

# *Texas Skill Standards Board*



## *1997-98 Annual Report to*

George W. Bush  
Governor

Pete Laney  
Speaker of the House

Rick Perry  
Lieutenant Governor

Jean Mitchell  
Director, Workforce Development Division  
Texas Workforce Commission

# Members of the Texas Skill Standards Board

---

## Representing Business

### *Chair*

Billie C. Pickard  
Owner  
Pickard & Co.  
Raymondville, Texas

Gary Forrest Blagg  
Owner  
Blagg Tire & Service, Inc.  
Grapevine, Texas

Michael L. Brown  
President & CEO  
Skillsnet Corporation  
Waxahachie, Texas

James E. Mitchell  
President & CEO  
Sierra Microwave Technology  
Georgetown, Texas

D. Wayne Mixon  
President & CEO  
Ocho Gin Company  
Seminole, Texas

Fernando Reyes, Jr.  
President  
Reyes Industries, Inc.  
San Antonio, Texas

Wayne J. Oswald  
Maintenance Process Leader  
Dow Chemical Company  
Freeport, Texas

## Representing Labor

Denise Laman  
Computer Graphics Programmer  
Plano, Texas

Edward L. McGowen, Jr.  
Vice President  
IUOE Local 450  
Houston, Texas

## Representing Secondary Education

Beth Ann Rogers  
Librarian  
Austin Independent School District  
Austin, Texas

## Representing Post-Secondary Education

Ramon H. Dovalina, Ph.D  
President  
Laredo Community College  
Laredo, Texas

# Table of Contents

---

Legislative Charge and Major Accomplishments.....	1
• Legislative Charge and Background	
• Major Accomplishments in 1997-1998	
Organizational Structure and Policies for Standards Development and Recognition.....	4
• Role of Partnerships in Statewide Standards System	
• Role of Coordinating Board-Funded Industry Committees	
• Interim Guidelines for Skill Standards Recognition	
• Development and Recognition Process	
Major Challenges for 1998-99 and Beyond.....	10
• Major Challenges and Initiatives for the TSSB	
Appendices.....	12

# Legislative Charge and Major Accomplishments

---

*“In its first year, the Board adopted the Texas Skill Standards Infrastructure.”*

## **Legislative Charge and Background**

The Texas Skill Standards Board (TSSB) was established by the 74<sup>th</sup> Legislature under House Bill 1863. It is an advisory board to the Governor and the Legislature on the development of a statewide system of industry-defined and industry-recognized skill standards and credentials for all major skilled occupations that: 1) provide strong employment and earnings opportunities; and 2) require less than a baccalaureate degree. The Board was charged with four mandates:

- 1) validate nationally-established skill standards to guide curriculum development, training, assessment, and certification of workforce skills;
- 2) convene industry groups to develop skill standards and certification procedures for industries and occupations in which standards have not been established or adopted;
- 3) review standards developed by other states and nations and enter into agreements for mutual recognition of credentials to enhance portability of skills; and
- 4) promote the use of standards and credentials among employers.

The TSSB received no state appropriations. House Bill 1863 designated the Texas Council on Workforce and Economic Competitiveness (TCWEC) to provide staff support to the Board. Governor Bush appointed the 11-member Board composed of representatives of business, labor, secondary and postsecondary education in March 1996. The TSSB was initially convened in August 1996.

In its first year, the Board adopted the Texas Skill Standards Infrastructure (TSSI). TSSI is a six-step, systematic process for the development, usage and

---

*“TSSB awarded Certificates of Recognition to six Texas industry partnerships for their leadership in skill standards identification.”*

maintenance of skill standards by industry-driven, private-public partnerships. (See Appendix 1.) The TSSI provides common criteria and language for a statewide skill standards system by utilizing a job analysis methodology for identifying skill requirements of occupations.

#### **Major Accomplishments in 1997-1998**

The TSSB spent its second year building employer support and momentum for the development of skill standards. It also developed initial criteria for recognition of industry-defined skill standards. Given the lack of state appropriations, the TSSB also needed to identify and establish partnerships for the funding and development of skill standards by industry. The major accomplishments include the following:

- *Statewide Skills Summit*  
TSSB sponsored with the National Skill Standards Board (NSSB) a skills summit in Dallas. The summit convened

approximately 200 industry, education and government partners to plan and develop strategies for the establishment of a statewide skill standards system. TSSB awarded Certificates of Recognition to six Texas industry partnerships for their leadership in skill standards identification.

- *Interim Guidelines for Skill Standards Recognition*  
TSSB adopted interim guidelines and an application process for developing and recognizing industry-defined skill standards systems.
- *Occupational Parameters of Statewide Skill Standards System*  
TSSB identified the “major skilled occupations” for which it is required to develop a statewide system of

---

*“TSSB conditionally recognized the first sets of skill standards developed by industry committees for four occupations.”*

industry-defined and industry-recognized skill standards. Using labor market information, the TSSB defined the legislative criteria, “strong employment and earnings opportunities,” and generated a list of sub-baccalaureate occupations meeting that criteria. A priority list of occupations was also produced for which the staff would concentrate its limited resources on building industry support.

- *Partnership with Workforce Skills Coalition*  
TSSB entered into a public-private partnership to establish a project and funding clearinghouse for the development of skill standards by industry groups.
- *Partnership with Coordinating Board*  
TSSB established a partnership with the Texas Higher Education Coordinating Board to fund the development of

skill standards by industry groups.

- *Occupational Skill Standards Recognition*  
TSSB conditionally recognized the first sets of skill standards developed by industry committees for four occupations. Those occupations are: Telecommunications Maintenance Technician; Heating, Ventilation and Air Conditioning Technician; Heavy Equipment Maintenance Technician; and Corrections Officer.

# Organizational Structure and Policies for Standards Development and Recognition

---

*“At the local and regional levels, community and technical college and university staff have facilitated skill standards development by industry groups.”*

## **Role of Partnerships in Statewide Standards System**

Since its inception, the Texas Skill Standards Board (TSSB) has needed to work in partnership with other state and local entities to provide in-kind resources and funding to build a statewide skill standards system.

At the state level, the Texas Council on Workforce and Economic Competitiveness (TCWEC) has provided the TSSB with a minimal operating budget and staff. For the past two years, the Texas Higher Education Coordinating Board (Coordinating Board) has been an invaluable partner with the TSSB in funding the development of new skill standards by industry committees.

At the local and regional levels, community and technical college and university staff have facilitated skill standards development by industry groups. Business and industry have devoted countless staff hours and expertise.

This year, the TSSB explored the establishment of an organizational structure that will provide an independent funding clearinghouse for industry development of skill standards across the state. At its May 1998 meeting, the TSSB authorized the Chair to sign a Memorandum of Agreement (MOA) with the Chancellor of the A&M University System. The MOA states that the TSSB is committed to work with the A&M System’s Office of Strategic Technology Initiatives to organize the Texas Workforce Skills Coalition as an industry-led private/public partnership.

## **Role of Coordinating Board-Funded Industry Committees**

In the absence of state appropriations to fund skill standards development, the TSSB has relied on its partnership with the Texas Higher Education Coordinating Board. In each of the past two years, the Coordinating Board has provided funding to community and technical

---

*The industry committees in each of these six occupational areas took the roles of Industry Technical Advisory Committees (ITACs) under the TSSI development and recognition process.”*

colleges to facilitate the development of skill standards by industry committees. (See Appendices 2-5 for list of project staff and membership of committees.)

The industry committees were composed of representatives of companies that agreed on the need to cooperate in developing common skill standards for an occupation critical to the economic competitiveness of their industry and the state of Texas. The membership on the industry committee represented varying sized companies, different geographical regions of the state, and the range of industries employing in the occupational area. Although the majority of the members on each of the committees was from industry, labor and education were also represented.

The Coordinating Board has funded skill standards development for six occupations to date. In 1996-97, a skill standards methodology was piloted for the following three occupations: Heating, Ventilation, and Air Conditioning Technician;

Corrections Officer; and Heavy Equipment Maintenance Technician.

In 1997-98, three more occupations were funded using the Texas Skill Standards Infrastructure (TSSI) process approved by the TSSB:

Telecommunications Maintenance Technician (including Fiber Optics), Hazardous Materials Management Technology, and Machinist.

The industry committees in each of these six occupational areas took the roles of Industry Technical Advisory Committees (ITACs) under the TSSI development and recognition process described on the following pages. The ITACs assumed the major responsibility for:

- identifying and/or validating skill standards for the occupation;
- developing a plan for updating and maintaining the skill standards; and
- submitting the skill standards to the TSSB for recognition.



---

*“These standards should include both basic and workplace skills, knowledges and abilities...”*

### **Interim Guidelines for Skill Standards Recognition**

House Bill 1863 established the TSSB as an advisory body. It granted the TSSB authority to convene industry groups to develop skill standards; to recognize industry-defined standards; and to promote the use of standards and credentials among employers. The statute did not authorize the TSSB to *endorse* skill standards; however, some form of validation is necessary before the TSSB promotes the use of particular skill standards.

In May 1998, the TSSB adopted interim guidelines, based on the Texas Skill Standards Infrastructure (TSSI) methodology, for recognition of skill standards. These guidelines were developed to enable the Coordinating Board-funded industry groups (previously listed) to present their skill standards this year to the TSSB for recognition. These industry groups, with the assistance of at least one community or technical college, utilized the TSSB’s TSSI methodology to develop their skill standards.

The interim guidelines consist of the following criteria for reviewing industry committees’ skill standards for TSSB recognition:

- *Skill Standards Common Criteria*

Skill standards must be defined utilizing the substantive, procedural and criteria recommendations of the TSSI to ensure scientific validity and common language. These standards should include both basic and workplace skills, knowledges and abilities, as specified by the TSSI. Skill standards developed through alternative methods must be demonstrated to be scientifically valid, legally appropriate and translated to the TSSI criteria.

- *Industry-Driven Validation Process*

Skill standards must be formally submitted to the TSSB by a predominately industry group. The industry group must include employers of a substantial percentage of Texas employees in the

---

*“The skill standards and certification procedures being presented must be industry-defined, industry-validated, and industry-recognized.”*

occupation addressed. The skill standards and certification procedures being presented must be industry-defined, industry-validated, and industry-recognized.

- *Public Domain Repository*  
The requesting industry group must agree in writing to deposit the skill standards with a TSSB-recognized repository where the standards will become public domain.
- *Updating and Maintenance Plan*  
The industry group requesting TSSB recognition must agree to maintain the skill standards and show its plan to do so.

#### **Development and Recognition Process**

TSSB adopted the following skill standards development and recognition process outlined in the Texas Skill Standards Infrastructure.

*Step 1. Establish Industry Technical Advisory Committee.* A predominately

industry committee, with representation across the occupational field by geographic area, company-size, and industry-sector, meets with the staff project director. The committee establishes goals and objectives and reviews labor market information for selected occupations critical for its industry and the state of Texas.

*Step 2. Perform Job Analysis Using Subject Matter Experts.* Groups of subject matter experts (SMEs) or front-line workers, nominated by the Industry Technical Advisory Committee, generate and edit a list of tasks and related tools needed to perform the occupation. The staff project director and industry expert then link basic and workplace skills, knowledge and abilities to each task.

*Step 3. Distribute Skill and Task Survey Across the Industry for Validation.* A survey to validate the tasks and skills generated by the SME groups is administered across the industry to front-line workers in the occupation. The survey asks

---

*“The ITAC ratifies the skill standards and submits an application to TSSB for formal recognition.”*

respondents to rate the level of skills, knowledge and abilities required to perform on the job and to rate the degree of importance and difficulty of the tasks.

*Step 4. Industry Technical Advisory Committee Reviews and Submits Skill Standards to TSSB for Recognition.*

Industry Technical Advisory Committee (ITAC) meets to review the survey data which has been analyzed, sorted and formatted by staff project director and industry expert. ITAC ratifies the skill standards and submits an application to TSSB for formal recognition.

*Step 5. TSSB Conducts Recognition Review.* TSSB reviews the skill standards and accompanying application against interim guidelines criteria prior to determining the recognition status of the product. The ITAC chair and the project director present the material at the appropriate TSSB meeting for recognition.

## Development and Recognition Process Chart

**Step 1.**  
*Establish Industry Technical  
Advisory Committee (ITAC).*

**Step 2.**  
*Perform Job Analysis  
Using Subject Matter  
Experts.*

**Step 3.**  
*Distribute Skill and Task  
Survey Across the  
Industry for Validation.*

**Step 4.**  
*Industry Technical Advisory  
Committee Reviews and  
Submits Skill Standards to  
TSSB for Recognition.*

**Step 5.**  
*TSSB Conducts Recognition  
Review.*

*“The challenge to establish a statewide repository which will provide access to the standards for business and industry, education, workers and the public is a next critical step.”*

### **Major Challenges and Initiatives for the TSSB**

Operating with no state appropriations, the Texas Skill Standards Board this year recognized the first sets of Texas skill standards. The TSSB successfully addressed this challenge by leveraging other sources of funding and working with state and local partners and industry groups. Major challenges still to address include the following:

#### *Implementing Workforce Skills Coalition*

The TSSB has agreed to work with Texas A&M University to organize the Texas Workforce Skills Coalition. The challenge remains to establish this organizational entity to provide a funding clearinghouse for industry to be able to develop skill standards.

#### *Developing Permanent Recognition Guidelines*

The TSSB developed interim guidelines for recognizing skill standards for occupations that have no

existing skill standards. The TSSB will need to develop permanent recognition guidelines to recognize new, or validate existing, skill standards at the regional, state and national levels.

#### *Establishing Statewide Repository*

The TSSB has recognized statewide skill standards for four occupations essential to the competitiveness of the Texas economy. The challenge to establish a statewide repository which will provide access to the standards for business and industry, education, workers and the public is a next critical step.

#### *Seeking Formal Recognition for Industry*

The TSSB has conditionally recognized industry skill standards this year in accordance with its statutory responsibility to validate and promote skill standards. Explicit legislative language to recognize standards may assist the TSSB in meeting the request of industry groups for formal recognition.

---

*“Reviewing and aligning skill standards across states and the nation to ensure portability of credentials is a continuing challenge.”*

*Coordinating National and State Efforts*

The TSSB has been successful in following the progress of, and conducting initial discussions and meetings with, other leading states and the National Skill Standards Board. Reviewing and aligning skill standards across states and the nation to ensure portability of credentials is a continuing challenge.

*Promoting Standards Among Employers*

The TSSB has gained the support and commitment of leading business and industry organizations in developing and promoting standards. The TSSB will need to develop a comprehensive marketing plan to build widespread industry involvement and promote standards development and usage among employers.

*Promoting Standards Within the Workforce Development System*

The TSSB has had initial discussion with local workforce development boards staff in Texas. The

Texas Higher Education Coordinating Board has already begun projects for the development of curriculum based on the skill standards it has funded. Promoting and integrating skill standards within the broader workforce development system will be one of the TSSB’s upcoming challenges.

*Addressing the Issues of Assessment and Credentialing*

TSSB members participated this year with other leading states and the National Skill Standards Board in a national summit on the complex topics of assessment and credentialing. The TSSB will need to address this next step in building a skill standards and credentials system for the state of Texas.

# Texas Skill Standards Infrastructure (TSSI)

TSSB Primary Role : "Leadership & Stability"

Industry-Driven Public/Private Partnership

Stakeholder Mix

Sequential Steps

1 Frame The Skills Landscape	2 Data Collection/ Validation	3 TSSB Recognition	4 Skills Management System	5 Training/ Education Delivery	Assessment
---------------------------------	----------------------------------	-----------------------	-------------------------------	-----------------------------------	------------

## TSSB & Industry Staff Roles & Responsibilities

- ◆ Define Partnership Guidelines
- ◆ TSSB Endorsement
- ◆ Resource Review / Occupation / Job Identification
- ◆ Prioritize
- ◆ Resource Matching
- ◆ Performance Goals
- ◆ ROI Requirements
- ◆ SME Meeting Preparation
- ◆ Conduct SME Meetings:
  - ◆ Industry
  - ◆ Enterprise
- ◆ Build Inventory:
  - ◆ KSAO's
  - ◆ Tasks/Duties
  - ◆ General Work Areas (GWA)
- ◆ Survey Construction
- ◆ Survey Deployment
- ◆ Data Analysis
- ◆ TSSB Submission
- ◆ Reviewer Activities
- ◆ Reviewer Report
- ◆ TSSB Recognizes
- ◆ Award/Designation
- ◆ Registration
- ◆ Partnership MOU
- ◆ Reviewer Meeting
- ◆ Reviewer Report
- ◆ TSSB Recognizes
- ◆ Award/Designation
- ◆ Registration
- ◆ Partnership MOU
- ◆ Operationalize Partnership
- ◆ Implement Plan
- ◆ Performance Measurements
- ◆ Usage Strategy
- ◆ Data Storage
- ◆ Structure/Format
- ◆ Update Strategy
- ◆ Best Practices
- ◆ Skill Acquisition Needs
- ◆ Delivery System
- ◆ Traditional
- ◆ Non-Traditional
- ◆ Content Resource
- ◆ Learning Plans
- ◆ Vendor Selection
- ◆ TED Validation
- ◆ Recruitment
- ◆ Rates
- ◆ Performance
- ◆ Impact
- ◆ Project ROI
- ◆ Follow-up
- ◆ Adjustments
- ◆ Next Steps

## Appendix 2

---

### *TELECOMMUNICATIONS MAINTENANCE TECHNICIAN SKILL STANDARDS PROJECT*

#### Industry Technical Advisory Committee

Richard Hatcher, Chair  
MCI World Com

Robert McKee  
AT&T/Lucent Technologies

Celeste Johnson  
AT&T

Ray Bombardieri  
Southwestern Bell

Chuck Morrow  
Raytheon Systems

Deborah McDonald  
TSTC/Marshall

Clyde Chiever  
DeVry Institute

Hank Payne  
Federal Aviation Administration

Joseph Tartell  
U. S. Air Force

Harris Goldenberg  
Texas State Technical  
College/Sweetwater

Gary Reynolds  
Ed-u-Tech

Danny Tice  
Nortell-BNR

Arthur Akard  
Ericsson

Ralph Rider  
GTE

Dale Whitewood  
IBM Global Services

Harry Herlin  
Nokia

Robert Holliday  
Austin Electrical JATC

Larry Sellers  
3M Telecom Systems

Larry Lawson  
Texas Engineering Extension

John Keith  
Alcatel

Paul Siglinger  
Industrial Technologies

Wayne Kube  
WFAA-TV

#### Project Directors

James Withycombe  
TSTC/Marshall

#### Project Manager

Diane Nobles  
TSTC/Marshall

#### Project Administrators

Jeanne Wesley  
TSTC/Marshall

Dr. Darrel Sandall  
Fiber Optics  
Texas A&M Univ.

Dr. Walter Stenning  
Fiber Optics  
Texas A&M Univ.



## Appendix 3

---

### *HEAVY EQUIPMENT MAINTENANCE TECHNICIAN SKILL STANDARDS PROJECT*

#### Industry Technical Advisory Committee

Larry Wright, Chair  
Service Dev. Manager  
Darr Equip. Co. (Caterpillar)

Randy Scott  
Director of Operations  
Cummins Southern Plains, Inc.

Steven Thompson  
Ag Tech Program  
John Deere/Navarro College

Lynne McKinnie  
Systems Development and  
Training Coordinator  
H. B. Zachary (Construction)

Duane L. Moushon  
District Manager, East Texas  
ROMCO Equipment Company

Ben Preston  
Career & Tech Supervisor  
Hallsville ISD

Ray Buckner  
Truck Shop Manager  
Plantation Foods, Inc.

Phillip Simmons  
Manager of Maintenance Training  
Dallas Area Rapid Transit

Dave Barbieri  
Tech Systems  
Robert E. Lee High School

Bill Byrd  
Maintenance Specialist  
Sabine Mining Company

Joe Russo  
Technical Service Manager  
Mustang Tractor & Equipment Co.

Wendell Sullivan  
Representative  
Bureau of Apprent. & Trng.

Benny Woods  
Technical Support Engineer  
Texas Utilities Mining Co.

Charles M. Rue  
General Foreman  
Maintenance Services  
Lone Star Steel Company

Bill Workman  
Training & Dev. Manager  
Holt (Caterpillar)

C. W. Hancock  
Mine Supervisor  
Norit Americas

Thomas W. Sims  
Service Support Leader  
Ryder Transportation Services

Ladayne Johnson  
Director, Career/Tech. Ed.  
Marshall ISD

Randy and Judy Smith  
Owners  
Texas Heavy Equipment Repair

Revis Parkison  
Dallas Peterbuilt

Ken Wylie  
Division Manager  
Navarro College

Les Cox  
Maintenance Superintendent  
Texas Utilities Mining Company  
Mount Pleasant

Alan Clay  
Program Director, IMM & EST  
Texas State Technical College  
Waco/Marshall

Jerry Moore  
Program Chair  
Heavy Equip.Maint  
Texas State Tech. College  
Waco/Marshall

#### Project Director

Ann Lewis  
TSTC/Marshall

#### Project Manager

Diane Nobles  
TSTC/Marshall

#### Project Administrator

Jeanne Wesley  
TSTC/Marshall

## Appendix 4

---

### HEATING, VENTILATION AND AIR CONDITIONING TECHNICIAN SKILL STANDARDS PROJECT

#### Industry Technical Advisory Committee

Josh Kahn, Chair  
Vice President  
Kahn Mechanical Contractors

James A. Carroll  
Dallas Joint Apprenticeship  
Garland, Texas

Chris Christopher  
Counselor  
Irving High School

Bob Hughs  
Project Manager  
TD Service

Jane Hanna  
Executive Director  
Construction Education Foundation

Ruby Miller  
Project Director  
Wilmer-Hutchins ISD

Richard Beaudin  
Natkin Service Company  
Dallas, Texas

Lee Rosenberg  
President and Owner  
Metro-Tech Service Co.

David Eishen  
Instructor  
Cedar Valley College

Arnold Redding  
Owner  
Arnold's A/C Service, Inc.

Bill Gregory  
President  
Gregory-Edwards, Inc.

Earle Edomm  
Instructor  
Irving High School

Stevie McCown  
Operations  
Frymire Engineering Co., Inc.

Larry Taylor  
President  
Air Rite A/C, Inc.

Larry Jeffus  
Instructor  
Eastfield College

Gary Coulson  
Assistant Service Mgr.  
Brandt Engineering

Tom Hawkins  
President  
Air Rite A/C & Refrigeration

Paul Lindsey  
Instructor  
North Lake College

Joel Kinsch  
Manager-Educator  
Lennox Industries

R. Steve Dement  
Coordinator  
Houston Area Pipefitters Local 211

James Garrity  
Instructor  
Skyline Center School

#### Project Director

Michael Gutierrez  
Dallas County CCD

#### Project Manager

Diane Nobles  
TSTC/Marshall

#### Project Administrator

Patti McGlohen  
Dallas County CCD

## Appendix 5

---

### *TEXAS CORRECTIONS OFFICER SKILL STANDARDS PROJECT*

#### **Industry Technical Advisory Committee**

Edward Laine, Chair  
Chief of Professional  
Standards & Administrative  
Operations, Texas Commission  
on Law Enforcement, Officer  
Standards & Education

Charles Godwin  
Training Coordinator  
Texas Dept. Of Criminal  
Justice  
Beville, Texas

Jerry Dowling  
Criminal Justice Center  
Sam Houston State University

Warden Bryan Vandagriff  
Ernestine Glossbrenner SAFPF  
San Diego, Texas

Craig Campbell, Director  
Professional Programs & Curriculum  
Texas Commission on Law  
Enforcement, Officer Standards  
& Education

Marcus Kenter  
Corrections Management Institute  
Criminal Justice Center  
Sam Houston State University

Lt. Betty Frey  
Training Coordinator  
Galveston County Sheriff's Department

Major Randy Clark  
Collin County Sheriff's Department  
McKinney, Texas

Shirley Jared  
Austin, Texas

Janet McNutt  
Criminal Justice Coordinator  
Blinn College  
Bryan, Texas

Earl Campa  
Dean, Montgomery College  
Conroe, Texas

Tony Zavaleta  
University of Texas  
at Brownsville

#### **Project Director**

Dr. Darrel Sandall  
Fiber Optics  
Texas A&M Univ.

#### **Project Manager**

Diane Nobles  
TSTC/Marshall

#### **Project Administrator**

Dr. Walter Stenning  
Fiber Optics  
Texas A&M Univ.



***Texas Skill Standards Board  
1100 San Jacinto, Suite 100 (78701)  
P. O. Box 2241  
Austin, Texas 78768-2241  
Voice: 512/936-8100  
Fax: 512/936-8118***