



# DPS Experience in Texas

DPS User Group

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U.S. Department of Transportation  
Federal Highway Administration

AMERICAN ASSOCIATION  
OF STATE HIGHWAY AND  
TRANSPORTATION OFFICIALS

**AASHIO**

# Overview

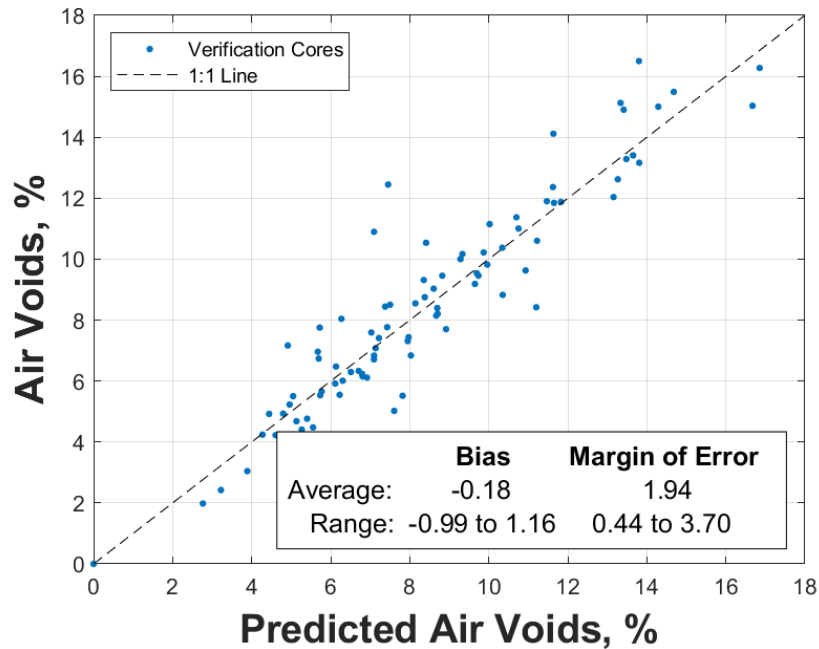
- Wrap-up of deployments and analysis on new construction
- Recent forensics
- Future work

# Air Void Predictions on New Construction

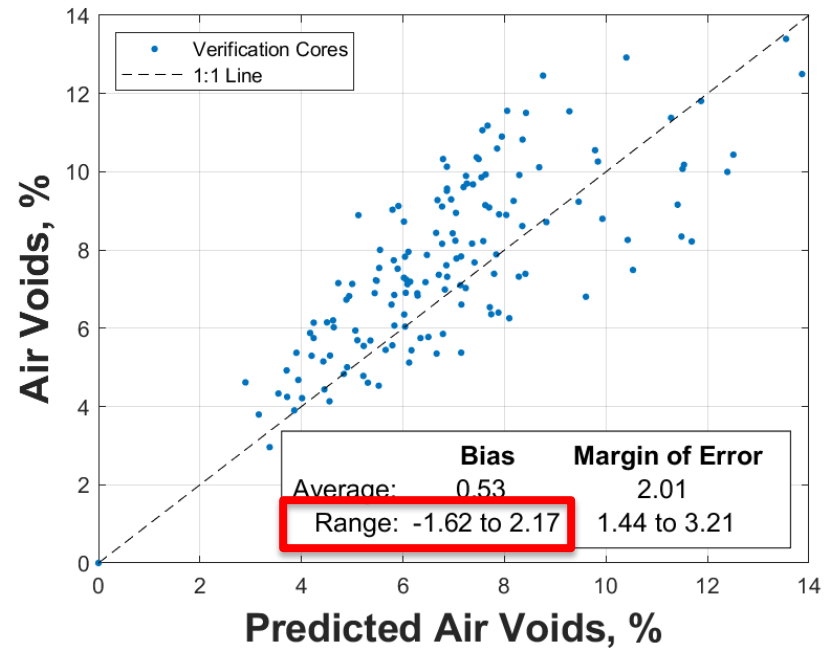
- Scope of Field Testing
  - 11 unique projects and mix designs.
  - Lift thickness from 0.75 to 3.5-inch.
  - Test in a production QA scenario for multiple lots of paving
    - At least 3 lots,
    - 6 to 9 cores per lot.
- Air Void Prediction Scenarios
  - Calibrate on first lot and predict/validate on different lots
  - Calibrate on first lot and predict/validate on the same lot.

# Verification Results

## Same-Lot Prediction

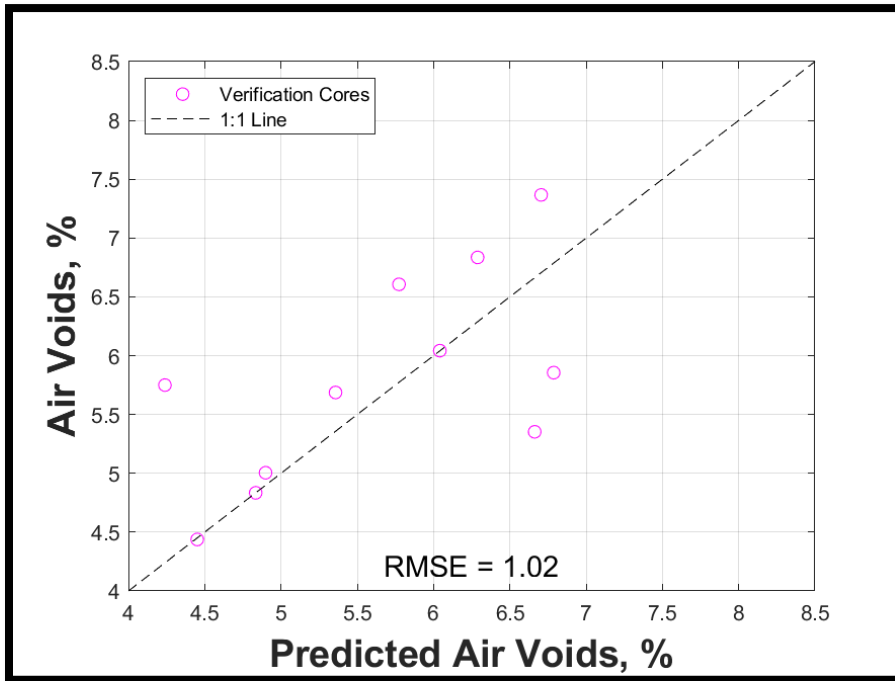


## Different Lot Prediction

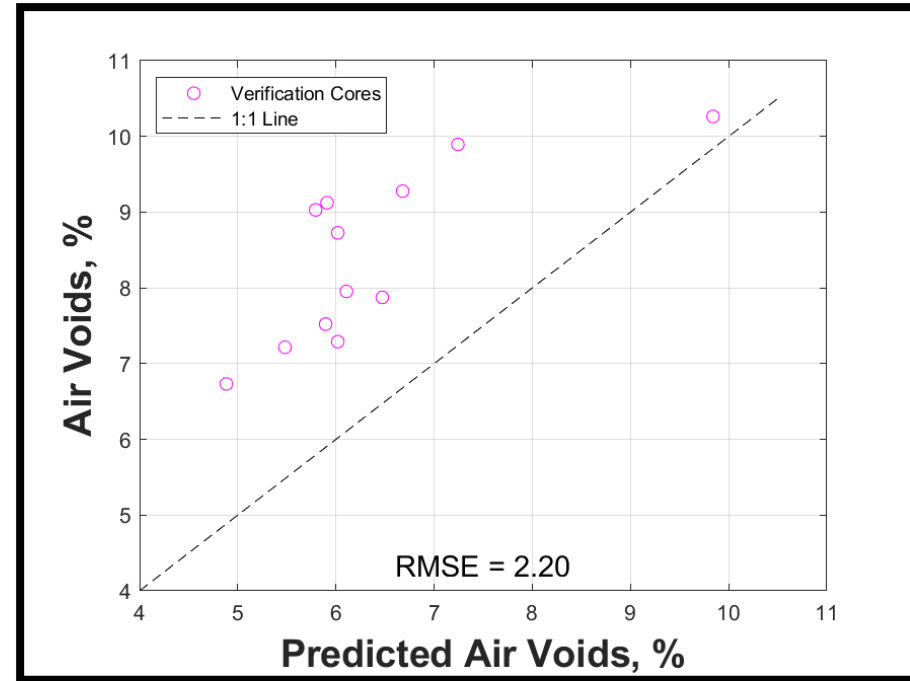


# Verification, Project Examples

**No Bias**  
(SH 149-Beckville)



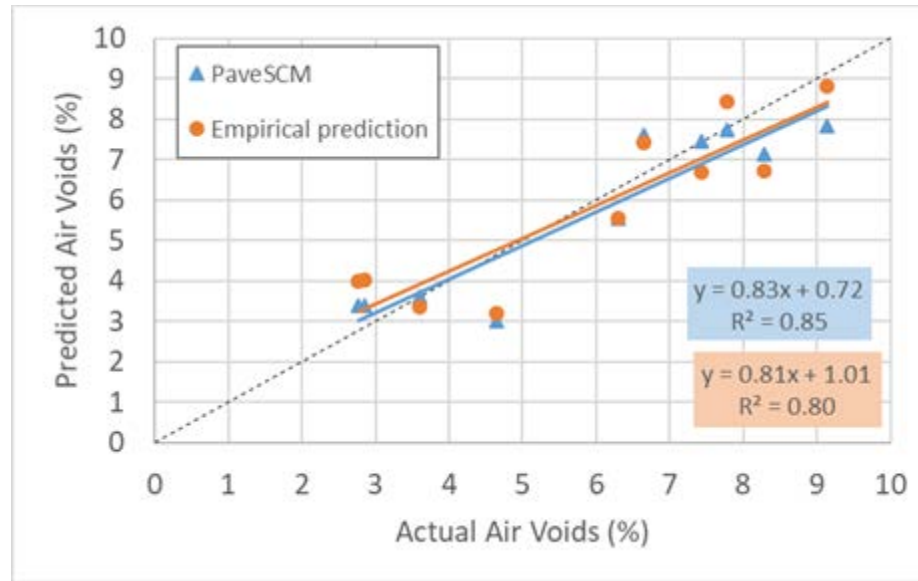
**With Bias**  
(FM 158-Bryan)



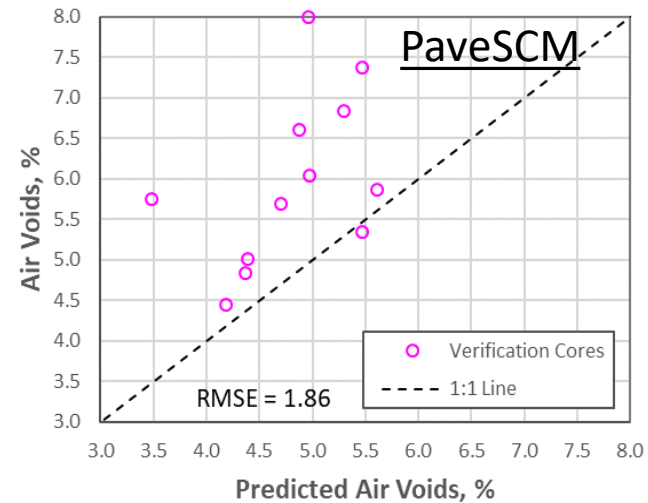
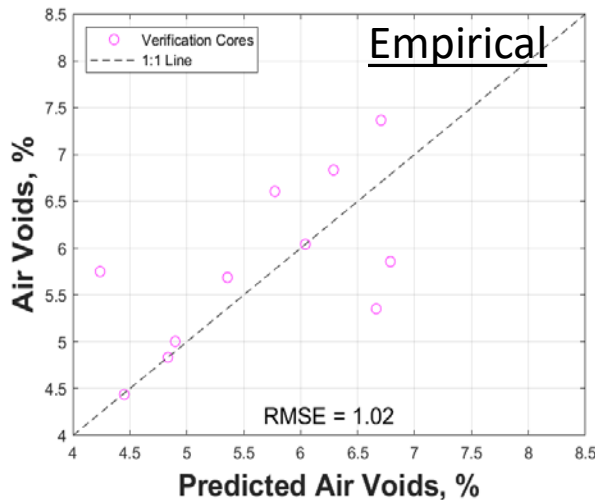
Bias likely related to equipment and/or calibration methods, not the mixture.

# Empirical vs PaveSCM

Same-Day Prediction



Different-Day Prediction



# Forensic Deployments

## Testing



## Cores



# Anticipated Future Work

- Using RDM in research projects
- Growing work with 3D radar, but focused more on forensic settings