

Changes in the 2010 SDR Methodology

Summary of Methodological Changes in the 2010 Survey of Doctorate Recipients

Change in Survey Scope

The 2003, 2006 and 2008 rounds of SDR included a supplemental, experimental sample of non-U. S. citizens who indicated on the Survey of Earned Doctorates (SED) that they intended to leave the U. S. upon graduation, which was designated as the International Survey of Doctorate Recipients (ISDR). Previously such individuals were considered out-of-scope of the SDR and excluded from the SDR sample frame. The goal of the ISDR was to explore whether it were feasible to locate such individuals and have them complete the SDR instrument. The results of these rounds were very positive:

- Locating improved over each round as SRS and its contractor gained further experience
- Response rates improved over each cycle
- The process revealed coverage gaps in SDR that could be improved with the ISDR
- The process also revealed that a substantial number of foreign nationals who responded to the SED that they did not intend to stay in the U.S were found to be residing in the U.S. within a few years of receiving their doctorate

In 2003, 2006 and 2008 the samples for the SDR and the ISDR were drawn separately and the stratification variables for selecting the ISDR sample were different from those used for the SDR. That will not be the case in 2010, when the same sample stratification variables will be used for the SDR and the ISDR, those traditionally used by SDR.

For 2010, the sample will be drawn to include in the new cohort sample frame all those receiving research PhDs from U.S. institutions in AY 2008-9 regardless of plans to leave the U.S. Thus, the sample will cover all U.S. educated research PhDs with two components, those in the U.S. now referred to as the National Survey of College Graduates (NSDR) and those abroad, the ISDR.

The sample design will be an integrated design that will minimize the design effect differences between NSDR and ISDR samples. This will minimize the impact on NSDR variances of misclassified sample members, e.g., those sampled in the ISDR who turn out to be residing in the U.S. In addition, U.S. citizens residing outside the U.S. will be included in the estimates of those residing abroad; in the past they have been classified as out-of-scope for the SDR and were not included in the ISDR.

The integrated design will address two previous coverage issues in the NSDR and the ISDR. Previously excluded from estimates of U.S. trained S&E doctorate holders in the U.S. were foreign nationals responding to the SED that they were not planning to stay in the U.S. who actually did stay in the U.S. or who left but then returned to the U.S. at a later time. Excluded from the ISDR were U.S. citizens who chose to work abroad at some point after receiving a doctorate from a U.S. university. While the remedying of these coverage gaps is a major benefit to the new design, it could pose difficulties in maintaining time trends with the change in coverage. However, it will be possible to derive estimates using the 2010 sample that will be comparable to the previous estimates in terms of coverage of the target population.

There will be a slight bias in coverage of foreign nationals that will dampen over time since prior to the 2003 SDR survey round:

- Non U.S. citizens who indicated in their response to the SED that they were not going to stay in the U.S. were not included in the SDR sample frame

- Non U.S, citizens included in the sample who were found to be living outside the U.S. were dropped from the sample.

SRS and the survey contractor have determined that is not feasible to go back and attempt to capture this population.