Darwinism" strongly influenced social policy in this early period. In this view those who did not support themselves would quite justifiably have to suffer, as they were undoubtedly unworthy. Workhouses and local and voluntary charitable institutions took care of the obviously poor and helpless. It was only after twenty or thirty years during which bitter efforts to unionize major industries raised the sense of solidarity of labor, and after a series of recurrent recessions, that finally government began to take official recognition of unemployment as a national problem. In 1921, President Harding convened a conference of business leaders to discuss unemployment, to find out how much employment was needed. While no concrete policies emerged, the conference established that there was a need for an indicator.

The conference could not agree on who to count as unemployed--and, in any case, no one had any reasonable data. The estimates ranged from 3.7 million to 5.7 million, and in the end the group decided the number of unemployed by vote! Participants agreed that the federal government should take the responsibility for gathering unemployment statistics, but were divided on whether it had further responsibility. The potential uses, and therefore the definitions, for unemployment indicators remained unclear. An effort was made in the 1930 census to measure unemployment, which was quickly discredited, partly because the concept of counting only those with previous employment was unacceptable, and partly because the number of the total population was used as the denominator, rather than the labor force, so the rate appeared unduly small. Unfortunately, it would be several years more before a concept of the labor force could be developed.

Once the Depression hit, it became clear that many causes of unemployment were imbedded in the national economy. As Congress and the President began to debate policies to deal with unemployment, mainly work relief and insurance, the demand for an adequate measure of the unemployment problem increased. The press debated the numbers and made fun of the government's abortive efforts to measure unemployment, such as a postal survey in 1937, which was clearly biased. Business and labor each offered their own self-serving figures. Disputes raged over which unemployed should get most policy attention, and a consensus began to emerge.

It seems to be a rule of social indicators in the United States that a well designed, pertinent indicator will not be produced until there is at least a preliminary policy commitment to the problem and some partial consensus on the nature of the problem. This is necessary both to assure that funding will be available to collect and manipulate data and, most importantly, to resolve disputes over definitions. Policy makers are not naive about how statistics can shape perceptions of the scale and nature of problems, and they will not use indicators that do not mesh with their understandings.

The current unemployment indicator was first collected by the WPA in 1939 and then became part of the 1940 Census. Thereafter it was gathered several times a year in a sample survey known today as the Current Population Survey (CPS), now the largest monthly survey conducted by the federal government. The unemployment rate was defined as the number of people totally without work but actively seeking it, given as a percentage of the labor force--total working and unemployed. There were marginal categories which created problems--fourteen- to sixteen-year-olds, unpaid family workers, volunteers, students, and those temporarily laid off--but decisions were made which, with minor variations, persist to the present. The decisions were in part responses to political constituencies, in part based on conceptual consistency, and in part simply arbitrary, but they came to represent a consensus on whom we would count as unemployed.

The consensus came about for several reasons. The CPS counted only unemployment which effectively put pressure on the labor market, and not hidden unemployment. It was a measure of labor supply and, as such, it fit neatly into the theories of the Keynesian school of economists, who analyzed the economy in terms of aggregate supply and demand. The unemployment rate was to become one of the select few variables econometricians used in models of the U.S. economy in the 1960s, and the indicator played a role in such precedent-breaking policies as President Kennedy's tax cut to revitalize the economy. In addition, the concept matched contemporary values and understanding of behavior. In the Depression, so few had work that underemployment was not the issue, and it was reasonable to count only those who searched for work.

Institutionalization and Applications of the Indicator

The most important factor in the institutionalization of the unemployment rate was the Employment Act of 1946, which established a federal responsibility for employment and required the President to report annually on employment conditions, forecasting the future and outlining proposed policies to deal with problems. The employment indicator was already in place, and it became a natural focus of attention in this report. The Act also set up a Presidential Council of Economic Advisors to help with analyses and policy design, and stipulated that it be made up of qualified economists A Congressional Joint Economic Committee had oversight over economic policy. This combination of institutional arrangements assured that economic policy would be designed with the aid of research, advanced analytic techniques, and indicators. As most of the real work in Congress is done by committees, and this one was headed for some time by a senator who had been an economics professor, the Committee and its staff could effectively understand the indicator.

The unemployment indicator was to have many uses in public policy and research among members of business, labor, government, and the academic community. It was associated empirically with inflation, in a relationship known as the Phillips curve, which posited that a certain amount of inflation had to be traded off to achieve any reduction in unemployment. This empirically observed correlation had no theoretical base and, not surprisingly, has turned out not to hold true; but in the meantime it had considerable policy impact, indicating when monetary or fiscal measures should be taken to strengthen the economy. A related measure, based on insured unemployment, was used to allocate federal economic funds to needy areas.

Several times the methods and concepts of the unemployment index were challenged by political opponents of various policies--most notably in 1961, when the election of a liberal president foreshadowed policies to aid the unemployed and increase government spending. An attack on the indicator was published in the Reader's Digest, claiming the indicator had been manipulated by the Administration and implying it overstated unemployment. The challenge was significant enough that Congressional hearings were called and a Presidential Commission was established to look into the question. It was at this point that the years of careful methodological development, the well-planned political strategies, and the strong institutional base were to be important. The investigations repudiated all the criticisms and resulted in even stronger and wider spread support for the indicator.

The measure was the responsibility of the Bureau of Labor Statistics (BLS), which, jointly with the Census Bureau, gathered, analyzed, and reported the data. This agency, nominally under the Department of Labor, is semiautonomous in its operations, reporting directly to Congress. Since its inception a century ago, it established a tradition of disinterested and professional statistical analyses, operating as a technical agency with no responsibility for programs. Staff statisticians were encouraged to maintain their professional standing through publication and attendance at professional meetings. The Bureau itself published papers and a journal dealing with methods and data problems. The Bureau's work has often set the pace for statistical practice generally.

The agency held regular user workshops where members of labor and business organizations learned about the indicator's methods and meanings and registered their needs for data, or problems with the indicator. When methods and concepts were in question, as they were several times before 1961, the Bureau called in outside experts to evaluate their work or used an interagency task force to make decisions on needed changes. For example, in the 1950s a major discrepancy between unemployment estimates as derived from the Census and from the CPS led some to suspect the latter was inaccurate. A task force examined the problem and found that, on the contrary, the Census was inaccurate. Until that time few recognized that carefully done surveys could produce a more representative picture than the most complete census that could feasibly be achieved. Finally, the Bureau held regular news conferences to report on the latest levels of unemployment and to provide background information on the methods and implications of the indicator, so the general public was also familiar with the measure.

Therefore when the indicator was attacked, business, labor and economists came to its defense. They understood it and had agreed to its concepts. They used it and depended on it. It was clear that no one could manipulate the unemployment indicator for political purposes. The measures represented a social and political agreement, not easily undone. Ten years later, when President Nixon did not like the news the indicator was giving about unemployment, the best he could do was to reorganize the BLS and move the more outspoken statisticians to jobs where they would be less visible.

The Future of the Indicator

But this was not to be the happy ending. In the 1970s analysts were discovering that the unemployment problem was more complex than had been assumed and that macroeconomic fiscal and monetary policies were not, after all, having their predicted effects. The unemployment rate had served adequately, so long as the policy was one of balancing off inflation and unemployment, and so long as unemployment was seen as caused mainly by the overall ill-health of the economy. It had never been particularly helpful for dealing with unemployment due to inappropriate training or to the loss of jobs in a region. It did not provide the necessary breakdown of types or locations of unemployed. Yet manpower training and efforts to attract industry into declining areas were major components of U.S. employment policy throughout the 1960s and 1970s. The reality, however, was and still is that the United States does not have a manpower policy in the sense of a strategy to prepare people for available jobs in growing industries. Without planning of this sort, there would be little use for a manpower indicator of unemployment.

As analysts develop more elaborate theories about the nature and causes of unemployment, dealing with, for example, the dual labor market or the changing role of women, and as we observe phenomena like the simultaneous increase of employment and unemployment, it is clear we have not measured the labor force adequately. New questions have been added to the CPS to identify new categories, such as the underemployed and the underpaid.

Congress in the late 1970s convened a commission to reexamine the usefulness and relevance of the indicator. The group reviewed all the arguments for changing the official measure, but finally argued for keeping it more or less as it was, partially in the interests of statistical continuity, and partially because many theoretical issues remained unresolved. It recognized that there were many uses and needs for unemployment measures and that one indicator could not serve them all.

In time an additional measure will undoubtedly be developed to represent another view of unemployment. But the process is ponderously slow—perhaps necessarily so. If an indicator is to be used in policy, it requires wide understanding and consensus. It requires correspondence to the policy process. A new indicator can, to some extent, lead that process by calling attention to problems. More often, the discussion over the indicator brings to the fore latent policy questions and theories. The exercise is useful, but it delays the production of the indicator. Deciding how to measure something requires that one drop the ambiguity with which many policy initiatives are enveloped. It also may permit the exploration and application of new ideas.

This powerful, well-developed unemployment indicator poses a dilemma. It may have been an ideal concept in the 1940s, but it is far less ideal in the 1980s. Tremendous effort, however, has gone into protecting the measure from casual or politically motivated change. Moreover, policy makers and analysts have come to think of unemployment largely as what the indicator measures. The measure is incorporated into theories, models, and policies. It is used to trigger benefits and programs around the country, and it is part of federal allocation formulas. When an indicator has become part of the mindset we apply to problems and plays an important allocative role, any effort to change it is in some deep sense political. Costs and benefits would be redistributed, and analysts would have to give up their theories. Nonetheless, indicators must be changed if they are to remain relevant, because times, understandings, and objectives change.

CRIME

A national crime index has been reported annually in the U.S. since the early 1930's, as part of the Uniform Crime Reports (UCR) of the Department of Justice. The index which is available by city and state, receives widespread press attention, and public awareness of it is high. There is little evidence, however, to suggest that the measure has played any genuine role in policy making about crime prevention, other than to help create generalized public anxiety. When the crime rate rises, local police departments may claim they need more funds, or may be blamed by local public officials. The index is invoked equally to support both harsher penalties for criminals and better rehabilitation methods, and to argue that the causes of crime are unemployment, drugs, or a declining moral standard. The index has been used, however, to allocate funds for the federal Law Enforcement Assistance Act, which provided support to local police departments.

The index has not helped us to understand the causes or characteristics of rising crime, nor to set policy goals or design anticrime programs. It is even questionable whether it is a good measure of the prevalence of crime. Social science researchers make little use of the index, though they have made ample use of poverty, housing, and unemployment measures. Some of the most insightful and important research on social measurement issues has been done in relation to crime, but unfortunately, these studies have little influenced the FBI, which produces the index. As it is, the crime rate is an entirely atheoretical, ad hoc, and ambiguous measure. It is an aggregated measure, representing, no well-defined phenomenon, and, accordingly, has little value in policy making or research. It does not offer information about locations or times of crimes, offenders or victims, so it is of little value to the planning of local crime prevention strategies.

Origins of the Index

The indicator was instituted when J. Edgar Hoover, the powerful head of the Federal Bureau of Investigation for many decades, acted to tighten up law-enforcement practice in the country. As police departments in the United States had a strong tradition of local and state control, he had to use indirect means. The FBI could serve as an information source for local police departments, so it was reasonable to establish a system of Uniform Crime Reporting (UCR). The FBI then took these reported crimes around the country and created an index.

The FBI was not a statistical bureau, so, not surprisingly, the conceptual basis and methods of the index were poorly developed. First, only well-reported categories of crime were included, introducing a major bias. White-collar crime, drugs, and rape were excluded, for example, and burglary comprises a substantial part of the total. No weighting system was applied, and each crime counted equally--the theft of a handbag counted for as much as a murder. Little thought was given to the population base for the denominator of the index, and, for some years, old population figures were used as the denominator with new crime figures in the numerator. This produced an inflated picture of crime rates as populations grew. No one knew how much or what type of crime was left out of the index, not only because of the selection bias, but also because many crimes never came to the attention of the police. Moreover, crime reporting varies with the standards of local communities and changes over time with expectations about police response. Inflation raised the index level, as more and more minor thefts began to cross the monetary threshold that classified them as grand larceny. While the development of a separate measure of serious crime helped somewhat, because of weighting limitations and selection biases, the problem remained.

The list of problems is much longer, but this should provide the general picture. The FBI had neither the incentive nor the expertise to make the index analytically useful. It served its purpose if it called public attention to crime and helped assure support for law enforcement. If it overestimated crime, so much the better. This case provides an excellent example of why agencies with operating responsibility should not produce and disseminate social indicators. It also helps clarify why an indicator has to be based in some kind of theory, even if it is later discredited, as was the theory relating housing quality to behavior and satisfaction. The theory provides a guide as to what to measure and how to react to changes in the measure. The use of the indicator helps to demonstrate when the theory is incorrect. A measure without theory has no interpretation and advances no knowledge. Inappropriate policies are at least as likely to be pursued, but the indicator will shed no light on their effectiveness.

The Future of Crime Indices

Recent efforts to develop improved crime indicators, however, suggest that the task will be a difficult one. A presidential crime commission in the late 60's sponsored some experimental surveys to measure crime by identifying victims in the population. These seemed likely to eliminate the biases in the UCR crime index due to differential reporting of various crimes to police, and to give a truer picture of the actual prevalence of crime than police reports do. In 1972, a National Crime Panel Study was instituted, involving a sample of several thousand households and businesses, interviewed in subsamples monthly. In addition, samples were interviewed in many major cities so data would be available not only by nation and groupings of metropolitan areas by size, but also for some individual cities. These data were particularly critical, as crime control is a local function. The studies have been jointly conducted by the Census Bureau and the Department of Justice, and this arrangement should help assure that methods will meed high standards, and content will be relevant to law enforcement. Preliminary findings confirmed that police statistics underestimated many crimes, producing a rate less than half of that obtained in the Crime Panel.

But continuing analyses of the early results show many peculiarities (Martin, 1981). Assault rates in victim surveys are over three times UCR estimates, but cities with high UCR assault rates show low rates in the victim surveys, and the two measures are negatively correlated. Follow-up studies show that victims reported different types of crime at different rates, and that the rates varied by city. Finally, victimization doubled over one year in one city. Such patterns are unlikely to reflect variations in true crime; they more likely reflect local perceptions and fear of crime, and the difficulty of reaching a cross-section of respondents, which varies depending on the prevalence of transients in a locality. Clearly we have much more to learn about how to define and measure crime in an accurate and useful way, but now we have made a start.

EDUCATION

Social indicators have been important for education policy, but they have not been indicators of educational quality, content, or effectiveness. They are not indicators of whether the population is educated; rather, they have to do with issues for which education has been presumed to be a solution--poverty and racial discrimination. Poverty indicators have been used to allocate funds to the poorest schools and children and indicators of racial balance have been widely used to determine when school systems should be obligated to desegregate.

Indicators do exist which reflect on the level of capability of students or the effectiveness of schools, such as test scores, dropout rates, average years of school completed in the population. Some of the most sophisticated work in measurement has been conducted by educational psychologists. The federal Office of Education is empowered to gather and disseminate statistics, and a National Assessment of Education has been in progress for several years. Yet such indicators have virtually no application at the national level, and only sporadic use at local and state levels. Test scores of students in local school systems are often publicized and influence parents' decisions about where to live, and local school systems use these scores to demonstrate either their effectiveness or their need for additional resources. A State of California program allocates school improvement funds in part on the basis of test scores, controlled for the class background of the student body--thus rewarding schools which produce high achievement, despite deprived student backgrounds. Such applications are rarities, however.

Educational Policy

Foremost among the the explanations for this situation is the fact that the content and direction, as well as the funding, of education in the U.S. has come primarily from local government, and local control over education is an emotionally held value. To use educational quality indicators in national policy would be a major first step in exerting federal control over the content of school curricula.

In the early 1960s, schools were desperately in need of assistance to deal with expanding school populations, and in 1965 the Elementary and Secondary Education Act was passed. It is still the center of federal education policy, and it was central to the Poverty Program. It was based on two sets of theories and political value judgments. First, the poor concentrate in certain areas, so it is reasonable to redistribute federal revenues to those communities with least resources and most problems. Second, education was seen as closely linked to employment, and investments in education were expected to pay off in terms of economic growth. Investments directed toward the poorest--referred to in the legislation as the "educationally deprived"--were likely to pay off most. Children from such backgrounds had more difficulty in school and, since education seemed the most likely way out of the trapping condition of poverty, compensatory efforts for these children were seen as the answer. Federal education funds were allocated to areas where the indicators showed high percentages of poverty and to programs designed by local schools for the disadvantaged. While the legislation would clearly alter the priorities and directions of local curricula and educational planning, there was no explicit agenda having to do with content or style of education. While some in Congress argue that educational needs should be used as policy criteria rather than poverty, the policy remains basically unchanged.

Civil Rights in Education

The other area of federal intervention in education has been in civil rights, where indicators typically play a critical role in flagging problems and enforcing compliance. The process began in the Supreme Court decision of 1954, Brown vs. Board of Education, where separate education for blacks was deemed not to be equal, and thus legally mandated school segregation was declared unconstitutional. The decision was based in part on the research of social scientists, which found that segregation was damaging to the self-image of blacks. The tradition had begun that much policy would be established through the courts' interpretation of the Constitution, rather than through the legislative process. Social scientists would do intensive research on the effects of segregation on educational outcomes for blacks and whites, largely in the effort to influence policy.

The decision at first affected schools in the South, but it expanded in its implications during the years of implementation. Changes from legal separation of races to free choice enrollment had little effect on racial patterns, and gradually the courts sought criteria to determine if segregation existed. Intent to segregate could seldom be proven, so indicators became important. Two decisions in Washington, D.C. (Hobson vs. Hansen) declared that segregation resulted in the provision of unequal resources for children of different races and should therefore be alleviated through redistricting and busing. This decision helped open up the Northern and Eastern city schools to charges of *de facto* segregation, as their neighborhoods were segregated and, accordingly, their school districts. Courts increasingly used measures of racial balance as criteria. These measures varied, but usually consisted of the percentage of blacks in a school in comparison to the percentage in the rest of the school system, or in the community at large. Selecting a threshold point was particularly problematic, as it always is when one seeks a simple criterion to solve a complex, theoretical and political problem. Some chose forty percent black as a tipping point, after which white flight from schools was expected to occur. The state of Massachusetts passed a law arbitrarily declaring imbalance to exist when a school was over 50% black. While judges avoided using the indicators as decisive criteria, the figures and their interpretation by social scientists did play a role in their thinking.

Contemporaneously the Federal Office of Education was attempting to implement the Civil Rights Act of 1964, which stipulated that federal funds could not be given to programs which operated in a discriminatory manner. The Office had to establish objective criteria by which to assess the degree of compliance with the law, so they too had to rely on indicators.

These concerns led to the most controversial of all our social policies of the last decade---busing of children to assure school integration. Nondiscrimination as a value had come into conflict with the neighborhood school as an equally powerful value. Social science made a dubious contribution to this discussion and to the creation of a racial imbalance concept. A major study, authorized by Congress in the mid-1960s to determine the extent of the inequality of school resources available to blacks and whites, went on to conclude that, for blacks, educational achievement was improved by the presence of a majority of white children in the classroom. The methods of the study were deeply flawed, as many, including the author, later documented, but the conclusion had tremendous public impact and gave a logical, educational justification for those who believed in desegregation. It suggested that there was an ideal racial mix. But the study was cross-sectional, comparing the records of schools and the inputs to schools. It was not a study over time of students, of the educational groupings within schools, nor of schools after they had been desegregated. Blacks who did better in largely white schools may well have done so because they were of higher socioeconomic class. In short, the study revealed little of the dynamics of the education process. Today the evidence remains mixed over whether moving black children to white schools helps them educationally.

The Future for Indicators in Education

The theories on which past policies were built have been undermined. Improved education seems to help the middle classes more than the poor and the gap between the two groups often widens during school years, lending support to the radical view that schools do not open opportunity equally, but reinforce class structure. Moreover, problems of unemployment seem to lie more in the structure of the labor market and the family background of children than in the school system. In addition, considerable research has concluded that school inputs make little difference to outcomes, on the average, for social groups, while others claim that the averages hide many differences. Research, and accordingly the indicators, have done little do connect the content of curricula or the styles of education with such objectives as productivity, employability, satisfaction, or competence.

Major new directions in education policy seem imminent. There is discussion of moving to block grant funding to provide local school systems a freer hand in allocation of money. Other proposals include a voucher system in which payments from government direct to individuals will substitute for support of schools, and families can select the schools of their choice. Court decisions have begun to render local financing of schools unconstitutional. Meanwhile test scores of children are declining and no one knows why. New educational indicators and research could assist in finding the way out of these problems, but first we have to set goals for our educational system.

HEALTH

In U.S. health policy, social indicators are more notable for their absence than their application. This is particularly remarkable because of the long tradition in public health of epidemiological investigation and statistical analysis to determine the incidence, prevalence and causes of disease. Moreover, public-health professionals are at the forefront of social indicators reseach, and there has been no lack of statistical sources. Vital statistics have been available for the whole country for decades, a National Health Survey has been in operation since 1957, Health and Nutrition Examination surveys and, more recently, surveys and reporting on the utilization of health care facilities have provided information on illness and hospitalization in relation to demographic and socioeconomic characteristics. Seemingly the ingredients have been gathered for the application of indicators to policy.

Health Policy in the U.S.

Health policy in the U.S., however, bears little resemblance to the goal-oriented or problem-solving approach which has influenced many other policy areas. Some may argue that the reason is that no adequate measure of health status has yet been produced. Yet the data and the analytic efforts are no less adequate than for housing or poverty. Existing data could measure some parts of the problems so often cited in the rhetoric of health policy debates, such as differential access to health care for people in different economic classes and regions. Simple indicators could become standards or goals to aid in the meeting the most significant health needs. They could be used to help allocate funds for facility construction or to train and deploy medical personnel. Indicators could help diagnose the reasons for the most disturbing reality—that the United States is lagging behind many industrial nations on important indices of health status, while at the same time spending more per capita on health care. But such tasks would require a planning framework which seems not to exist in national health policy.

Health policy in the United States, briefly, has several components. Research into health problems is conducted and sponsored by the National Institutes of Health. A major program, known as Hill-Burton, has for several decades provided funds to states for hospital construction, on the basis of population and relative need as defined by per-capita income. Other programs provide assistance for health research and teaching facilities, and for construction of mental health centers. In addition, the federal government is involved in food and drug regulation and environmental health. There is little evidence that health indicators have played much role in any of these, with the possible exception of allocations to health research. For the purposes of this discussion, however, let me focus on two relatively new and important health policy initiatives which logically would seem to demand the use of social indicators in policy formulation or implementation.

The first of these is Medicare, a federally sponsored health insurance program, attached to the Social Security Progam and designed to deal with the costs of catastrophic illness for the elderly. It is the only federal health insurance program, and it is funded by taxing present-day workers. The rest of the population is either covered by private insurance through employers, or not covered at all. Health care in the past has been provided for the lower income groups through a combination of local public hospitals, free clinics and sliding fee scales for doctors, but with the escalating costs of health care, these methods no longer meet the problem. Even middle-income families have difficulty paying the costs of major illness.

In such a situation an approach based on social indicators might have allocated resources to the poorest, or those with least access to health care, or to health care problems that are most costly. Instead the elderly were selected as group to be the beneficiaries of the policy, in part because they are a population particularly at risk for catastrophic illness and on the average they have lower incomes than others. Primarily, however, the elderly were the most politically acceptable group to begin a highly controversial program. Many feared such a program was a beginning for socialized medicine, and others saw it as a politically sensible first step to a much more comprehensive health care system, which perhaps, at some later date, might be rationally planned.

The one piece of national legislation which sounded like an effort to establish planning, the National Health Planning and Development title of the Public Health Act, was ostensibly designed for decentralized health planning. It sets up regional Health Systems Agencies (HSAs), whose tasks include the measurement and assessment of regional health needs and the development of regional health plans. Yet these plans have been little more than a mechanical exercise because HSAs have virtually no influence over the allocation of health resources in any positive sense. They cannot provide facilities where they are needed, nor allocate practitioners to underserved areas. They have only one policy instrument, the "Certificate of Need," which permits them to deny federal funding for construction of any facility which they can demonstrate is not needed. Their definition of need was normally based, not on how well health problems in the population were being met, but on the utilization rate of existing facilities. Thus a popular hospital would not be permitted to expand if a neighboring one was part empty. It is regrettable, but not surprising, that these limited "planning" agencies will now be allowed to wither away only a few years after their inception. Despite the symbolic trappings , systematic policy design and allocation of resources to solve problems was never intended by legislation. The agencies were intended mainly to provide policing functions in response to popular dismay over skyrocketing health-care costs, and to leave health-care practice and the health-care system largely untouched. As such, they could not, of course, significantly affect health-care costs.[1]

The politics and the people in health policy are very different from those in housing or employment. The leadership is made up neither of analysts nor of planners, and, accordingly, the policy arguments and objectives have not permitted much role for social indicators. The focus of attention has been mainly managing and controlling the spiralling costs of health care systems, and maintaining the practice of health care, rather than achieving particular outcomes defined in terms of health conditions.

One factor in this peculiar evolution of U.S. health policy has been the extent of "third party" payments. Because medical and health care

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[1]The author is grateful to Shoshanna Churgin for observations on HSAs.

costs have been paid largely by insurance companies, no one had incentives to control costs or manage efficiently. On the contrary, the incentives go the other way. While the insured and their employers pay in the long run, the patient has no incentive to shop around for economical health care. He or she is more likely to be attracted to the most expensive facilities. Accordingly, a major problem for health policy has come to be the provision of excess capacity and duplicative facilities for specialized purposes, the costs of which raise overall health care costs. Allocating resources becomes a meaningless task when the resources are unlimited and the goals unspecified. In such an environment, it is logical to focus on management issues such as internal resource management and the control of abuses.

Perhaps the most important factor in the evolution of U.S. health policy is the political power and prestige of the American medical profession, and the leading role they play in national debates. As doctors, they are concerned about health, but their professional perspective leads them to focus primarily on individual health care. In addition, their powerful professional organizations act as trade unions, protecting the privileged social and economic status of physicians. They fear most of all any policy which appears to move toward socialized medicine. For years they used their political power to prevent government planning or supervision of health-care systems.

In a more subtle way, the dominance of the medical profession may have hindered the development of a planning perspective, making use of data. Doctors are trained as clinicians, examining and diagnosing one person at a time. Each patient to them is important and unique. In some basic sense, this approach is antithetical to planning, which seeks to allocate resources where they will do the most good, impersonally, among populations and problems, to meet abstractly defined goals. In contrast, the housing movement was led by people who saw themselves as planners and social reformers. Quite possibly if public-health practitioners had the power of the medical profession, the course of U.S. health policy would have been quite different.

OVERVIEW OF THE ROLES OF SOCIAL INDICATORS

Applications of Indicators in the U.S.

A major application of social indicators in the United States has been in formulas, allocating federal funds among cities and states. In theory, these applications could be quite desirable, shifting allocation decisions from a subjective or self-interested political frame of reference, introducing some element of social need into the choice and assuring that there is an even-handedness about disbursements. For the formulas to improve the justice of allocations, however, the indicators must be meaningful in relation to the program, and they must be accurate. Moreover, these indicators can never capture all the elements of need; so such formulas at best provide only a general constraint for allocations, and should not be viewed as the decisive factors. If they are, they become another tool in the policy debates, and they are likely to be manipulated by those in power. Moreover, the indicators are in a sense, deceptive, giving a decision the cloak of objectivity, when it may be politics as usual.

A case illustrating these points is the allocation formulas for

Community Development Block Grant funds in the United States. The formula grew out of "the politics of computer printout." The results of using various formulas, in terms of the funding that would go to Congressional districts, were calculated and given to Congressmen during the debates. They chose the formula on the basis of how much each district would benefit, not on the logic of the indicators. Even if the decision had been based solely on the indicators, however, anomalies would appear. The formula, using unemployment, poverty population, and age of housing, allocated a sizable sum to one of the nation's wealthiest towns, full of old California mansions and people who have no need to work. So administrative or legislative discretion remains necessary, even when indicators are used.

A second important area of application is in the discussion and definition of policy issues. Carefully designed indicators, with clear concepts and theory behind them, can help give focus to policy debates and resolve arguments about the size and nature of the problems. Their very specificity is important to policy definition, and arguments over an indicator can help clarify policy goals. Indicators can become policy targets--the symbols that are essential to maintain policy momentum over the years, as they were for housing and employment policy. Moreover, conceptually clear, theoretically based indicators, have additional impact because they will be used in research and newly discovered implications can feed back into policy.

In addition, there is a myriad of program design and administrative applications. To design a program one must analyze and locate the target population. Policy targets become embodied in program goals and later evaluations. Particular levels of the indicators are selected and used as criteria for either individual or community eligibility for program benefits, as is the poverty threshold for so many social programs. The characteristic of bureaucracy is to attempt to be consistent in the administration of programs, so quantititative data have an important role. They help assure accountability and define the nature of compliance with requirements of a sponsoring agency. If a program is for the unemployed, then measurable characteristics of beneficiaries must be identified and reported, and a locality must use indicators to demonstrate need. While the measures used in program design and administration are often not identical to those established for the policy, they should be linked conceptually to those original policy measures if the program is to implement the policy.

Indicators also become critical in regulation as well, because they provide clear standards. As such, they are an essential part of the process of protecting the rights of minorities. They have not only played a major role in the desegregation of schools, but indicators have been in many other areas of civil rights policy: for example, data on the percentage of minorities in local labor forces are used as criteria to detect when discrimination is occurring, or as biased for hiring quotas. Programs targeted to minorities have funding levels contingent on the numbers and characteristics of minorities in a locality.

Prerequisites for Indicator Use

Social indicators will only be seriously used when there is a context and ideology of planning, an approach which seeks to identify, define, and solve problems in the society and move toward goals. When policy is incremental, or merely responsive to pressures, social indicators have little role. More subtle perhaps is the distinction between planning in the sense of seeking out and setting priorities among problems existing in population groups, and simply managing--controlling costs or regulating the behavior of individuals. The latter is a maintenance rather than a goal-setting function, which has characterized much of our health policy. The management approach is far more the routine response to vaguely perceived policy concerns in the United States, because it fits well with the individualistic and antigovernment ideology. Moreover, it is easier than searching around for issues, stirring up political disputes, and confronting entrenched agencies with new expectations.

An additional prerequisite for usable indicators is an active research community, working to develop theories and measures relevant to policy. This research community must also have formal and informal links to the policy-making and statistical production process. Though often the ideas of social researchers may not have direct implications for policy, their research is essential in the process of selecting meaningful measures and clarifying their interpretation. Researchers can work with the measures, testing and validating them and determining whether or not they have the presumed policy implications, as they have done with housing-condition indicators. Research findings can also be wrong, as they were about the links between segregation and black achievement, but an open, involved research community will soon identify these problems.

The social indicators that have been useful have evolved from a long process--decades of thought, methodological development, and trial and error in application. There is a kind of coherence among theories, policy ideas, social values, and measures, which is not easily achieved. They have developed, not as part of a systematic effort to produce a total set of indicators, but out of the needs and understandings that were deeply imbedded in the thought of individual fields of social policy. Moreover, there were many participants in the decision process who came to understand the indicators and their concepts and were willing to use them as shorthand for the problems. These indicators have been produced by respected statistical agencies with high standards of method, and some insulation from the political process, as indicators must be trusted by everyone if they are to make a difference. No subset of these many variables is enough to assure the use of indicators; all must coexist.

Recommendations for Social Indicator Development and Application

To those who hope to design social indicators for policy and program use, several principles are important:

1. Keep indicators simple and directly related to intuitively and theoretically clear concepts. Avoid complex aggregate indices of, for example, the quality of life, which have no direct correspondence to recognized phenomena and no clear implications for policy.

Be selective and develop a few indicators for areas of greatest policy concern and consensus. The process will take time, money, and political energy, which are only available in limited amounts. Too large an effort is doomed.

o not worry about developing integrated, logical systems of social ndicators or producing official social reports. The technology and nderstanding are not yet available to do the former; the latter are ot nearly as likely to have an impact as is the publicizing of ndicators in conjunction with discussion of policy questions, which or political reasons social reports cannot do.

stablish nonpolitical, professional statistical institutions to roduce and safeguard indicators.

en an indicator is important and major decisions depend on what it ys, then do it right. Use the best available methods to gather the ta, usually a sample survey, and devote time and energy to veloping adequate concepts and measurement techniques.

ke sure the design links to the policy makers' way of thinking. eally, involve them in the design process, and be prepared to change e measure after the first few efforts to apply it.

stitutionalize the production of the few essential indicators by law i practice, so that they will continue to appear even when they ing bad news.

8. Institutionalize, at the same time, self-correcting processes so that indicators can be changed and adapted in a controlled fashion, as they are found to be flawed or as they cease to match understandings and priorities.

The Value and Role of Indicators

Indicators have been useful in the United States, broadly speaking, to help us see and label problems and to generate a consensus around their solution. They have been useful, too, in helping to design and administer policy in even-handed and efficient ways. They have been most useful when conceptually clear and linked to theories, whether or not the theories prove wrong--because they connect to policy prescriptions and help us to discover when we have made mistakes. But social indicators are not a panacea. They are inevitably partial and inaccurate, and they can be misleading. While indicators should be used because they provide unambiguous reference points, they should never close off debate, nor substitute for judgment, expertise, or political opinion. No quantitative measure can ever capture enough of the reality of a particular time and place to become _the_ decision criterion. Social indicators simply provide one more lens through which to see and understand complex social phenomena, one more way of defining where we are and where we want to go.

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