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The UNIVERSITY of OKLAHOMA
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FIELD TRAINING STANDARDIZATION (PROJECT: CA001/002/009)

Principal Investigator: Dr. Robert Dionne, University of Oklahoma
Co-Principal Investigators: Stephen West, OU; Caroline Ocasio, IAU, Gary Wescott, TCC/Subject Matter Expert: Al Culp, TSTC
Industry Partners: Leidos, Chickasaw Nation Industries, Computer System Designers, Robinson Aviation, and CI2 Aviation

Research Value to the FAA/Impact to the ATC Field

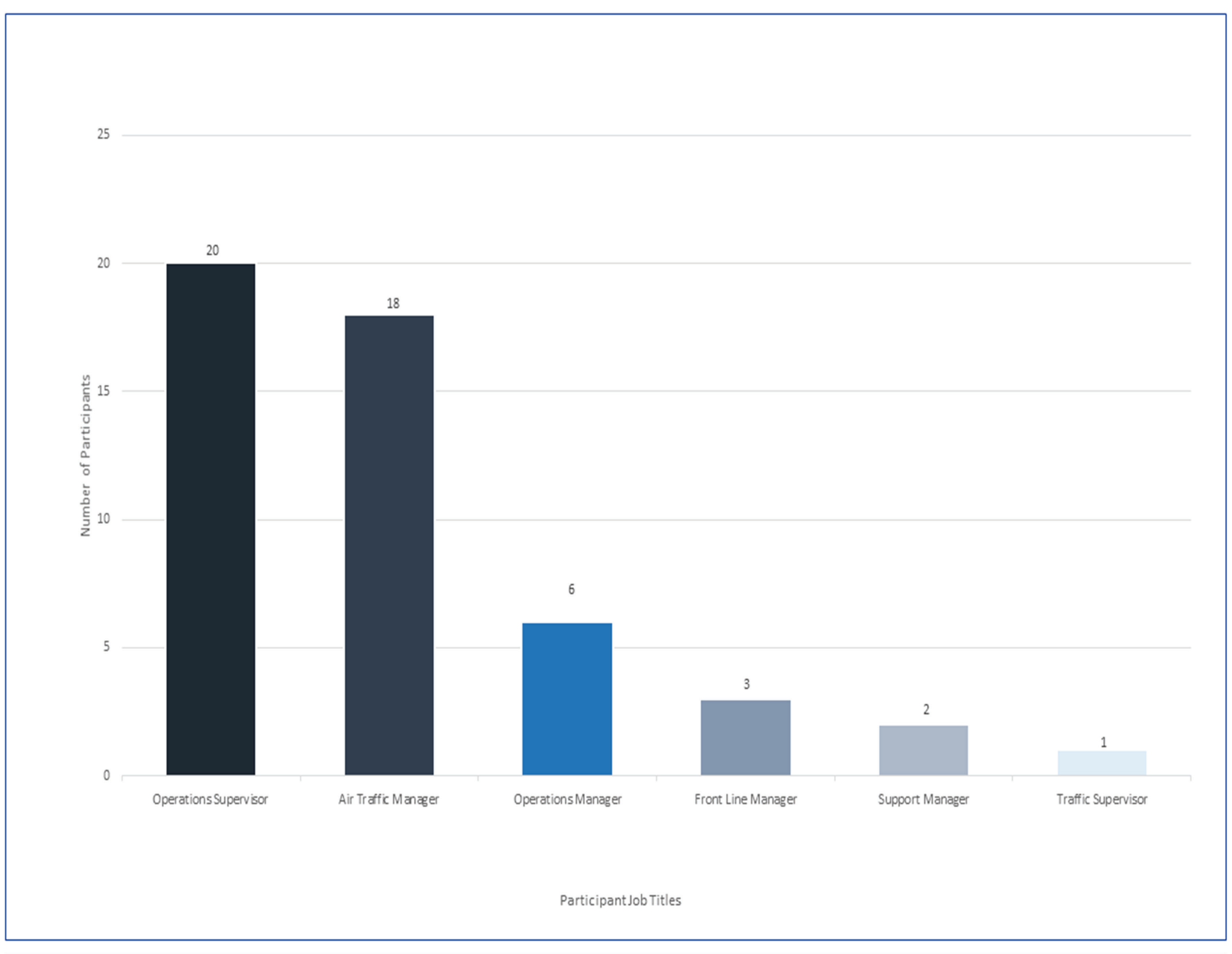
The purpose of this project is to assist the FAA with overcoming inconsistencies in technician and controller field training. Historically, FAA field facilities originated independently and developed facility-specific training materials and instruction plans. This has led to varying levels of training quality and content across facilities.

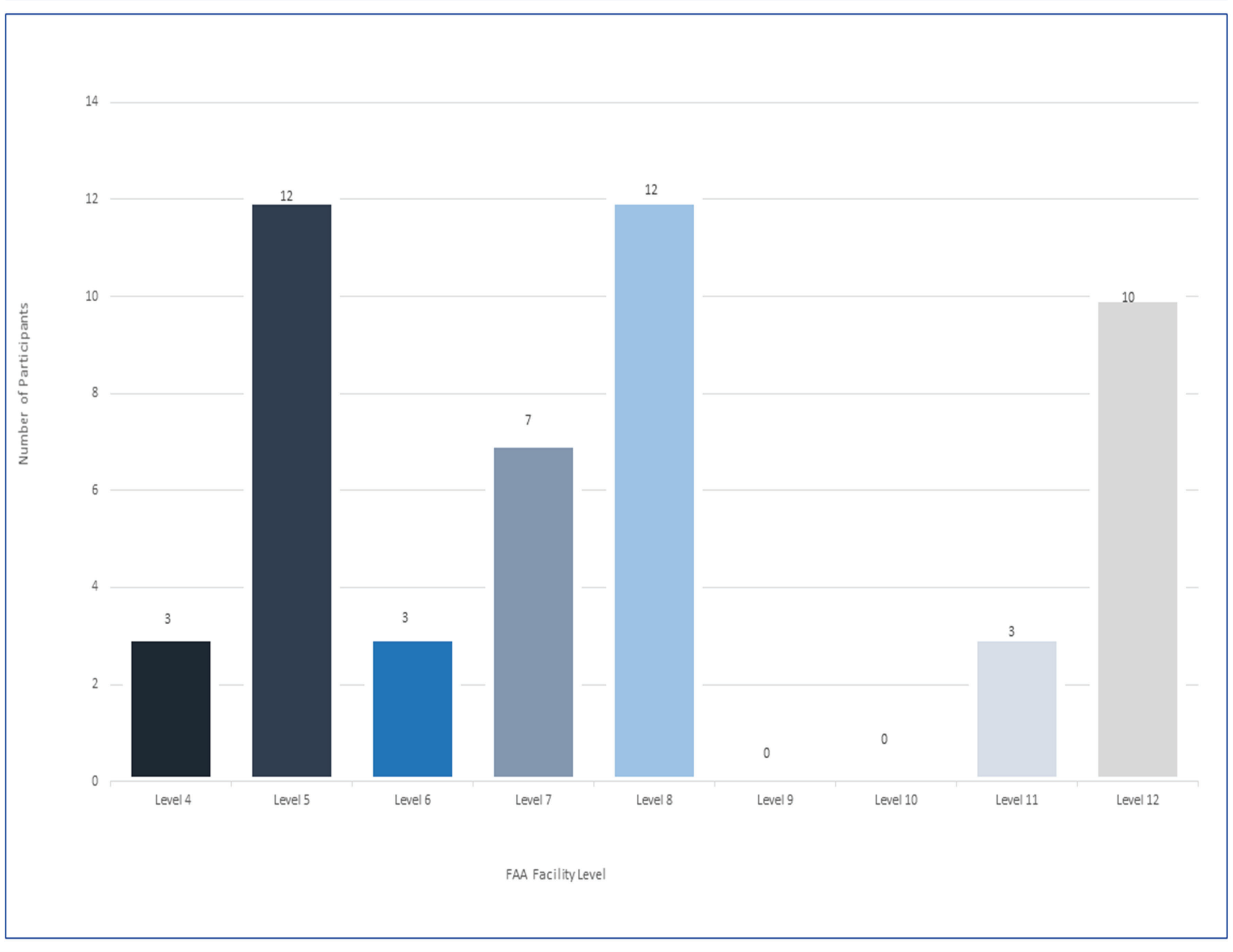
The outcomes of this research provide analysis and recommendations regarding format and consistency for formal field training course materials, and potential strategies for enhancing OJT standardization and effectiveness in ATC field facilities. Some of these recommendations may also be applied to Tech Ops field training. The recommendations may increase consistency in job performance, decrease training times, and increase success rates in training.

The FAA received a final research and recommendations report resulting from a collaboration of academics, researchers, and industry partners. By formally reviewing and evaluating field training standardization, the report focuses on current On-the-Job Training among FAA Air Traffic Control facilities, forming recommendations for the FAA to consider.

Demographic Information of Research Participants

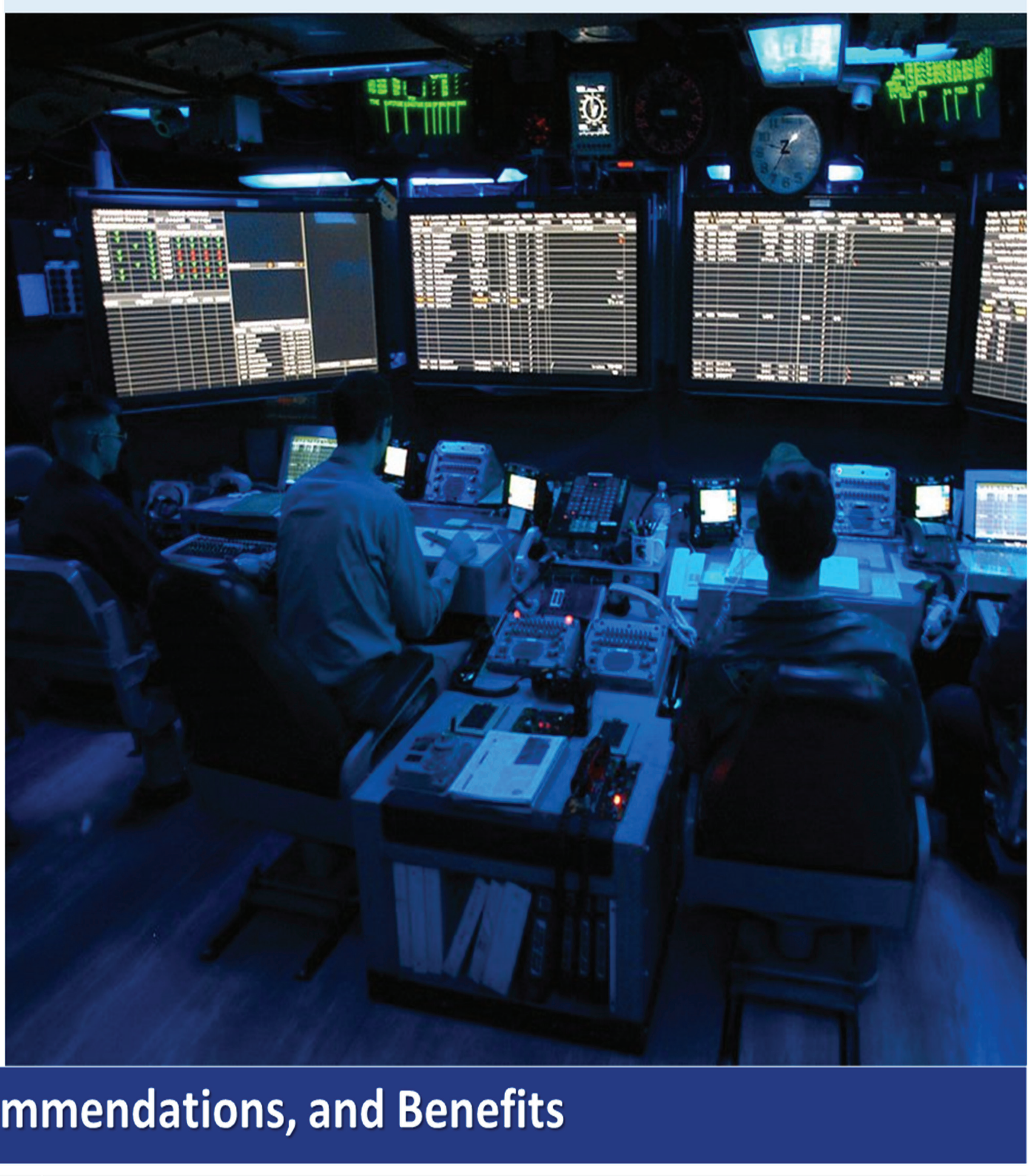
- **Research Methodology – Qualitative interviews**
- **Number of Participants – 50 individuals**
- **Data Collection Sites – 24 facilities from each FAA region**
- **Field Facility Levels – Level 12 (10), Level 11 (3), Level 8 (12), Level 7 (7), Level 6 (3), Level 5 (12), and Level 4 (3)**





Key Takeaways from the Project

- ❖ **Training Documentation Format** – 95% of documents reviewed were found to be presented in a simple, easy to understand and well-organized format.
- ❖ **Training Documentation Vocabulary** – 95% of the time vocabulary used was very easy to understand.
- ❖ **Training Documentation Content** – 89% of training content was appropriate for the course.
- ❖ **Training Documentation Handouts** – 38% of courses evaluated included handouts that were east to understand and visually appropriate to the material or information at hand.
- ❖ **Simulation Equipment** – Increase access to simulation equipment during OJT field training.
- ❖ **Instructor Standardization** – Enhance instructor selection, evaluation, training, and knowledge sharing.
- ❖ **Digital 3120-25 Implementation** – Standardized use of an electronic form allowing collection of trends.
- ❖ **Position Certification Guide** – Implementation of a Position Certification Guide to track task progress.
- ❖ **Electronic LMS and Knowledge Management System** – Expand use of ELMS for training,
- ❖ **Communications between Academy and Field Instructors** – Build a closer relationship between Academy and field training.
- ❖ **Interim Training Facilities** – FAA to consider specialized training facilities to enhance training standardization.
- ❖ **Training Program Reviews** – Establish an accreditation review process to ensure standardized training across all facilities.



Project Outcomes – Findings, Recommendations, and Benefits

Project Recommendations	**Benefits to the FAA**
1. Review and update Training Documentation to ensure current information is available for each course offered.	*Standardize available training documentation to enhance students learning.*
2. Increase access (availability) of simulation equipment to a wider number of facilities through application of new lower cost options such as suitcase and desktop simulators.	*Reduced time to complete training, greater training standardization, and enhanced student performance – lower washout rate.*
3. Standardize instructor selection criterion and process, enhance instructor recurring training options, provide an instructor knowledge database, and allow student feedback on instructor performance.	*Increased training delivery standardization, lower time to certification, and lower washout rate.*
4. System-wide Implement of a digital 3120-25 form, database, and reference material.	*Reduce time to complete paperwork, reduce local interpretation of standards, and provide system-wide training information.*
5. Implement a Position Certification Guide, to track trainee task progress against National requirements. Provides a quick reference checklist of tasks already demonstrated by trainee.	*Speed up training time by eliminating duplication of effort and ensure all critical tasks have been addressed in OJT.*
6. Expand use of ELMS/KMS to include all training events within the NAS.	*Enhance face-to-face training, provide asynchronous training, support hybrid delivery approaches, and provide a knowledge repository.*
7. Enhance the connection between training at the Academy and Field Training by establishing a link between instructors to share experience, discuss curriculum, and job share.	*Students viewed as better prepared for OJT when arriving at a facility, reduced training time, and fewer students who are not prepared for OJT.*
8. Consider specialty-staffed "training" facilities designed to speed the transition from Academy grads to certified controller before transferring to a facility requiring staff.	*Enhanced training standardization, uniform controller practice, reduced training time, reduced training failures, and greater student training support.*
9. Establish an accreditation review board to certify that facilities are conducting standardized training through the use of self-audits, continuous improvement, and accreditation site visits.	*Ensure standardized training practices are being followed, provides a method of validating training quality, and provides assurance that employees are uniformly trained.*