

(4) Often data that is irrelevant for intelligence purposes (concerning deceased respondents, no longer existing enterprises, etc.) is a prized content of a statistical file because of its utility in permitting the analysis of statistical trends and other indicators of social change.

In short, the changes in the Federal Statistical System currently needed would not generate files sufficiently comprehensive in either scope (that is, the numbers of individuals) or content (data would be primarily restricted to the public face of the individual) to turn it into a comprehensive intelligence system. It is, furthermore, already protected by well established procedures that can be extended and improved. A statistical file would have so many gaps in the kind of information important for intelligence use and contain so much information irrelevant to intelligence use that it would be grossly inefficient instrument as a source of personal intelligence. The incentives to pervert such a statistical system for intelligence purposes are missing because less costly and less risky intelligence sources are already available and are more complete.

At this point let me insert an example to illustrate both the new dimension in statistical analysis that is emerging and the dramatic payoffs that are available. Through most of the evolution of the Federal statistical system attention has been almost entirely limited to measures of particular economic and social phenomenon. Attention was mostly focused upon individual series such as the size of the population, the volume of foreign trade and the output of manufacturing. Most of the uses served either public or private management. The series usually found their origin in some particular management need.

We have been finding over the years that these management-oriented series do not serve the information requirements of policy determination very well. We had this forcefully brought home to us in the 1930's when we found that the effort to establish public policy to cope with a stagnant and unstable economy was foundering for want of any comprehensive measure of the economic performance of the nation. As a consequence, over the last three decades we developed a system of economic accounts—the national income and product accounts produced by the Office of Business Economics. The interesting thing about this statistical program is that it produces synthetic statistics *based upon the matching and coordination of great masses of data* taken from individual management-type series. Because of the basic incompatibility of many of these records it has taken several decades to bring them to their present stage of refinement and the task is not yet complete. The problem is that these kinds of analytical problems in policy formation require that data be brought together that are *separately generated* in the collection process but which pertain to essentially *connected* forces in economic and social behavior. In analyzing these connected forces in the establishment of policy we must examine the relationship of many data series.

Our experience with the national income and product accounts is a monument to the difficulty of serving policy with this kind of information and a monument to the payoffs that are available when we do. The return on the money spent on this program must surely be several thousand percent. Without it the successful role of public policy in the monetary, fiscal and budgetary process in promoting the stabilization and growth of the American economy would almost certainly not have been realized.

Most of the effort and expenditure and most of the development time essential to the production of the national accounts was consumed in reconciling incompatible characteristics of the individual statistical series that had to be associated in analysis.

The growing information requirements of public policy are forcing us more and more into these forms of data integration in a situation where the production process that characterizes the statistical system are generating management-oriented series that are often technically incompatible for policy use. We can't go on building new Offices of Business Economics to force the recalcitrant series into synthetic forms appropriate for policy, or go on providing huge sums of money to individual agencies (as we have in the case of OEO) to carry out special statistical missions that are completely beyond their capacity to perform. The cost in resources and in time is becoming formidable. Yet policy must be served!

There is now emerging via the computer the possibility of integration of data at the primary level of data production, provided that the standards and procedures are modified to realize this potential. To do so will not only allow existing comprehensive series (such as the national economic accounts) to be improved and produced more cheaply, they will open the way to a much more flexible response to fulfilling the information requirements in other policy areas. The