



Classroom

Census Bureau Revamps Statistics Program for K–12 Students and Teachers

Online learning program offers interactive activities and databases to teach data analytics across all grade levels.

by Meghan Bogardus Cortez

Meghan is an associate editor with EdTech. She enjoys coffee, cats and science fiction TV.

With a little help from the U.S. Census Bureau, teachers can now start creating future statisticians and data analysts as early as kindergarten.

Earlier this month, the Census Bureau announced that they had revamped the Statistics in Schools program with hundreds of new activities and resources available for the 2016-2017 school year. The program was originally launched in 2000 (under the name Census in Schools) with the aim of teaching kids about the once-every-decade census, and the importance of being counted.

Over the last two years, the Statistics in Schools program was shaped by the Census Bureau, teachers, education standards experts, and data analysts to redesign the program so it fit more with the current classroom — with 1:1 computers and Common Core Standards in mind.

“Understanding the value behind the numbers that measure our changing society will help the future leaders of tomorrow learn how to make data-driven decisions that shape communities for generations to come,” said Nancy Potok, deputy director and chief operating officer of the Census Bureau, in a statement announcing the revamped program.

Teaching Data Analytics in the Classroom

Recently, Big Data has become a much desired decision-making tool for many organizations — including K–12 schools and higher education institutions. The World Economic Forum, a not-for-profit public interest foundation that promotes public-private cooperation, reports that the demand for individuals capable of analyzing this data will skyrocket by 2020. Thus, educating K–12 students in statistics has become key.

“The need for statistically literate citizens continues to grow as we become a more data-driven society,” said Roxy Peck, a statistics professor at Cal Poly San Luis Obispo who helped shape the Statistics in Schools program.

The Common Core Standards for Mathematics now place an emphasis on teaching statistics to middle and high school students, but they also include small amounts of stats knowledge for elementary school kids.

In a 2014 paper from *Issues in the Undergraduate Mathematics Preparation of School Teachers: The Journal*, professors from Loyola Marymount University, University of Florida, and Bemidji State University provide commentary on how to prepare elementary school teachers for statistical education.

“As the elementary grades lay the foundation for success in the later grades, it is imperative that students are introduced to statistical topics in an accurate and appropriate manner during the elementary grades, in order to be ‘statistically ready’ for the large emphasis placed on statistics in the middle and high school grades.”

In 2007, the American Statistical Association released *Guidelines for Assessment and Instruction in Statistics Education (GAISE)* that provide an outline for what elements of statistics students should learn at each grade level.

The Census Bureau’s *Statistics in Schools* program followed both the Common Core Standards and those set by GAISE to create K–12 activities in geography, social studies, history, math and sociology.

The activities — all available as free downloads from the Bureau’s website — range from a first grade survey (asking kids to compare student data like hobbies and gender) to a high school data visualization activity on U.S. population growth over the past 220 years. Tech required for the activities increases with grade level, so students in elementary school might only need paper and pencil while their high school counterparts are working in online databases.

On the website, students and teachers also have access to a number of online databases, images, videos and maps, so the potential for digital-based coursework is endless.

To access these resources and learn more, visit the *Statistics in Schools* website.

<https://edtechmagazine.com/k12/article/2016/09/census-bureau-revamps-statistics-program-k-12-students-and-teachers>