This session made some progress in visualizing the requirements as well as assisted in clarifying some elements of the problem to be solved. In particular, we began to formulate some notion of how an analysis of user requirements might be structured and carried out. We could not, in the time spent, get to a more precise specification of the system elements. I feel that this work has laid the groundwork so that a series of additional work sessions of the same type might lead to a formulation of more specific program options. was found to be large enough that it did not seem advisable to undertake this kind of intensive staff work without a more specific decision on the part of the Director of the BOB concerning the kind of effort that is going to be devoted to this problem set and under what auspices.

At the same time some informed speculative judgments about the order of magnitude of costs developed out of the discussion. A total program of the type outlined under the recommendations would probably start out with an expenditure of \$1 or \$2 million annually in the first years and grow to the neighborhood of at least \$10 million a year. In the early years the size of the program will be controlled more by the practical limitations of assembling and training the kind of staff and acquiring the kind of equipment necessary. The fund could not be spent at a rate commensurate with the need and the objectives. A more detailed specification of program objectives, their phasing and the allocation of costs will have to rest upon additional staff work and should be preceded by some

tentative policy decisions that will guide the work.

Staff requirements

Just as it is not possible to detail costs, it is not possible to detail personnel requirements. However, all of the reports or the discussions leading to them emphasized one point. The kind of statistical reference specialist, user service specialist and statistical systems analyst that is required to make this kind of program work either does not exist or is in extremely short supply. This implies (1) that program development will be constrained at the outset by intellectual resources and not financial resources, and (2) a successful program in this field will have to make explicit provision for professional development and training both in its program and in its budget.

Technical requirements

This is also the place to point out that there has been nothing in the entire review to suggest that an effort of the kind outlined in this report would be technically constrained. There has been some indication that existing computer hardware has been designed with greatest concern for computational capacity and is not as economical or as flexible as possible for the management and servicing of very large scale numerical files. However, the existing state of the art contains the essential elements of a more appropriate hardware system.

Similarly, the software routines for file management and servicing will need to be developed, but there is nothing to indicate that these problems of system development are not tractable. What is indicated is that considerable work must be expended over time to create these capabilities. There is every assurance, however, that the state of the art is adequate to support fully this kind of effort.

ISSUES OF ORGANIZATION

My views on the organization issue have been strengthened by the months of study since the preliminary memorandum. First, I cannot visualize a meaningful program addressed to the interrelated set of problems discussed above without a considerable degree of centralization of function. Some form of interagency service center will be essential. Second, if such a center is developed with existing agency structure essentially unmodified, it cannot perform its mission without agency cooperation and without explicit accompanying modification of

agency missions.

This suggests that an effort of this scope could not be implemented without seeking new legislative authority. Legislation will have to be worked out and sought that will permit the service center to receive file custody, that will relieve the agencies of their disclosure restrictions as they pertain to the release of data to the center, and, at the same time, transfer the agency's disclosure obligations to the center. No workable independent center could be developed without meeting this issue head on at the outset. Further, the kind of program coordination and control of standards that will be essential may require legislation giving some interagency program authority to the new center. In addition, a single budgetary instrument for implementing the new program would be essential.