First, I would like to congratulate Emerson Elliott and the Center for Education Statistics for an outstanding effort in turning around their program of elementary and secondary education statistics. From a program which was considered mediocre at best, the Center has generated one which is filled with hope and promise.

The paper describes many of the steps that have been taken to improve significantly elementary and secondary education statistics. Efforts have been made to upgrade the quality and timeliness of both administrative record data and survey data. This process which began in 1985 has already borne fruit. I was especially struck by the openness of the process which was undertaken to obtain advice on ways to improve the Center's program, and the willingness of the Center's leadership to accept that advice. The efforts to build stronger relations with the states are commendable and long overdue. Although not mentioned in the paper, one would assume that the Center is also reaching out to large city school systems and other groups which play an important role in American education.

The information gathered from administrative records, the Common Core of Data, should be significantly improved by actions the Center has taken. For example, the common definitions project the Center funded with the Council of Chief State School Officers and the recent efforts to develop a federal/state cooperative education statistics program will generate, if successful, significant improvements in the quality of data. The willingness of the Center to establish reporting deadlines and stick to them, as well as the plan to publish preliminary reports should enhance the timeliness of Center reports.

On the other hand there still appears to be some conceptual distance to travel in the Center's sample survey program. In the paper's discussion of the comprehensiveness of the survey program, very little is said about the relationship between student outcomes and schools, teachers, and other resources. Relationships between student outcomes and contextual variables must be understood in order to assess the efficacy of various education modalities. The report, Alternatives for a National Data System on Elementary and Secondary Education (Hall et al., 1985) cited in the Elliott and Cowan paper, laid out a conceptual framework for a new system that would have the kinds of data needed to describe and understand educational processes in the United States. That report listed "family and community environment, educative difficulty, resources (both monetary and non-monetary), goals, process, and outcomes." Clearly the Center understands the importance of such linkages.

For example, we are told quite a bit about the linkages between teachers and schools; on the other hand, little is said about linkages between students and education resources, such as teachers, physical plant, etc. Further, little mention is made of the educational environment of the student or educative difficulties. Without studying the family and the community and the relationship to schools, teachers and school practices it is difficult to have a reasonable understanding of student outcomes. The paper does mention a possible household survey, which would be reasons that are not made clear would be compatible with the Current Population Survey. Perhaps such a survey of households could use the school and staffing survey as a basis for a sample, thereby permitting at least some inferential environmental context.

Although not a perfect solution, in an era of resource shortages a combination NAEP and the School and Staffing Survey would be a significant step toward developing the kinds of relationship measures that are needed. However, as the paper points out, there are significant administrative and analytical difficulties in combining the two programs. The Center should commit itself to including student and environmental characteristics and some measure of student outcomes in the next school and staffing survey. If it is possible to combine school and staffing collection, some other means should be found to obtain data that will permit analysis of relationships between resources and outcomes.

I was pleased to see that data will be maintained at the school and teacher levels, thus permitting micro-analysis. Hopefully when a student component is added to the school and staffing collection the student records also will be maintained on a micro-record basis. The Center should make available public-use microdata files for researchers. Making micro-data files available to the public will necessitate considerable research into methods of maintaining the confidentiality of such records. The benefits of feedback from external researchers surely would render such efforts worthwhile.

In what I am sure was an oversight, the Elliott/Cowan paper neglected to mention the decennial census as well as an education data resource. The 1990 census should provide many of the benchmarks needed to analyze some of the valuable sample data which the Center plans to collect.

In closing, I would like to congratulate again Emerson and the Center staff on a job well begun and soon to be well done.