Building an Apprenticeship and Training System for Maintenance Occupations in the American Transit Industry

by

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The authors thank Brian Turner, John Schiavone, and Ray Marshall for their comments on preliminary versions of this paper.

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ABSTRACT

Purpose: This article discusses the joint training and apprenticeship system emerging in maintenance occupations in the American transit industry, its challenges and strategies to overcome them. The article reports on early results, including efforts to develop a consensus national framework for apprenticeship and training in transit maintenance.
Findings: Training is an arena that both management and labour have common interests. Collaboration in training can foster partnership and improved labour-management relationships. Implementing technological innovations and organizational changes in workplace practices are facilitated by training and together with training demonstrate strong positive financial payoffs.
Research Limitations: The training and apprenticeship system discussed is not yet fully implemented.
Practical Implications: Several industries in America and other countries are facing similar shortages of skilled technicians due to technological and significant demographic changes.
Originality/Value of Paper: The paper reviews approaches taken to develop a national effort to promote quality and sustainability in the emerging training system for transit maintenance workers.

Key Words: Apprenticeship, Transit Industry, United States, Unions, Joint Sponsorship, Evaluation, Return on Investment

Classification of paper: Case study

Introduction

Facing a looming shortage of skilled workers due to the introduction of new technologies, an upcoming wave of retirements, and generally inadequate levels of training, the American transit industry has begun to address the challenge of expanding skill development on a joint, industry-wide basis. Progressive local transit unions and employers across the country are taking action to improve training of maintenance employees. They are collaborating further to develop a nationally networked joint training and apprenticeship system. The system envisioned is data-driven and striving for high performance. They are seeking lessons from established apprenticeship programs in transit as well as benchmarking practices in other industries. They are also developing metrics to measure the effectiveness of the system and to guide its development.

The new training system aims to benefit workers, employers and customers. Bus drivers and cleaners who previously had little opportunity to advance and improve their incomes now have access to a career ladder in maintenance work. Employers save monies through improved preventative maintenance along with reduced time and materials for maintenance and repair, and less need for spare transit vehicles. Customers and their communities gain more reliable transit services with fewer disruptive breakdowns and expanded bridges for community youth from school to career ladder opportunities with good pay and benefits.

The new training system builds upon the successes and accumulated experience of previously isolated existing local transit apprenticeship and training programs. The development of joint national training standards for maintenance occupations is also underway to help provide a supportive framework for transit training and apprenticeship. Pilot training and apprenticeship programs, initiated by new regional labor-management partnerships, are being established in localities across the county.

This article traces the development of this emerging training system to date, drawing lessons for building quality into apprenticeship.

Profile of the American Transit Industry

In 2001, five hundred and fifty-six (556) local public transit operators provided transit services in 408 urbanized areas of over 50,000 in population across the USA. An additional 1,215 organizations provided transit services in rural areas and 3,673 organizations provided specialized services to the elderly and to people with disabilities (Federal Transportation Administration, 2001). Unions represent approximately 90% of the industry's estimated 300,000 hourly workers. Several unions are involved in the industry; but the two most important are the Amalgamated Transit Union (ATU) and the Transit Workers Union (TWU). The International Brotherhood of Electrical Workers (IBEW) represents fewer transit maintenance workers, but has a significant share of the employees at some major agencies. Employers are organized in the American Public Transportation Association (APTA).

Transit systems in the United States are facing unprecedented challenges in obtaining the workforce skills needed to address pervasive technological changes, increasing retirements of skilled workers, and rapid industry growth. In 1998, the Rand Corporation investigated gaps in the skills of maintenance workers for the Transit Cooperative Research Program (Finegold, Robbins and Galway, 1998). Several other studies have raised major concerns about shortages of skilled workers for the future of the industry (McGlothlin Davis, Inc., 2002; and Committee on Future Surface Transportation Agency, 2003; TRB Special Report 275, 2001; and Community Transportation Center, 2007).

Changing technologies are driving the need for advanced training, especially applications of information technology and intelligent transportation systems to transit – including advanced electronic communications for bus and train operations and automated processes for fare collection, passenger counts, vehicle location, and next-stop

announcements. Digital electronics, computers and microprocessor-based systems are increasingly found in all aspects of transit. In addition, threats posed by global warming and other environmental concerns are accelerating changes in bus propulsion and other technologies and making transit a more environmentally attractive option for local transportation and community development.

At the same time, dramatic demographic challenges are hitting the industry. Transit is facing a huge wave of retirements, which will bring significant losses of experienced mechanics. Surveys show that nationwide 40 percent of skilled transit mechanics will be eligible to retire over the next eight years. Some agencies are facing retirement of up to 70 percent of their skilled maintenance workforce in the next five years (Unpublished survey results, Community Transportation Center, 2004; Center for Urban Transportation Research, 2000).

Transit employment is also growing faster than any other sector in the transportation industry. The US Bureau of Labor Statistics projects a 40.6 percent growth in employment between 2000 and 2010 for a total demand of 88,400 jobs in transit maintenance. Transit ridership has been trending upward since 1995, reversing a slow decline in prior decades. The 10 billion rides recorded in 2006 are the highest in 50 years. It is 30 percent higher than in 1995. Ever-worsening traffic congestion, rising fuel prices and growing environmental concerns are expected to drive further transit growth in the future (American Public Transportation Association, 2007).

In spite of these increased demands and developing skill shortages, an inadequate flow of new recruits is entering the industry. Transit maintenance jobs are not considered attractive by many of today's high school graduates. The general public has an inaccurate perception of transit as an old fashioned, low-tech industry; the highly technical nature of maintenance jobs in the industry is not appreciated. Problems in attracting recruits in some areas are exacerbated by lack of pay incentives, poorly developed career ladders, and unfavorable working conditions for new hires.