

Southern California Regional Transit Training Consortium: Skills Gap and Needs Assessment

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The Center for International Trade and Transportation (CITT) conducted a training needs assessment and gap analysis of the Southern California Regional Transit Training Consortium (SCR TTC) and its user base. This report sought to capture the needs of the evolving transit workforce that SCR TTC serves and to assess the broader implications of a changing workforce for the transit industry. This assessment identifies future curricular, programmatic, policy, and technological priorities as the U.S. transit sector strives to acclimatize to transformational technological and socioeconomic currents.

Study Methods

The study was conducted using a series of interviews, a workshop with SCR TTC board members and staff, a focus group, and an online survey.

A series of phone interviews were held with SCR TTC management preceding and following the workshop to assess how their perceptions were influenced. There were additional interviews held with former SCR TTC members, transit maintenance managers and technicians, original equipment manufacturers (OEMs), and some survey respondents.

A workshop was facilitated asking SCR TTC board members questions to gauge their perceptions of the state of the transit industry and related workforce challenges, the role of SCR TTC, and the current efficacy of SCR TTC as a training consortium.

The virtual focus group participants – specifically, transit technicians and managers – were asked to characterize the state of the transit industry, their knowledge of SCR TTC, and their assessment of current needs for transit operators, trainers, and transit agencies.

In order to document a wider perspective of the

transit industry, online survey questions were distributed to a variety of industry workers both inside and outside the consortium about training needs, on-the-job experiences, the state of the transit industry, and SCR TTC's efficacy as a training consortium. A total of 73 respondents opened or began the survey, with 42 respondents submitting usable responses for analysis.

Findings

The findings of this assessment suggest that users held positive perceptions of SCR TTC to be a beneficial organization that delivered relevant curricula. With the transition to electric and hydrogen fuel-cell fleets in the transit industry, however, the findings emphasize a need for rapid evaluations of training needs for all aspects of maintaining vehicular and infrastructure technology. There was considerable discussion about specifically developing and delivering training needs for electrical code training, computer network training, diagnostic tool training, etc.

The findings also emphasize a need to incorporate active learning in training modules or programs, with research participants specifically calling for more onsite training featuring expert observation as well as apprenticeship and/or mentorship programs, to aid transit workers in gaining more diverse workforce-readiness skills and technical knowledge. Tying in with this theme, the findings demonstrate a need for development of pedagogical skills (e.g. learning how to develop curricula from training manuals) and resources to empower trainers to educate others.

On a contrasting note, it is vital to note that many of the findings indicate that SCR TTC suffers from a visibility challenge, with the focus group and survey respondents demonstrating a general lack

of familiarity with the consortium (e.g. only 44% of respondents were aware of SCR TTC prior to the survey).

Policy Recommendations

Within the context of revolutionizing technological (e.g. development of electric and hydrogen fuel-cell products) and socioeconomic trends (e.g. evolving consumer preferences for mobility options) impacting the U.S. transit sector, the transit industry faces transformations on all levels to address these various challenges. Some examples would include the shift to smart microtransit, the increase of information technology (IT) management systems, and the instalment of new charging infrastructure. Given the expressed need for quicker development of new training compels the question of how SCR TTC, and similar agencies, can make organizational changes to rapidly develop curricula and provide targeted training programs. While transit managers and technicians emphasize a desire for onsite training options and active-practice curricula, in reality it would be prohibitively expensive to effectively build capacity in this area and simultaneously tackle creating content in line with the constant technological developments. Remaining true to the ethos of addressing the needs for more diverse training offerings and developing a more direct and customized relationship between the consortium and its user base, the project team has identified digital communication and outreach tools. These recommended tools can best be characterized as an integrated suite of enterprise resource planning products to improve user engagement and enhance strategic communications. The incorporation of a customer relationship management (CRM) platform into the SCR TTC website would allow leadership to continually assess the needs of the transit maintenance user base and facilitate the development of new user-facing workforce digital products. Such products could include an online “transit tech expert network,” or a community forum for technology transfer dialogue and resource sharing; a periodic video series featuring hands-on maintenance tutorials; a soft skills webinar series; and original equipment

manufacturer (OEM) and education service provider multimedia updates. To best capitalize on these digital tools, one key recommendation would be the development of a more intuitive mobile version of the SCR TTC website as the majority of the technician user base now accesses the internet via mobile computing devices.

About the Authors

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To Learn More

For more details about the study, download the full report at transweb.sjsu.edu/research/1932



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