

# **Skill Standards for GIS Technician Training**

Dr. Phillip Davis  
Del Mar College  
Corpus Christi, Texas

---

# Agenda

- Describe the TSSB
- Define the need for skill standards
- Review the TSSB process
- Demonstrate the results
- Examine potential future research
- Role of UCGIS
- Explore the National Geospatial Technology Center proposal

# Texas Skill Standards Board

The TSSB was established by the Texas Legislature in 1995 as an 11-member advisory board to the Governor and the Legislature. The members, who are appointed by the Governor, consist of:

- 7 business and industry representatives
- 2 labor representatives
- 1 secondary education representative
- 1 postsecondary education representative

## **Mission**

The Board is charged with the development of a statewide system of industry-defined and industry-recognized skill standards for major skilled, sub-baccalaureate occupations with strong employment and earnings opportunities.

# What are Skill Standards?

- The purpose of skill standards is to document the skills, knowledge, and performance standards that employers require from their workers, and to communicate that information to education and training providers.
- Skill standards are an ideal source of the industry-driven skills, knowledge, and outcomes required for competency-based curricula within Texas-based community and technical colleges.

# What are Skill Standards?

- Describe both the work itself (duties and tasks) and the worker characteristics (the skills and knowledge required to competently perform the work)
- Are for sub-baccalaureate occupations with strong employment and earnings opportunities.
- Are tools for communicating industry-required worker skills to education and training providers.

# Need for Standard

- GIS is rapidly changing technology with no widely recognized industry standards.
- Community college students must be immediately employable upon graduation.
- Texas requires community college vocation programs to utilize industry advisors.
- Number of different schools using different curriculums.

# Major Steps in TSSB

1. **Identify the Occupation and Reviewing Resources**
2. **Assemble the Industry Technical Advisory Committee (ITAC)**
3. **Determine Existing Information Sources Pertinent to the Proposed Skill Standards**

# Major Steps

- 4. Determine the Skill Standards Development Project Plan, Method of Job Analysis, and Strategy for Validation**
- 5. Develop Work-Oriented Information**
- 6. Develop Worker-Oriented Information and Statements of Assessment**
- 7. Synthesize and Organize Data**

# TSSB Process

1. Convene original industry panel as ITAC (a.s.a.p.).
2. Nominate ITAC Chair.
3. File NOI with TSSB.
4. Determine skill standards equivalencies.
5. Aggregate tasks into Key Activities, as needed.
6. Enter job analysis data into TSSB Skill Builder database.
7. Reconvene industry panel/SMEs to obtain any missing elements.
8. Enter rest of data into TSSB Skill Builder Database.
9. Send copy of skill standards to TSSB for review.

# Results

- Texas Skill Standards for GIS Technician
- Recognition of TSSB Skill Standard for GIS with \$15,000 award for student scholarship
- GIS Technician Skill Standards Database

# Future Efforts

- Research proposal with UCGIS: “Delineating Curricular Pathways through the GIS&T Body of Knowledge” an NSF project proposal.
- National Geospatial Technology Center (NGTC), a four year NSF proposal for a \$5M Center of Excellence

# Collaboration with UCGIS

- David DiBase is named senior research on the NGTC grant.
- Utilize the UCGIS BoK at the master template for community college curriculum efforts moving forward in 2008.
- Perform 5 regional DACUMs across the US in 2008.
- Synthesize results into a national model in 2009.

# Contact Information

- Dr. Phillip Davis, Professor Computer Science, Del Mar College
- [pdavis@delmar.edu](mailto:pdavis@delmar.edu)
- 361.698.1126
- <http://gistech.delmar.edu>
- <http://igett.delmar.edu>
- <http://www.tssb.org>