

## *Developing the 21<sup>st</sup> Century Geospatial Workforce*

America is facing an impending crisis. The average age of a surveyor in the U.S. is 58. Surveyors are retiring and leaving the workforce faster than the new generation is entering. The number of individuals currently enrolled in 2-year or 4-year degree programs in surveying and related geospatial curricula, those sitting for state licensing examinations and those passing the examinations are at an unsustainable level. Moreover, colleges and universities are facing a critical shortage of American PhD instructors in surveying. Several universities that recently conducted searches for professors in the geospatial field had very few applicants and rarely are the applicants U.S. citizens or proficient in speaking English.

The geospatial community is one of the high growth workforce sectors in the U.S. economy, according to the U.S. Department of Labor. However, the demand for workers in this area is far outpacing the supply.



Surveyors and other geospatial professionals play an important part in the U.S. economy. These professionals, and support technicians, make accurate measurements of the land, structures, and natural and man-made features, as well as determine property boundaries. The geospatial workforce provides data relevant to the size, shape, contour, gravitation, location, elevation, and dimension of land and features on or near the earth's surface for engineering, land use, development, construction, environmental protection, resource management, defense, aerospace, law enforcement, public safety, homeland security, healthcare, public and private utilities, energy and other fossil and renewable resources development, IT and software/hardware development, internet tools, general business, banking, insurance, retail and marketing, as well as government agencies at all levels. Geospatial technologies now have a place in almost every market sector and industry. According to the federal government's National Geospatial Advisory Committee, as much as 90 percent of government information has a geospatial information component and up to 80 percent of the information managed by business is connected to a specific location. Geospatial jobs are high paying, high tech, and high quality - the type of jobs the U.S. economy must continue to create and maintain as the information society and knowledge-based economy evolve.

According to market studies, the geospatial sector has steadily increased by 35% a year, with the commercial side growing at an incredible rate of 100% annually. The geospatial community generated approximately \$73 billion in revenues in 2011 and comprises at least 500,000 high-wage jobs. The industry is composed of geo-data providers, location-enabled device manufacturers, geoapp developers, and a growing network of geospatial experts and educators. By employees, this is roughly equivalent to the airline industry; by revenues it is approximately \$10 billion more than the U.S. paper industry. More importantly, geospatial services deliver efficiency gains in the rest of the U.S. economy that are valued at many times the size of the sector itself, creating a lasting source of competitive advantage for the U.S. Geospatial services drive \$1.6 trillion in revenue and \$1.4 trillion of cost savings, representing 15 to 20 times the size of the geospatial services community itself. Geospatial services are used on a daily basis by roughly 5.3 million U.S. workers today, over 4% of the U.S. workforce. In addition, U.S. consumers place a direct value on geospatial services at \$37 billion annually. This is recognition of the many ways geo-applications and location-enabled devices are central to our daily lives.

Future economic growth, home ownership and other important national priorities will be adversely impacted if a new generation of surveyors and mapping professionals are not recruited to enter the workforce. A partnership between government and the geospatial community is needed to develop effective recruiting strategies, create pathways to higher education and professional employment, and ensure there is adequate preparation in academia to staff university faculties and foster the continued development of 4-year degree programs.

### **ACTION REQUESTED:**

**MAPPS respectfully urges members of Congress to introduce legislation to create a public-private partnership to help assure development of the future geospatial workforce America will need to contribute to economic growth, environmental protection, preservation of property rights, home ownership and rebuilding the nation's infrastructure. For more information, contact John Byrd, MAPPS Government Affairs Manager, at [jbyrd@mapps.org](mailto:jbyrd@mapps.org) or (703) 787-6996.**