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Comment

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Don Dillman has provided us with a stimulating article dealing with an important and complex issue. The article does an exceptional job of articulating aspects of the difficulties associated with improving government survey systems and also offers practical suggestions for addressing some of these difficulties. Although some may view it as an omission that popular terms such as quality management, continuous improvement, re-engineering, and reinvention are not mentioned, I find it refreshing that Dillman avoids incorporating transient jargon from the quality literature. Nevertheless, the article does include approaches advocated in this literature, especially in the suggestions related to technical training. However, one important concept generally emphasized, improvement measurement, seems to be neglected. Several of the comments below attempt to acknowledge the role of measurement in understanding and addressing the problems associated with improving survey systems.

I agree with Dillman's basic premise that innovation and change in government survey organizations is often difficult to accomplish; over the years, this has been a source of frustration for many inside and outside of national statistical systems. However, it can be argued that this is not necessarily a bad state of affairs. Changes to important national data systems should be carried out in a most careful and deliberate manner and only after comparisons of costs and benefits have indicated that a change is appropriate. Costs associated with innovation include, for example, basic methods research, operational tests, short-term implementation inefficiencies, and potential disruption of time series. Important questions must be answered by researchers and operational managers for effective decision-making to take place. Does the change produce an improvement? Is the improvement worth the costs? These are questions to which the two cultures, research and operations, often have different answers. Researchers play a vital role in providing evidence as to the existence and magnitude of the improvement. Operations managers play an equally vital role in providing evidence regarding costs and the practicality of implementation. As Dillman points out, both cultures are essential. If either culture does not provide the understandable and convincing evidence expected, the information needed to reach a decision will not be available and difficulties are likely to arise.

The article states, quite correctly I believe, that the adoption of ideas for reducing measurement and nonresponse error seem particularly difficult to accomplish. A contributing factor to this problem may be that it is difficult to design affordable research studies demonstrating, for example, that new question wordings

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or collection techniques produce estimates with less error than those produced by existing procedures. Evaluation studies for questionnaire wording can be costly and difficult to design. A large sample is often required to show that the difference between two alternative versions of question wording is statistically significant. A large sample alone is not sufficient to provide evidence as to which version produces an estimate with smaller measurement error. In addition, if the primary purpose of the survey is to estimate change and preservation of a series is an issue, questionnaire wording changes may only occur during major revisions when resources are available for overlap samples. Another contributing factor may be that most research on measurement and nonresponse error is variable specific. That is, since the effect of different procedures will likely change from one variable to another, studies for each variable, or at least a set of key variables, must be conducted. This leaves us in the unfortunate position of having research relevant to a particular survey and a set of variables but with limited information for other variables, even those in the same survey. Empirical information needed to support decisions to make changes in these areas is both expensive and difficult to obtain. In the absence of such information, it is often difficult to convince program managers that a change indeed engenders improvement.

Dillman mentions that many innovations have occurred in government survey programs. Indeed, the claim can be made that important innovations are commonplace in government statistical agencies. Huge numbers have occurred in recent years, even with shrinking statistical budgets. How did they occur? Were all difficult or some less so than others? There are a number of specific examples of government survey innovations that have occurred without much difficulty. They seem to fall into two broad categories.

1. Innovations can occur rather quickly when a program manager is convinced the improvement, or in some cases, the perception of improvement, is worth the cost. On the other hand, when the manager is not convinced, innovations generally do not occur.
2. Innovations may occur more easily when they are related to technology. In many instances, it seems we are able to "demonstrate" without much effort that a change to a "better" technology is an improvement. However, as Dillman mentions, the criteria for defining better may not be directly concerned with the reduction of survey error. On the other hand, other criteria, such as timeliness and data collection costs, are important.

The article offers four suggestions to help create an environment that is more receptive to change, three related to knowledge and the location of knowledge within the organization and one related to the organizational structure. It is mentioned that organizational structure can be important to how decisions get made and to what types of people communicate more naturally. However, organizational structure is only one of a number of ways to encourage communication.

Those of us in survey organizations all know specific survey programs that are extremely resistant to change and others which are much more receptive to innovations. We can even find examples of each within the same agency and organizational

structure. What makes these programs different? It is difficult to say for sure,but individual program managers certainly must play an important role. One also can look at the same program over time. We observe programs that have successfully resisted change for years, and then, within a matter of months, the entire program culture is different; people are actively looking for new ways to deal with long-standing problems and improve the program. What happened? One event related to such an immediate change can be the departure and replacement of the person occupying the program manager position or the position one level above that of the program manager. In the examples I have in mind, the new leadership had two characteristics in common. They had strong technical skills, the kind of experience and training that Dillman recommends, and they did not come directly from the program in question.

This is not to suggest that there should be wholesale changes in program managers, but perhaps another way of improving communication and creating a more receptive atmosphere for innovations is to encourage staff rotation across programs and cultures. As managers of research efforts in survey statistics, we seek members of the research culture who can effectively deal with the operations culture in identifying, researching, and implementing solutions to applied survey problems. Often the researchers that do this best are ones who have good research skills but, in addition, have spent time actually working in the operations culture.

Perhaps the most important suggestions to emerge from this discussion have to do with the need for technical knowledge in survey methods. When many of us received our academic training, course work in survey methods was either not available or consisted of one or two courses. Although this is still the case in most universities, there are a few places where a wide variety of course work in survey methods is readily available. Government statistical agencies should support such efforts, and those in both the operations and research cultures should avail themselves of these opportunities.

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