

## MONITORING SOCIAL CHANGE: A CONCEPTUAL AND PROGRAMMATIC STATEMENT

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Lists of needed research and of needed data constitute a dismal catalogue of our identifiable ignorance, and leave untouched the greater ignorance beyond. Aside from their possibly chastening effect as a deflator of arrogant self-satisfaction, the utility of such lists may not be high. We have no authenticated record of the consultation of such lists by researchers "at liberty" and seeking new topics. Perhaps if the compendia of ignorance were presented as opportunities for those seeking to make their mark rather than as failures of their predecessors to hit the mark, the positive effect on cumulative knowledge would be greater.

Despite some unease at presenting yet another list of things that someone else ought to do, we venture to do so, for we hope to make some contribution to the state of thinking about large-scale structural change in American society, and to follow this up with some small steps in getting new and better data collected and new and better analyses undertaken.

With a pedantry that we hope is forgivable, we want to start with some explication of this paper's title, though not in the precise order of the critical words. By social change we mean, as just indicated, large-scale structural transformations, and to avoid tedium in positive and negative definition of this set of qualifiers, we ask the indulgence of identification by systematic explication of such changes as we go along. At the moment, we may indicate some of the things we are not concerned about: the formation of individual personality in the transition from infancy to a possibly eventful adulthood; the emergence of varying leadership styles in small groups; the dynamic processes in voluntary associations or formally constituted administrative organizations. These do constitute part of the spectrum of social change, but they may have little bearing on the major shape of contemporary society, and it is to the latter that we wish to attend.

Monitoring social change we mean in the full, ambiguous sense of the term. We are concerned with "tuning in," with recording and verifying the messages we may get or produce relating to structural alterations. But we are also concerned with the use of such information for entry into the system, to alter the magnitudes, speed, or even direction of change in terms of explicit, normative criteria. Many people are attempting to manipulate the system, and we think we have some obligation to unite such sophisticated skills as science affords us with such practical policies as explicit value-orientations validate.

And that brings us to the programmatic part of our proposal. For the major aspects of structural change, to which we turn presently, we

hope to secure expert appraisals of the current state of knowledge, and of what knowledge, within our readily potential means, would be appropriate. Specifically, we shall ask an expert on each of our major topics to summarize: (a) what we know retrospectively concerning trends in the area under review, with a note on whether that knowledge is quantitative or possible quantifiable; (b) what we know about current state, and, in combination with (a), about prospective state; (c) what additional trend data are needed, and why? For this third query, we seek both an intellectual rationale, such as potential utility in the explanation and prediction of social phenomena outside the particular topic under inspection, and, where appropriate, a policy rationale, a focus on the use additional and hopefully sophisticated trend data would have for monitoring social change in our second sense, that is, for use in entering the system. We also hope to elicit some additional methodological contributions, of presumed interest to statisticians, but which we can only suggest here: problems of uniformity in definition and modes of reporting, determining the proper periodicity for serial observation, suggesting aggregative indexes or other summary measures and finding the common mensuration units to make such synthesis tenable and meaningful for analysis and policy.

Our principal task so far has been that of conceptualization: how do we most usefully think about, that is, analyze, the major structural features of American society for the purposes we have just indicated. For a time it appeared that we might end up rediscovering introductory sociology, much of which relates precisely to this problem of parts or features or analytically distinct functions of societies. However, we have had to depart somewhat from well-established and authenticated conventions, for our focus differs in at least two significant respects: we are concerned with trends of change, and we are particularly alert to the way deliberate policy does and could affect those trends.

Let us outline first the major headings that we think will conveniently serve to organize the structural changes that merit attention. We shall then turn to some particular topics, which we hope will indicate more explicitly, and with brief illustrative detail, what the grand design entails. We propose five major rubrics for examining structural changes in American society and its constituent features: (1) the demographic base, giving an indication of aggregative population trends, shifting differential contributions to those trends, and the distribution of people across the geographic surface; (2) major structural components of the society, where we come closest to the rediscovery of introductory sociology by looking at the functionally distinct ways in which a society produces goods, organizes

its knowledge and technology, reproduces itself and regulates adult sexuality, and maintains order; (3) distributive features of the society, meaning the way various goods, benefits, and services get allocated through the several sectors of the population; (4) aggregative features of the society, where we attempt to look at what the society as a whole is like, by at least implicit comparison with other societies and by explicit comparison with our own historic past; (5) finally, the meaning of welfare is singled out as a conception of public and private benefits that has changed both in its significance and in the degree to which the society approximates the achievement of its own changing standards. We recognize that synthetic statistical indicators might be readily attainable in some areas under inspection while others may call for considerable analytic research. We also realize that even these major rubrics maybe subject to change pending further review.

Space and time are notoriously limiting parameters, and we shall have to be highly selective and taxonomic in filling in some greater substance under these headings. We hope only to be illustrative, and perhaps a little provocative.

#### The Demographic Base

##### Population Magnitudes and Geographic Distribution

With respect to the demographic base of American social structure, we hope to start from a constructive summary of historic trends in such magnitudes as total population, age-sex composition, total and differential fertility and mortality, and the regional and residential redistribution of the population. Despite the rather extensive, quantitative documentation of most of these trends, various critical questions remain moot: for example, trends in the social selectivity of migrants, that is, the attributes of migrants additional to their "race," age, and sex; also the analysis of new variables affecting fertility, which have destroyed the long-established patterns of differential fertility. The notable failures of past population predictions and the visible scars of those failures scarcely counsel an abdication of continuing attempts to improve our predictive understanding of demographic behavior, especially since these magnitudes affect almost every conceivable aspect of social functioning and welfare policy.

#### Major Structural Components

We now turn to the ways a modern society organizes its basic social functions.

##### Production of Goods and Services

Though other social scientists envy economists the excellence of their aggregative measures, and some envy the influence of these measurements on private and public policy, the envious ones also note that our institutional structure rather than the analysts produced the

pricing mechanism as a way of adding up otherwise diverse quantities. This is not the place to enter into an extensive critique of economic measurement, but it should be noted that some of the monetary quantities are essentially arbitrary, and some other quantities--such as the equivalence of man-hour units in computing the Gross National Product--are simply wrong. What we should like to see, aside from a critical examination of existing indexes, is an analysis of "relative shares" in the production of goods and services, not only as between the private market and the state, but also among other non-governmental and non-market mechanisms of production and distribution--for example, family and kinship production, mutual aid, private charity and philanthropy.

##### Labor Force and Occupations

Labor force and occupational trends provide a principal way of linking economic production with other structural features of the society. Changes in age-sex participation rates reflect such other changes as the rising educational standards for labor force entry, the growth of public and private pensions that permit formal retirement, and the changing pattern of child-bearing in families, permitting labor-force reentry by mature women. Occupational structures reflect not only the major shifts between economic sectors (agriculture, industry, services), but also such trends as upgrading in terms of distributions by skill levels, continuing specialization--the fertility rate of new occupations--and bureaucratization, that is, the relative decline of self-employment. We think that considerable ingenuity is still needed in examining trends in these and other dimensions of economic activity, including the much-discussed but little-measured competition between men and machines.

##### Knowledge and Technology

In any society it cannot be assumed that knowledge is uniformly shared by the adult population, as technical and esoteric information may be in highly specialized custody. But especially in modern industrialized societies, there is a kind of "knowledge establishment" which functions to preserve, retrieve, and distribute varieties of specialized heritages and, even more importantly, to produce new knowledge. We should like to know how to define and measure the store of knowledge and its changes, at least by conventional divisions. We should also like to know the shifts among the agencies that perform research--the government, industry, universities, and foundations, and shifts among sources of support. We wish among other things to get beyond the rather silly notion that technology is a kind of prime mover to which other structures must adjust. On the whole, we get the technical change that we deserve or at least that we support, so that we are better off in national defense and a myriad of consumer gadgets than we are in potable water supplies and traffic safety.

### Family and Kinship

One standard doctrine of structural change is that the colonial or pre-industrial American family represented a different kind of kinship system than that of the contemporary family: in particular that it was a "large-family system" in the sense of strong ties between generations and among collateral kinsmen, whereas the modern family is small in the special sense that it consists solely of parents and their immature children. (Neither of these conceptions has any direct connection with the number of children produced in a family.) Reappraisal of both sides of this contrast, the old large-family system and the contemporary small-family system, put it in considerable doubt. Quantitative historical materials may not permit us to get much beyond the composition of households as distinct from other types of kinship patterns, but even there cross-sectional differentials by region, occupation, and so on, at successive periods of time, should prove instructive. Similarly, trends in rates of marriage, separation, divorce, and illegitimacy can be taken as indicative of family functioning and malfunctioning. The internal structure of the family as an operating unit, including husband-wife relations and child-rearing practices, also no doubt differs cross-sectionally and through time, and measurement of these differences and changes will take ingenuity proportional to the importance of doing so.

### Religion

For alleged reasons of national policy--reasons that are at least debatable--the American population is not officially enumerated in terms of religious affiliation, to say nothing of depth of religious conviction or forms and frequency of religious participation. We are thus not in a position to answer very effectively the changing position of religion in American society, or to appraise the truth or interpret the possible significance of the supposed upsurge of religion after World War II. Although empirical studies indicate the importance of religious differences in fertility behavior, we have little comparable knowledge about, say, religion as a factor in occupational choice or in political participation. Local studies have been made, but our focus is broader, and insistently temporal. Clearly, in terms of American institutional principles, trends in religion are not of direct concern to public policy as represented by government, though this line too is repeatedly blurred--as in tax exemption and aid to education. Yet our proposals are not exclusively policy-oriented, and here especially is a place where new research under private auspices will be needed.

### The Polity

All modern countries are "welfare states" in some form or degree, and we should like to see an appraisal of the absolute and relative importance of government in American society. Is it true that the Federal establishment has grown "at the expense of" state and local government, to say nothing of the market and other private

mechanisms, or has it grown in addition to these others--that is, performing many services not previously performed at all? This kind of question cannot be answered by use of aggregated budgets and the proportions of the governmental sector in the Gross National Product. A much more analytical approach is required, for we must attend both to the changing size of the social universe as well as to the relative shares of different structures through time. In this regard, we feel the need for a reappraisal of the changing relationship of government to other social organizations. A simple confrontation between business and government, for example, was never exactly the situation, but now appears dangerously naive in view of restrictive, competitive, cooperative, and mutually dependent relationships that operate simultaneously.

How do we conceptualize and measure the functions of the state? Measures of "political effectiveness" are an inviting possibility. Voting behavior and other indexes of political participation are clearly relevant to the operation of democracy. Whether meaningful indexes of international effectiveness can be developed may be debatable, but presumably some such calculus enters into budgetary and other policies relating to diplomacy and defense. Crime and civic disorder presumably represent debits against internal political effectiveness, as perhaps does delay in the courts or the unequal administration of justice according to social position. Many of the appropriate statistical data are either poor in quality or non-existent, but this is the type of situation which calls for the sort of renewed effort and ingenuity that we hope to encourage.

### Distributive Features of American Society

Our next major category relates to the way various benefits of economic, political, and voluntary activities are distributed through the population. Though the benefits are often allocated in a highly organized way, we believe there is a useful distinction between the major structural features, just discussed, and the distributive features which can be viewed as attributes or shares of individuals or families.

### Consumption

It is of course too simple to say that the purpose of economic production is consumption, for this leaves in some doubt production for capital expansion to say nothing of national defense, maintaining order, or a host of other collective activities. Nevertheless, consumption levels clearly do represent an important index of economic effectiveness. Here we should continue and expand our examination of trends in income levels and income distribution, noting also changes in relative shares of various goods and services in the budgetary behavior of consumers. Changes in non-market sources of income such as charity, direct relief, public insurance, and pensions should be examined, along with attempts to develop minimum standards regardless of market contribution. Since that portion of income that is "discretionary" is not predictive of consumer

behavior, an appropriate question is, what are the determinants of differentials and trends in "styles of life"? For example, what are the identifiable characteristics of families that accumulate goods and those who buy experiences, of those who save at a high rate for their own deferred consumption or that of their children or for establishing charitable trusts as compared with those who currently spend or overspend their income? The commercial utility of such predictors is apparent, but so is their analytic utility and possibly their utility for various public policies such as taxation rules.

### Health

Good health is scarcely debatable as a welfare goal nearly universally shared, but its measurement is difficult in a prosperous society that enjoys high life expectancies and a low incidence of killing or crippling communicable diseases. Thus we believe it appropriate not only to examine trends in the traditional health indicators (life expectancies, infant mortality, incidence of morbidity and disability) but also to appraise new attempts to define health status in terms of role performance (can the breadwinner do his job, the child attend school and do his lessons, the housewife perform her tasks?) We should note that trends in mental health also merit examination, and here there is clearly a need for greatly increased sophistication in definition, identification, and measurement.

This is perhaps a suitable point for interjecting the reminder that we are concerned with the methodological problems of how data are produced as well as with the end products for purposes of analysis and policy. Health statistics, like crime statistics, are typically the product of large numbers of individual officials and local agencies. One way of achieving standardization is the sample survey, which for health status presumably encounters fewer causes for concealment than would a survey of the incidence of crimes or criminals.

### Education

We have already referred to the "knowledge establishment," but here we are concerned with education in its distributive features. Trends in educational attainment, with suitable cross-sectional differentials, are relatively easy to pick up from census sources. But these data are relatively crude, for their use depends upon some notion of equivalence of "school years." Since schools are notably different in standards and individuals are at least equally different in performance, the school-year unit is not very homogeneous. Moreover, some individuals are genuinely self-educated, in whole or in part. Hence it has been suggested, here and there, that we should develop measures of educational status rather than school completion, measuring current level by some sort of achievement test. This sort of approach is interesting, even if providing no retrospective trends and thus only useful for replication in the future. But the

conceptualization and tooling up for this kind of a survey should be approached with exquisite caution, as there may be little or no correlation between the human mind as a memory-storage-and-data-retrieval system and the human mind as a problem-solving mechanism.

There is another educational problem which calls for considerable statistical finesse. So far, no one has disentangled the relative historical importance of education as an investment for future economic growth and education as a consumer benefit deriving from economic prosperity. The advances in education, as standardly measured, are undoubtedly a combination of these and possibly other factors, but it would be analytically important to sort them out. The policy implications, particularly for newly developing countries, leap out at us.

Though we are dealing here with education in its distributive aspects, there is no need to be too precious about distinctions adopted for mere convenience. Accordingly, we suggest that education be viewed broadly from still another point of view, that of the apparently growing importance of adult retraining for persons faced with technical displacement, and of continuing education for technicians and professionals who are constantly faced with incipient obsolescence. Again, retrospective trend data may not be available on these changes, seemingly recent in their cogency, but there is every reason to expect that the phenomena and the problems will be of future significance. If we cannot reconstruct the past, we may be able to monitor the future.

### Recreational and Expressive Activities

Attention to the businesses associated with recreation as constituting economic opportunities and concern for the constructive use of leisure offer reinforcing testimony to the apparently growing importance of leisure time and its discretionary use in modern American society. We say "apparently," for we must be cautious about what we are measuring or comparing. No known society, however impoverished, is without art forms, periodic festivals, and more frequent indulgence in fun and games. What we should like to know are the trends in both the magnitude and the form of recreational activities. If it was indeed early industrialism that introduced the practice of ceaseless toil, not even known in most slave systems, it would be interesting to trace the rise and fall of that grim condition of man.

The forms of recreational activities also warrant examination in terms of trends, though here one must tread cautiously indeed. On quick inspection, this is a very mixed bag of goodies: visiting, active or creative hobbies, reading, travel, active and passive sports and entertainment, and participation in varieties of voluntary associations. Cross-sectional data on time-budgets of behavior are just beginning to appear, and temporal trends are almost impossible to establish. Those who are involuntarily idle

and those who can afford to be may have little in common, as do those who have minimal work commitments and those who are wedded to their jobs. But never before was the saying so true, or so possible, that "Man does not live by bread alone," and it would be foolish not to try to establish the changeful significance of that biblical aphorism.

#### Aggregative Features

We next turn to a partial attempt to characterize the over-all features of American society as a total operation that may distinguish it from others and certainly distinguish it from its own past. We have just been examining the prospects for getting distributive answers to the question, How are we doing? We now want to attend briefly to a pair of aggregative features of the society, and thus to get aggregative or collective answers to the same question.

#### Social Stratification and Mobility

The ideal of American society as an equal equalitarian system was never entertained seriously, if by equalitarian one means a social order without distinctions. Certainly notions of relative talent, merit, and "worth" have always prevailed, and no society is without such distinctions. Still, certain areas of absolute equality have ancient roots--for example, in the operation of civil and criminal law, and, later, in the franchise. Men more sophisticated than the Founding Fathers had the good sense to translate the equality of men into the equal opportunity of men--an ideal we have yet to attain.

What we should like to see is a thorough-going reappraisal of evidence concerning the relative degrees of absolute inequality (say, in property, power, and income) in American society through time. This is a view of stratification in one of its strict senses. We should also like to see an examination of relative degrees of rigidity and openness of sectors and strata according to merit. This is the converse of stratification in terms of impermeable boundaries. Thus trends in intergenerational and career mobility warrant analysis. Just as an example, it is almost certainly true that sociology and social history texts that emphasize the greater mobility opportunities in the nineteenth than in the twentieth century are plainly wrong; but it would be helpful to know more precisely not only the total probability distribution by type of origin but also the relative importance of various avenues or channels of status changes.

#### "Cultural" Homogeneity and Diversity

There is a class of social scientists and literary critics that bemoan the standardization and degradation of tastes in a "mass culture." Why standardization and degradation form an equation is not at all clear, but the more measurable component of the two, standardization, is also dubious. Clearly, some ideals and levels of economic consumption are becoming more

standardized, as are, perhaps, rather ephemeral fads and fashions. Equally clearly, pluralism in political and religious conviction, in some elements of ethnic tradition, and simple eclecticism in preferences ranging from art forms to cuisine about in American society. The questions are: in which respects are we becoming homogeneous, standardized, and even "massified"--if that, doubtfully, is a word; and in what respects do we exhibit hardy survivals and new manifestations of pluralism? The answers may not have grand policy implications at the federal political level, but they would have some considerable analytic value.

#### The Meaning of Welfare

We return, finally, to an explicit consideration of deliberate social change, which we choose to limit to conceptions of welfare. This is the second sense of "monitoring" social change, which we identified in the beginning. (Welfare is of course also a consequence of unplanned change, and monitoring that is a major basis for deliberate intervention.)

#### Welfare and Its Measurement

An interesting historical essay could trace conceptions of welfare in various societies at different times. Such a general task would not be easy, for it would approximate the anthropologist's or sociologist's conceptions of comparative value systems. But for the Western world or American society one might set an aim at once more modest and more precise: how well were the distributive features of society previously noted performed, and by what mechanisms?

A consideration of welfare conceptions leads to certain distinctions and certain notions about measurement. If the avowedly highest goal of human welfare is the achievement of individual immortality, there is no pragmatic way in which we can measure the quality of performance. But we take a more mundane view, and assert that this view is never irrelevant in any substantial human aggregate: how are we doing, here and now?

We should still, however, think that in the measurement of welfare we must deal with several analytically distinct conceptions: (a) collective welfare, such as national independence and defense, international power and influence, the preservation of cultural integrity, the preservation of valued political principles and forms such as democracy and an independent judiciary, and the protection and increase of public wealth as represented in monuments, parks, and areas left in their natural state; (b) many of these welfare considerations also have a distinct dimension of concern for the future: the preservation of these values for one's progeny and for generations yet unborn; (c) distributive welfare, ranging from safety and the amenities of the work place through material well-being as provided by the market and its substitutes, to the preservation of pluralism, privacy, and individual liberties.

We think that measurements of these welfare functions are imaginable, starting with such simplicities as monetary values and per capita participation rates, and proceeding wherever analytic ingenuity leads us.

We did not say that the tasks of monitoring social change are simple. We did imply, and now say explicitly, that we hope to continue thinking about them and then set about doing them.