

Jointly Sponsored Training Systems In American Industries

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Introduction

This paper examines recent developments in credentialing in jointly sponsored training and qualifications systems across the United States. This paper builds on previous work on building trades joint apprenticeship and training programs, which describes their structure and activities and documents their superior performance over programs unilaterally operated by employers (Glover and Bilginsoy 2005, Glover 2007). Jointly sponsored training programs are not common in the U.S., but strong programs are found in the building trades where they serve important roles in preparing and qualifying the skilled craft workers.

Most of the joint training programs in the building trades follow a similar pattern of organization and activities. At the national level, a sector-focused national partnership bringing together labor and management coordinates and governs the overall industrial or craft training system. This is embodied in a separate joint institution that is distinct from both management and labor organizations, the national Joint Apprenticeship and Training Committee. The committee's functions include developing and maintaining current standards of the knowledge, skills and abilities needed for the covered occupations. They develop curriculum and produce instructional materials. They provide training and certification for trainers in local JATC programs through national joint training centers and training institutes. They interface or partner with universities, other research organizations and equipment /materials manufacturers that are developing the next generations of workplace technologies. They negotiate college credit arrangements for apprentices, journeymen and instructors in their training programs. They contract for research for use in developing curriculum, etc. They administer pilot projects to test and demonstrate innovative training approaches. They organize industry training seminars and conferences, review the quality and consistency of the training and certification provided by local training partnerships and maintain current information with the US Department of Labor.

At the level of the individual work place, and sometimes on a statewide or regional basis, a local JATC carries out workforce training, typically at a joint training center funded through the collective bargaining agreements by negotiated contributions for each hour worked by covered employees. The negotiated contribution to joint training funds is based on cents per hour worked in the industry. Local JATCs assure that their trainers are kept current on new industry technologies and work techniques by sending them to the national JATC's national training center and/or training program. Trainers are typically recruited from among the best craft workers in the area, with additional training provided to build their skills as trainers and course developers. Local JATCs coordinate closely with employer and customer needs as dictated by the particular circumstances of their local labor market, geography, climate, equipment, etc. They provide training for new entrants into the industry (typically, but not exclusively, relatively young workers) as

well as continuing training opportunities to update and expand the skills of experienced workers who have already reached the journeyman level. They work with community groups and educational institutions to recruit new entrants into their craft or industry, often coordinating with broader efforts of the national JATC to promote industry recruitment and image building.

Some leading examples of joint training systems in the building trades are found in electrical work, in plumbing and pipefitting, and in the masonry trades. This paper profiles training and certification in these three crafts, giving special attention to significant developments in credentialing practices.

Recent Changes in Skill Certification Procedures

Traditionally in apprenticeships, testing has been embedded in courses taken in the related classroom portion of training and supervisors have rated performance on the job. If apprentices passed the tests in related training courses and if supervisors judged performance of apprentices on the job as acceptable, apprentices were advanced to the next level. The only certification needed to work as a journeyman was a union journeyman card.

Skill certification procedures are changing, motivated by several factors. Primarily, the new skill certification procedures are required by end-users and by insurance companies. Owners of major industrial construction projects, such as Exxon-Mobil, have begun requiring that all craft workers on their worksites be certified under common standards. Similarly, architect and designers may require skill certification on selected projects. Some government agencies, such as the U.S. Department of Transportation or the Nuclear Regulatory Commission, require documentation of skill certification. In addition, as a condition of their warranties, manufacturers have begun to require that workers with appropriate skill certifications install their products.

The Meaning of Skill Certification

Certification is a voluntary credential that is obtained by an individual that recognizes a significant mastery of knowledge, skills and abilities in a defined job-related area. Certification of a profession refers to a generally voluntary process in which the certifying organization formally grants recognition to those who meet certain predetermined standards or qualifications. Skill certification needs to be distinguished from other forms of credentials, which include the following:

Licenses – only governments can offer a license credential

Degrees – schools, universities and other educational institutions offer degrees

Certificates or certificates of completion—usually attendance at a specific program, seminar, or defined course of study enables an individual to earn a certificate that recognizes participation or completion

Skill certification usually includes written and performance examinations to assess the candidates' qualifications. The written examination assesses the candidate's knowledge whereas the performance tests the proficiency in applying knowledge to tasks in hands-on demonstrations. Skill certification offers the public protection because practitioners have to meet standards or qualifications and pass an exam, and they do so voluntarily. Developing a certification is a complex and time-consuming process and requires a strong administrative organization in order to maintain its quality. Over a thousand certification programs exist in the U.S., qualifying professionals from crane operators to energy efficiency experts, from financial planners to automobile technicians.

Voluntary certification programs can accomplish four important goals:

- (1) They offer a signal of competence to employers;
- (2) They provide a measure of protection to the public by giving them a credential for judging the competency of practitioners;
- (3) They provide practitioners with a way to distinguish themselves from their competition and improve their recognition and status; and
- (4) By potentially improving quality, they improve the public perception of the given occupation, helping increase the industry's prominence.

Also, there are several sources of workers, including former military personnel through the "Helmets to Hardhats" program, workers recruited into unions in organizing campaigns, immigrant workers. Employers and unions need to understand what Knowledge, Skills and Abilities (KSAs) these workers have when they apply. What are they missing? The best way to find out is to create craft assessment and certification procedures.

Electrical Work

A prime example of recent dramatic changes in credentialing can be found in the electrical trades, which has one of the most highly regarded apprenticeship and training systems in the nation. In 1941, the National Electrical Contractors Association (NECA) and the International Brotherhood of Electrical Workers (IBEW) created the National Joint Apprenticeship and Training Committee (NJATC or National JATC). The mission of the National Joint Apprenticeship and Training Committee is "to develop and standardize training to educate the members of the International Brotherhood of Electrical Workers and the National Electrical Contractors Association, insuring and providing the Electrical Construction Industry with the most highly trained and highly skilled workforce possible." (<http://www.njatc.org/about.aspx>)

The National JATC divides electrical work into four occupations:

Outside Linemen are the electrical workers who install the distribution and transmission lines that move electricity from the power plants to factories, businesses and homes.

Inside Wiremen are electrical workers who install the power, lighting, controls, and other electrical equipment in commercial and industrial buildings.

Residential Wiremen are electrical workers who specialize in installing the electrical systems in homes and apartments.

Telecommunications Installer-Technician installs networks of low voltage cabling used for voice, data, and video (VDV) or other low voltage signaling.

These four types of electrical work share common skills and knowledge but also have skills and knowledge that are particular to the occupation. Thus they each have a different apprenticeship program.

New Approaches to Skill Certification in Electrical Work

In January 2007, the National JATC announced implementation of a new approach to craft certification involving written and performance assessments of apprentices at the end of each year of apprenticeship, along with a comprehensive craft assessment at the completion of apprenticeship. Since Inside Wireman is typically a five-year apprenticeship, the new craft certification involves five sets of written and performance assessments given annually, plus a final comprehensive assessment. Individuals passing these assessments are eligible to receive certification documents, including a wallet card with a photo ID.

Craft certification is required of all apprentices. Whether existing journeymen need to take the assessments or are “grandfathered” in is left to the discretion of local programs. However, to work on some major industrial projects, owners may require all journeymen on the site to have taken and passed the assessments.

In addition to craft certification, as Michael Callanan, executive director of National JATC explained: “Our apprenticeship and training programs aim to offer as many useful certifications as possible. Certifications are useful to the extent that they are meaningful to our customers.”¹ Especially notable examples are specialty certifications in instrumentation and in cable splicing.

Instrumentation – The certification is jointly used by the electrical trades (IBEW) and the pipefitting trades (UA) under the oversight of the Electric Power Research Institute (EPRI), a non-profit center for public interest energy and environmental research. EPRI members represent over 90 percent of the electricity generated and distributed in the United States. Successful candidates are posted to the National JATC’s website and are listed with EPRI for use by prospective employers and utilities requiring preemployment knowledge assessment in the field of instrumentation.

¹ Personal interview with Michael I Callanan, Executive Director, National Joint Apprenticeship and Training Committee for the Electrical Industry, November 14, 2008.