

Longitudinal Survey Data - "Move it forward"

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Abstract:

The Health and Retirement Study (HRS) is a national longitudinal survey on the health and economics of aging and retirement. The HRS utilizes a CAI instrument for biennial interviews of one to two hours in length given to around twenty thousand participants.

In the HRS Interviewing process, data from a prior wave is preloaded, confirmed or amended and then used to control flow throughout the remainder of the survey. In our original design we loaded a set structure with previous wave data. As the interview progressed, the data was written back to the original location. The Blaise checking mechanism would then update values across our complex instrument rendering it fairly unpredictable. Debugging the code became unworkable. Because of this, the HRS programmers were obliged to add code to create "gates" to control the updating of the data. With these gates, once the interview reached a point where a field was answered, the interviewer was locked out of a sequence or section and not allowed to back up and change answers. After four waves of altering the logic to control the selective checking mechanism, the code had become unpredictable and unmanageable.

Prior to this wave's interviewing we decided to restructure the data storage process. With a philosophy of "Move it forward" we created several new structures that would receive updated data as we progressed through the instrument. This idea allows the logic to be cleaner, more manageable and concise. We were able to reduce the number of "gates" and allow interviewers the flexibility of moving backwards and forward to check the accuracy of their answers.

We have been successful in making the Blaise code more extensible, and by removing the gates we have improved the quality of our data by allowing the interviewers the flexibility they need.