

I ndustry Snapshots

- Revenues from the public sector lead geospatial market growth and account for more than one-third of total revenue. While federal governments were among the early adopters of GIS technology, recent trends toward devolving more responsibilities to states and localities have spurred those entities to become important consumers of GIS. While industries in the regulated sector, such as utilities, telecommunications, transportation and education, are the largest consumers of GIS/geospatial solutions, private-sector growth remains dependent upon business adoption based on the added-value these technologies provide. (Daratech, GIS/Geospatial Markets and Opportunities)
- Geospatial products and specialists are expected to play a large role in homeland security activities. Information gathering needs to protect critical infrastructure have resulted in an enormous increase in the demand for such skills and jobs. (Lorraine Castro, NIMA Human Resources Department)
- Because the uses for geospatial technology are so widespread and diverse, the market is growing at an annual rate of almost 35 percent, with the commercial subsection of the market expanding at the rate of 100 percent each year. (Geospatial Information & Technology Association)

High Growth INDUSTRY PROFILE

W orkforce Issues

Skills, Competencies, and Training

Emerging occupations within the geospatial technology industry require developing competency models for new applications of geospatial technology. Aligning training in geospatial applications with industry developed competency models is essential to developing the necessary pipeline of skilled workers. This approach is necessary for preparing entry-level workers with basic skills to ensure career success.

Increasing demand for readily available, consistent, accurate, complete and current geographic information and the widespread availability and use of advanced technologies offer great job opportunities for people with many different talents and educational backgrounds. (U.S. Geological Survey and U.S. Bureau of Labor Statistics)

Image and Outreach to the Public

The public is not aware of the necessary skill sets and competencies needed to prepare for the diverse career opportunities available within the geospatial technology industry. Reaching an industry-wide consensus that defines "geospatial," its technologies and its applications is of utmost

importance. There is also a need for better industry promotion by creating a national image campaign that raises awareness about the industry and dispels stereotypes and misperceptions.

Pipeline

In order to meet industry growth requirements employers need to examine alternatives to the traditional pipeline. These alternatives include recruiting young workers through apprenticeship and high school/college dual-enrollment-dual-credit agreements as well as tapping nontraditional labor pools to diversify the workforce.

S kill Sets

(Source: ASPRS: *The Imaging and Geospatial Information Society*)

- College preparatory courses that emphasize the sciences are suggested for individuals interested in pursuing careers in photogrammetry, remote sensing and geographic information systems (GIS).

- For individuals who do not wish to pursue an advanced degree, there is a substantial demand for technicians in geospatial information technology. Many 2-year academic and technical institutions offer education and training in photogrammetry, remote sensing and GIS and related fields. Associate degree and certificate programs in GIS, surveying, photogrammetry and similar curricula provide a sound foundation for work experience or for transfer to other academic institutions for further education.
- It is highly recommended that any individual wishing to pursue a career in photogrammetry, remote sensing and GIS participate in an internship program to obtain hands-on experience as part of their preparation for employment, in addition to formal education.

E TA in Action

In June 2003, ETA announced the President's High Growth Job Training Initiative to engage businesses with local education providers and the local/regional workforce investment system to find solutions that address changing talent development needs in various industries.

In October 2005, the Community-Based Job Training Grants were announced to improve the role of community colleges in providing affordable, flexible and accessible education for the nation's workforce.

ETA is investing more than \$260 million in 26 different regions across the United States in support of the WIRED

(Workforce Innovation in Regional Economic Development) Initiative. Through WIRED, local leaders design and implement strategic approaches to regional economic development and job growth. WIRED focuses on catalyzing the creation of high skill, high wage opportunities for American workers through an integrated approach to economic and talent development.

These initiatives reinforce ETA's commitment to transform the workforce system through engaging business, education, state and local governments, and other federal agencies with the goal of creating a skilled workforce to meet the dynamic needs of today's economy.

I nvestments

ETA has invested over \$8,367,110 in the geospatial industry. This includes six High Growth Job Training Initiative grants totaling \$6,438,653 and one multi-industry Community-Based Job Training Grant totaling \$1,928,457. Leveraged resources from all of the grantees total \$7,132,543.

R esources

For additional background information about the industry and details on the grants, information about employment and training opportunities and workforce development tools for employers, educators and workforce professionals, please visit: www.doleta.gov/BRG, www.careervoyages.gov, www.careeronestop.org, and www.workforce3one.org.