Survey of Doctorate Recipients Sample Design Expert Panel  
Meeting #1 | May 15, 2017  

Summary  

Panel formation  
In May of 2017, NCSES engaged a panel of four experts in survey sampling design with extensive experience in working with longitudinal surveys. The goal of the expert panel is to develop and evaluate SDR sample design options that balance the survey’s primary goal of producing cross-sectional estimates with a secondary goal of producing reliable longitudinal data for analysis. NCSES will work with the panel to develop longitudinal design recommendations to implement in the 2019 SDR survey cycle. The first expert panel meeting occurred on May 15, 2017, and focused on educating the expert panel about the history and design of the SDR since 1973 and developing a road map for the next four meetings. Their initial findings and recommendations will be presented to a wide number of stakeholders in a Human Resources Expert Panel (HREP) meeting to take place on August 28, 2017. The panel of four experts will meet at least once after that meeting to discuss the results of that meeting and further work toward a final set of recommendations for inclusion in the 2019 SDR survey cycle.

Panel activities  
The May meeting discussed four longitudinal design options: fixed panel plus births, rotating panels, split panels, and cohort panels. Members also discussed two ad hoc proposed designs that had been submitted by a stakeholder to bring back more sampled cases from the 2013 SDR panel into the 2019 SDR survey cycle. Each expert panel member will review one of the four options, considering the following questions.

- What types of longitudinal designs are appropriate and cost effective for a survey with the primary goal of cross-sectional estimates and a secondary goal of longitudinal data?
- What types of longitudinal designs are flexible enough to allow for the inclusion of multiple panels consisting of desired subpopulations?
- What types of requirements for sample allocations are needed to ensure the sample size of a given panel is adequate for longitudinal studies?
- What types of longitudinal designs can maintain fixed sample sizes if required?
- How do we communicate the benefits and limitations of using the longitudinal component of the survey?

Only one ad hoc design will be investigated – the one that suggested the oversampling of previous respondents. Further data analysis including a non-response bias analysis with some simulation will be conducted to evaluate this ad hoc design. The other proposed ad hoc design suggested replacing randomly drawn sample members with previous respondents based on basic demographics; however, this violates probability sampling principles and will not be pursued.

Recognizing that the cross-sectional estimates are the primary goal, design options may consider different levels of resolution at the fine field level. Options may also consider not bringing forward panel members from before 2015 and focus on just the 2015, and soon to be 2017, panel members. The expert panel will explore how long a sample panel needs to be followed as well as which stages in a respondent’s career may be of most interest to stakeholders. In addition, the expert panel will consider the possibility that the sample size will need to be reduced in the future.
Stakeholder input
NCSES and the expert panel members are interested in specific information about how stakeholders currently use the SDR data to inform their work including:

- Types of estimates used in their work and how this will change in the future.
- Research concentrations including specific life and career events being investigated and expected probability of those events.
- Length of time of follow-up needed for their analyses and/or career stage of interest for their analyses.
- Subpopulations of interest.
- Sample size needs.
- Weighting needs.
- Required estimation precision.

To meet this need, NCSES will request input from SDR stakeholders on how they use SDR data.

Roadmap
The expert panel will meet monthly in Arlington, VA. NCSES and NORC, the current SDR survey contractor, will provide the expert panel with any data and analysis that they require to meet their charge. SRI will provide meeting and logistical support. The June meeting will focus on drafting the longitudinal design requirements and initial evaluation of the design options. In July, the panel will continue with these analyses, discuss sample allocation, and outline simulation needs. The August meeting will finalize the initial findings and recommendations for the larger HREP meeting. In September, the panel will review feedback from the larger meeting, compare the advantages and limitations of the design options, and work toward a final set of recommendations for inclusion in the 2019 SDR survey cycle. Throughout the course of the expert panel’s work, meeting summaries will be shared with stakeholders.