tions to a continued pouring of these funds into the coffers of organizations engaged in research activities, is a business-like understanding of delivery for cash as specified in the contract.

The obvious retort to this is, of course: How can you engage to deliver when you don't know in advance what the product will be, the assumption presumably being that the investigator does not know what he is going to find until he finds it? This leads us to the necessity for a specific definition of what we understand a research project to be.

As I see it, research may be on the one hand conducted by an individual financed or retained because of his outstanding scientific accomplishment. On the other hand, it may be conducted by an agency organized for research purposes and in which competent personnel is engaged for each project or series of projects. The arrangement usually does not specifically contemplate the conservation of the fruits of genius as in the first place: rather does it define the specific area to be explored, the project staff being engaged for this specific exploration.

It is my opinion that of the vast amount of research work now being undertaken, the portion falling within the first classification here given is small. The conditions governing the work under the first classification are, as I see it, the concern only of the parties to the arrangement, which of course excludes me from a discussion of such arrangements. My observations are concerned only with the second type of operation, in which the project centers around the subject rather than around the investigator, though of course this is not intended to minimize the importance of competent direction of the project.

With this conception of a research project in mind, it appears to me that the course of the exploration and the cost of it can be forecast with reasonable accuracy. It is true that we do not know what we shall find—that is why the project is being undertaken. But we do know what we are going to examine. If we have no information as to what records and other data are available, it is wise in my opinion to arrange a preliminary survey, when a bibliography of available source material may be compiled and other necessary reconnaissance work undertaken, looking to the preparation of a well thought through plan of operation for the project. This plan usually starts from the top: that is, we work from what we are looking for to how we are going to get it. A flow sheet of operations is constructed, bringing the operations down to their smallest possible units, and in this forecast, as I see it, the clearness of the cost estimate is a considerable indication of the thinking through of the ways and means of securing the desired results in the project. In this way a clear statement of the work to be done is made as a basis for the appropriatoin of a certain sum of money and while the nature of the findings cannot be forecast, they will show the results of the work contracted for and agreed upon.

The report may indicate the desirability of further exploration and investigation in certain directions and these can be carried out under another appropriation, if so determined upon. It may be that the contract will admit of certain latitude on the part of the project staff within he appropriation, and be provided for within the terms and conditions of the grant.

It is in my opinion quite practicable to so organize a procedure such as I have briefly sketched, that delivery of the results of social research projects may be secured as definitely as the results of any other form of inquiry.

Morris L. Cooke.[5] This paper covers (1) the desirability of working to a schedule on making surveys—especially reconnaissance surveys; and (2) the technique applicable to such schedules. My discussion has to do with the first of these points.

Not so many years ago all research workers—especially those working in pure science—took the position that any scheduling of such work was almost an impertinence. Given competence and devotion the answer sought would be forthcoming in due season—Deus volens.

This is not generally speaking our present-day attitude, certainly not for more or less routine researches carried on by other than very exceptional men. Gossip had it some years back that when a certain pure scientist of undisputed top-rating was assigned the problem of the discovery of the cause of infantile paralysis, he called about him thirty savants and boldly announced that the troublesome germ—if germ it was—must be isolated within two years. I inquired of him later

[5]Consulting engineer, Philadelphia, Pa.

what basis there could be for the story. He replied of course that there was none. But he added a statement to the effect that with so much to be discovered and to be done it was his policy to attack problems the solution of which might be expected within a reasonable time.

Those conducting studies of the kind which our author has used for illustration would be well advised to have in mind that in the long run we must satisfy those who provide money for such undertakings that they have not only been begun, but ended, in workmanlike fashion. There is too much of a temptation to feel that the money once in hand we can drift. If the supporting public is to provide funds for such purposes in rapidly increasing quantity—as they must if we are to cope with what we call present day civilization—then those expending these monies must develop a technique by which their interest is retained throughout the inquiry and confidence established at the end. The recent past provides plenty of food for the disillusionment of generous givers. I believe that the failure to plan definitely at the start is one of the prime causes of such disasters.

Mr. Hunt has been careful to use the term "reconnaissance survey." I believe Mr. Hoover coined this phrase and it is a very happy one. As a mining engineer he is familiar with the three grades of inquiry common to mining—(1) the prospect, (2) the reconnaissance, and (3) the survey. I imagine that no one would have the temerity to suggest anything but a minimum of planning as to prospecting. The very lilt of the word suggests the utmost of physical and intellectual freedom. But when one of these imaginative scouts comes back with the suggestion of pay dirt in whatever direction it may lie then from a management standpoint the time has arrived for schedules and a rather definite plan of action. I believe that especially in the case of reconnaissance surveys which are supposed to be short of duration and with conclusions not based on too high a factor of safety, excursions off to the side are to be deprecated. It is very difficult for certain types of minds to be trammeled in any such way. Spirits like these ought to content themselves with prospecting—a noble calling when pursued with social purpose. Again, I feel that especially in the social sciences we want a large number of short reconnaissances running a limited time rather than surveys long drawn out. In any given situation we usually have our hands full acting on the suggestions growing out of a reconnaissance.

John Fitch.[6] It is evident both from the paper and from the discussion, that we are in need of precise definitions. I do not understand Mr. Hunt's distinction between a survey and research, and I would not apply the term "reconnaissance survey" to such extensive studies as some of those included in his paper.

We are indebted to him for the care with which he has analyzed certain elements in the studies chosen for examination. More of such painstaking comparison is needed, and much more should be done before too sweeping conclusions are reached concerning the possibility of standardizing technique in this field. There are many variables in social and economic surveys which make exceedingly difficult if not impossible the sort of exact advance planning that is characteristic of the engineering profession. Among these variables are the relative complexity or simplicity of the subject studied, degree of specialized equipment required of field staff, ability to find competent persons free to undertake the task, extent to which co-operation can be secured from persons or agencies in the field, and, far from least, the degree to which controversial questions are involved. All of these enter in to influence the time factor.

In order to facilitate the sort of analysis that Mr. Hunt has here so ably begun, every report of an investigation should state as explicitly as possible the method used in the study. Comparisons of technique could then more readily be made. We need to know more of the methods used under different conditions, the extent to which tools of various sorts are used, as the questionnaire, the interview, original documents, etc., and the manner in which such tools are used.

There are certain ethical questions also that may well be considered. These include, among others, the right of the investigator to the information sought, the handling of confidential data, the use of introductions, and the responsibility of the investigator to the agency employing him, to the persons from whom he obtains information and to the profession to which he belongs. The latter point is suggested by the contract referred to by

[6]New York School of Social Work.