Using GIS to Steward Education Campuses and Facilities

By George Dailey, Esri Education Program Manager

When you think about GIS in education, what comes to mind? The quick response is likely geospatial learning and learners. But what about the places where the learning and the learners intersect—the world of campuses, buildings, and districts?

Despite the rise of virtual and online learning programs, there is still a prominent *where* in education. For instance, while the online Penn State World Campus site can be anywhere, there is a physical, brick-and-mortar Penn State University located in University Park, Pennsylvania (as well as nearly a score of other locations), with many buildings, much infrastructure, and a substantial geographic footprint. The point is that the use of GIS in the world of education includes the learning environment—places and spaces.

College and university campuses; school districts; and the many settings for more informal education, such as libraries, museums, gardens, and zoos, are figuratively living entities that at mission level need to support the learning and the learners. This encompasses numerous aspects of these entities, but much is housed within the physical nature of them. Campuses and educational districts grow and change and, therefore, require stewardship—planning, management, maintenance, and sustainment. Within and across all these activities, GIS technology and approaches can play vital roles.

In a recent survey we conducted among US educational institutions with Esri GIS site licenses, the respondents provided us with a snapshot of the top operational challenges facing campus executives and staff. The top three are managing infrastructure (such as underground utilities), making better use of existing facilities (including space utilization and building performance), and keeping people and property safe. A geographic perspective and geographic tools are helping address these and other related concerns across and within these entities.

Our latest e-book, *GIS in Education: Across Campuses, Inside Facilities*, provides a rich assortment of best practice examples on the application of GIS in these areas in a number of educational institutions. The articles explore the use of geospatial technology in schools, higher education, and informal settings covering desktop, server, and mobile GIS applications. These stories are organized into three groups—planning and portfolio management; operations and maintenance; and security, compliance, and sustainment—based on each article's dominant theme.

Given the recognition and broadening use of GIS in the operation of educational campuses and facilities, we are already envisioning the next edition of this e-book. We invite our readers to share their experiences and stories with us. Please feel free to contact me directly, and thank you for helping strengthen the use of GIS in an interdependent web of learning, learners, and learning environments.

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