



NSF/NCSES's Data on Scientists and Engineers

The data on scientists and engineers from the National Center for Science and Engineering Statistics within the National Science Foundation provide detailed employment, education, and demographic information for scientists and engineers under age 76 residing in the United States. Scientists and engineers are defined as individuals who have college degrees in S&E or S&E-related fields or who have only a non-S&E degree at the bachelor's level or higher and are working in S&E or S&E-related occupations. (See Table 3-2 for definitions of S&E and S&E-related occupations.) Unless otherwise noted, this chapter uses the term "scientists and engineers" to refer to this broad definition and the term "college graduates" to refer to the population with at least a bachelor's degree. The data available on scientists and engineers are collected by two large demographic and workforce surveys of individuals conducted by NCSES: the National Survey of College Graduates (NSCG) and the Survey of Doctorate Recipients (SDR).

The NSCG and SDR provide the most comprehensive information about the size and characteristics of the S&E workforce. As a result, information obtained through these surveys is critically important to understand the education and employment patterns of scientists and engineers. Because the NSCG covers the entire population of college graduates residing in the United States, this survey provides information on individuals educated or employed in S&E fields as well as those educated or employed in non-S&E fields. The data presented in this chapter for all scientists and engineers and for all college graduates (regardless of S&E background) are mostly based on the NSCG.

Whereas NSCG data cover the general college-educated population, the SDR data provide information on scientists and engineers who earned their research doctoral degree in a science, engineering, or health (SEH) field from a U.S. academic institution. The SDR is a biennial survey that has been conducted since 1973; it is a unique source of information on educational and occupational achievements and career movements of the nation's doctoral scientists and engineers. Some data presented in this chapter for doctoral scientists and engineers are based on the SDR.

In prior editions of *Science and Engineering Indicators*, an integrated data system, the Scientists and Engineers Statistical Data System (SESTAT), was used as the main source of data within this chapter. SESTAT was formed through the integration of the NSCG, SDR, and the National Survey of Recent College Graduates (NSRCG), with the NSRCG providing data on recent bachelor's and master's degree recipients in S&E fields.

Recent sample design improvements to the NSCG increased the survey's population coverage of recent college graduates and eliminated the need for the NSRCG. In addition, the SDR recently expanded its sample to allow for the evaluation of employment characteristics at the fine field of study level for the first time. These recent survey changes provided an opportunity to use the NSCG and SDR data individually for this chapter.