

## ABSTRACT OF

## The 2018 National Survey of Science and Mathematics Education (NSSME)

- Horizon Research, Inc., a research firm that specializes in work related to science, technology, engineering, and mathematics (STEM) education, is conducting the 2018 National Survey of Science and Mathematics Education (NSSME) with a grant from the National Science Foundation. Westat, a social science research firm, is contacting districts and schools and identifying school coordinators under contract to Horizon Research, Inc.
- The Institutional Review Boards (IRBs) for Horizon Research, Inc. and Westat, Inc. have reviewed and approved the NSSME study. Horizon Research, Inc. is the IRB of record for this study.
- Horizon Research, Inc. (HRI) is conducting this study in response to numerous requests for information regarding the status of K–12 STEM education in the United States. HRI has conducted the NSSME study for the past several decades through a grant from the National Science Foundation. The study provides data about the status of elementary and secondary science and mathematics in the U.S. at intervals since 1977, most recently in 2012. The results of these surveys are disseminated in reports, journal articles, and numerous presentations to organizations and policy maker groups, including the Congressional Committees that oversee science and mathematics education. The current study is critical in maintaining the time series to assess changes over time on key elements of mathematics and science education in the U.S. The current cycle will expand its focus to include computer science and engineering education. The study will provide data to monitor trends, report on emerging policy issues, delve deeper in key areas, and gauge the prevalence of key teacher status variables.
- The 2018 NSSME has a two-stage sample design. The first stage is a nationally representative sample of public and private schools, and the second stage is a nationally representative sample of science, mathematics, and computer science teachers in grades K−12, with an average of eight teachers selected from each school. The sample design follows statistically proven techniques. Teachers will be sampled from lists provided by participating schools. If a sampled school declines to participate in the study, a backup school will be asked to participate. A sampled school's replacement school may be in the same district or in a different district.
- Any special requirements that districts have for approval of surveys will be met before schools are contacted. The data collection phase is September 2017 to May 2018. Principals of sampled schools will be asked to designate a school coordinator to provide assistance during data collection. Coordinators will be asked to submit a list of science, mathematics, and computer science teachers to be used for sampling; identify individuals in the school to be sent the program-level questionnaires; and complete a form with information about the school demographics. Sampled teachers will be sent a letter requesting completion of the web-based questionnaire. The persons at the school most knowledgeable about the science and computer science/mathematics programs will each be asked to complete the relevant web-based program questionnaire. When allowed by the district, we will offer an honorarium to school coordinators and survey respondents in appreciation of the time and effort spent on the study.
- The information collected through the survey will be used only for statistical purposes, and individual states, districts, schools, and teachers will NOT be identified.
- Your state, district, or schools may wish to use the findings from the national data in the study reports as you discuss science and math programs that serve students in U.S. public schools. Your district will be notified when Horizon Research releases the reports.
- Because your district and the schools within your district are part of a small sample selected for the study, your cooperation is critical to make the results of this survey comprehensive, accurate, and timely. It is only through the participation of the selected districts that we can fully represent information about STEM education across all types of public schools and districts. Although voluntary, your district's participation is vital to the development of national estimates