

NGAC Geospatial Workforce Development Strategy Paper – DRAFT

Strategy: To enhance the visibility and recognition of the Geospatial professional as a vital element of an organization's workforce; to identify educational and training best practices and explore new research avenues for effective workforce development; and to build resources and capability within the Geospatial profession that will enable leaders, managers and organizations to successfully attract, recruit, train and retain talented and skilled Geospatial professionals.

The United States is a world leader in geospatial technology and research, an area that represents many billions of dollars of the US economy. This high-growth, high-technology industry acquires, manages, analyzes, integrates, maps, distributes, and uses geographic, temporal, and spatially based information and knowledge to fuel major sectors of the US economy. The industry includes research, technology development, education, and applications to address the planning, decision-making, and operational needs of people and organizations of all types.

This vital industry faces a serious workforce development challenge. A shortage of qualified and skilled workers exists to meet the demands of this fast growing industry. Efforts must be undertaken across all levels of government, private sector, academic community, and professional associations to prepare workers to take advantage of new Geospatial job opportunities in high demand and economically vital sectors of the American economy.

Establishing an effective Geospatial job market requires a direct connection between the employer's job requirements and the Geospatial skills of the workforce. Determining the competencies that employers require in order to satisfy their business needs in the Geospatial industry is critical. A competency-based approach for defining required skills becomes necessary in technology-based occupations such as the geospatial profession. Solving these workforce issues requires new methods, practices, partnerships, and outreach for this high growth, high technology industry among industry academia and government.

Implementing the Geospatial Workforce Development strategy will result in a set of benefits where:

- Public awareness of geospatial technologies and their applications are raised, and to make a better connection between the geospatial industry and diverse populations of potential workers;
- Public and private organizations can build partnerships with educational institutions at all levels for creating effective and efficient Geospatial training and education, and recruitment programs;
- Commercial, academic, nonprofit organizations, and all levels of government use a common set of Geospatial competencies to support systematic Geospatial learning and development of training and education programs and curricula;
- Effective and compelling public outreach programs and informational materials about the Geospatial profession are distributed through existing DOL-supported education and information channels;
- A set of skills standards describe the kinds of workers needed in the geospatial industry; improve employee recruitment and selection; and design geospatial information technology;

These direct and indirect benefits ultimately work to better align educational, employment, and workforce development programs with employers' labor needs, ultimately providing public and private organizations with the knowledge and skills employees need to be successful.