



Definitions of RSD and ASD

We are providing practical training on responsive survey design (RSD), but in our short courses, we actually introduce several different "flavors" of the RSD idea. The purpose of this document is to clearly describe the definitions for different types of "responsive" and "adaptive" survey designs that have developed over the years, and clarify any confusion about distinctions between these terms.

In general, we follow the discussion in Chapter 2 of the new book *Adaptive Survey Design*, by Schouten, Peytchev, and Wagner.

Responsive Survey Design refers to a type of phased survey design where decision rules for how to respond to problems with important indicators of survey costs or errors are **pre-planned**, in advance of the onset of data collection. These pre-planned design changes are known as **phases**. Each phase, with a different data collection protocol, will reach a point where collecting additional data will not change key survey estimates. At this point, a phase has reached its capacity and a new phase should begin. Ideally, the thresholds for indicators will mark when this **phase capacity** has been met. Changes in the indicators in question are then carefully monitored for a pre-defined period of time during the new phase.

Adaptive Survey Design refers to a type of survey design where different data collection protocols (e.g., modes or sequences of modes of data collection) are assigned to specific **strata** of the full sample, where analyses of historical data have suggested that the different strata may ultimately be more productive when assigned to a particular protocol. This assignment is done at the onset of a survey.

We note that designs can be both **responsive** and **adaptive**. For example, the second phase of a responsive design protocol may involve dividing active nonrespondents into different strata, and then assigning the different strata different protocols in the second phase (rather than giving everyone in a subsample the same new protocol). Much of this is informed by active

analysis of the current data (and historical data). An adaptive design may evolve out of a series of responsive designs.

You may also hear the terms **dynamic** and **static** adaptive design. The main distinction here is that dynamic adaptive designs base the assignment of protocols on data observed during data collection (similar to responsive design), while a static adaptive design generally assigns the protocol based upon information available before data collection. Each approach requires different resources for implementation.

In general, both responsive and adaptive designs offer different survey protocols to a single sample. Adaptive designs rely upon information on the sampling frame and previous experience to make these assignments before data collection. Responsive designs are often used for surveys with less information on the sampling frame or uncertainty about how subgroups might respond under different survey designs. One should not get bogged down by the differences between these terms; all of these techniques are designed to address issues that affect the efficiency of data collection. Each of the techniques covered in our short courses will allow researchers to adapt their designs to real problems that arise during data collection. As such, we hope that researchers using these techniques recognize that they are related concepts.