

# HIGH-SPEED RAIL WORKFORCE DEVELOPMENT IN THE STATE OF CALIFORNIA: LINKING RESEARCH TO ACTION

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**2012 RAIL CONFERENCE**



# INTRODUCTION

Or....

*How applied transportation research helped to inform and unite stakeholders in High-Speed Rail workforce development*





# Research Initiation



- **Fall 2010: Office of the Chancellor of CSU recognized an unmet need for education in workforce development**
- **A lot of forests, but few trees...**
- **The Mineta Transportation Institute was asked to conduct a needs assessment that would address the system-level needs for training and educating the HSR workforce**
- **CSU and MTI approached the California High-Speed Rail Authority (CSHRA) to seek endorsement of the development of a fact-driven workforce plan**

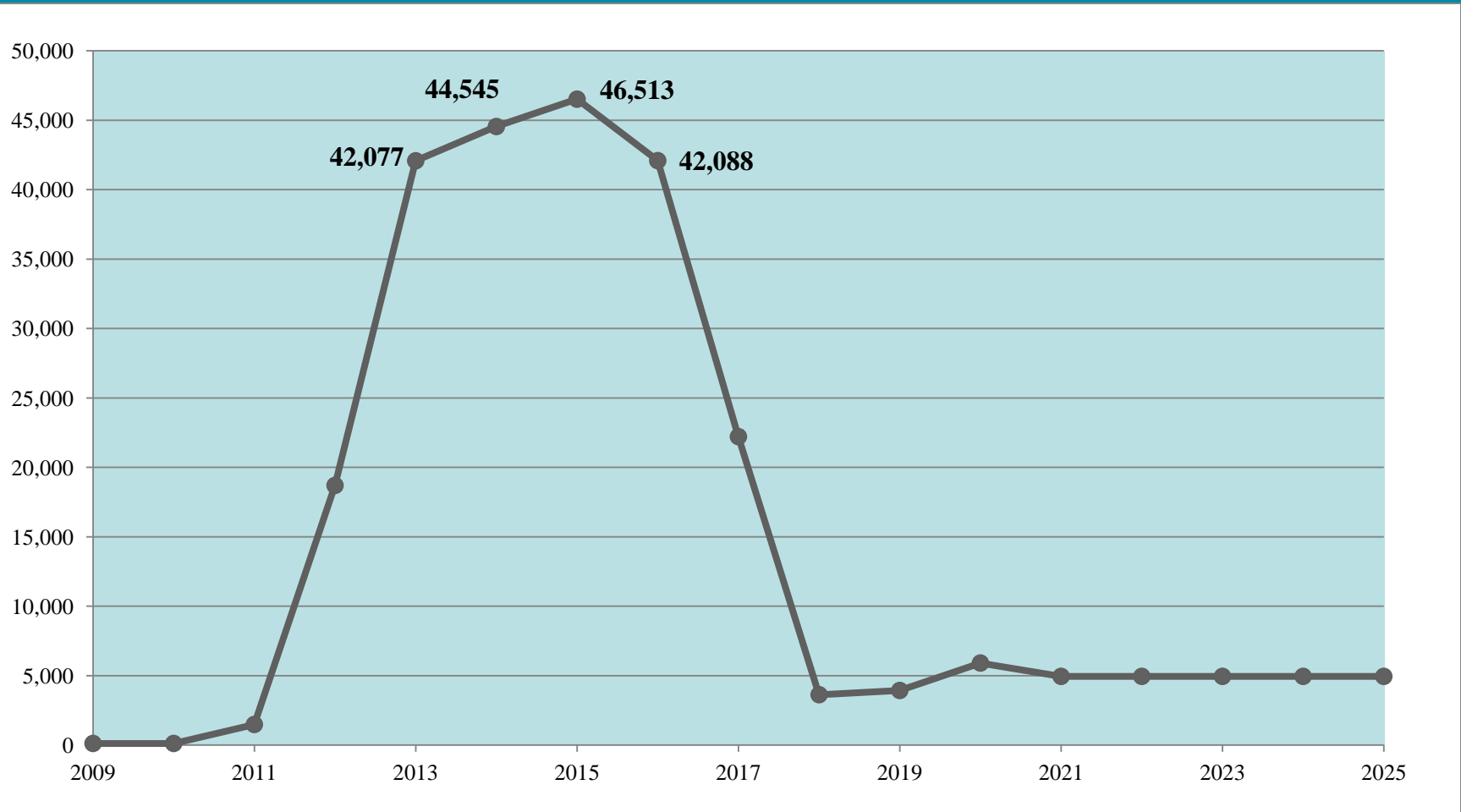


# New methods yield useful results

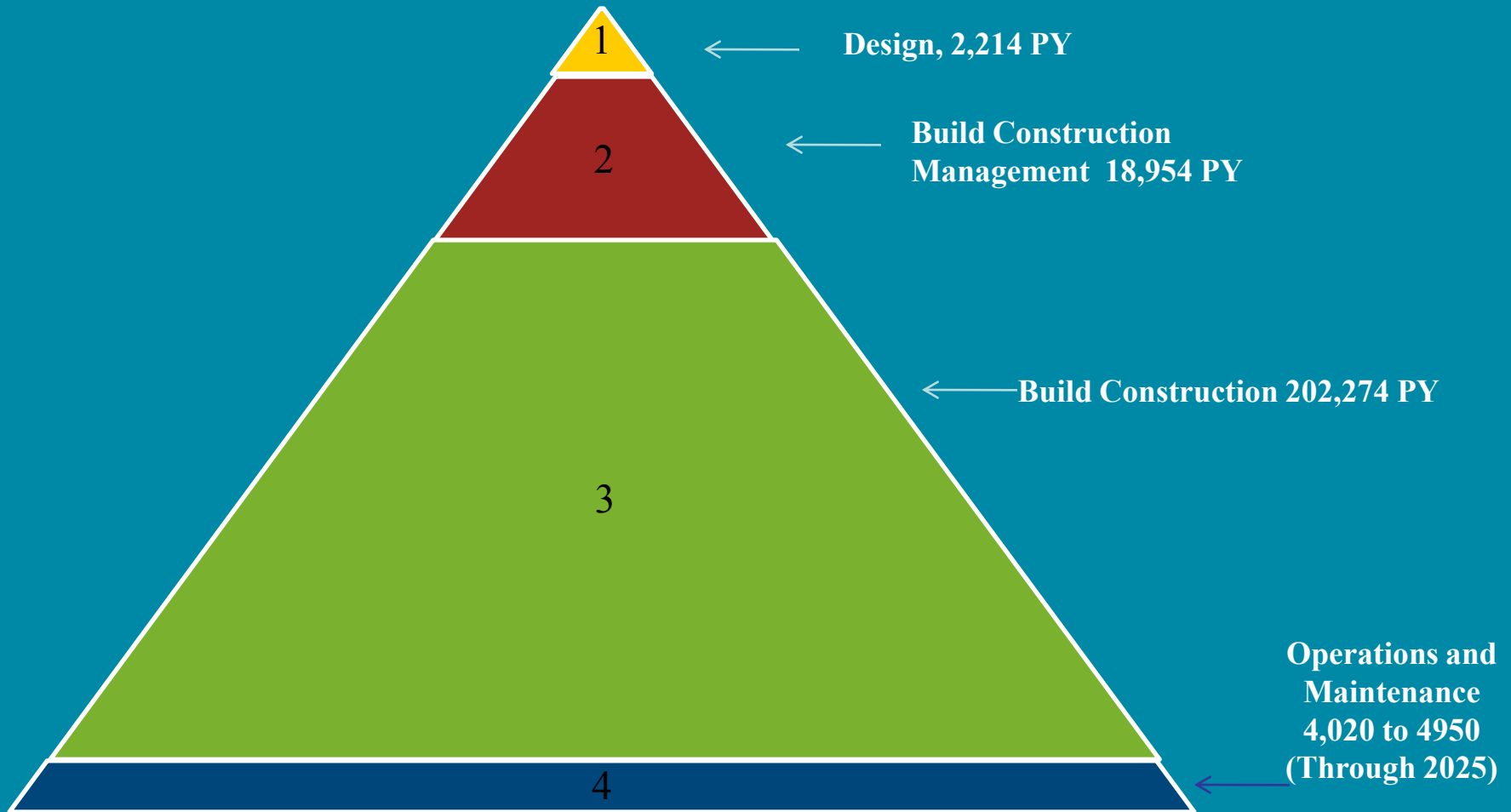
- **Methodology: estimates derived from “bottom-up” strategy (v. traditional “top down” approach)**
- **Enabled estimation of likely level of education of entire California HSR workforce**
- **Identified vacuum of rail education and training in California and the US**
- **Estimated need for thousands of employees at nearly every level of education**
- **Identified six areas of HSR-specific training associated with new technologies**



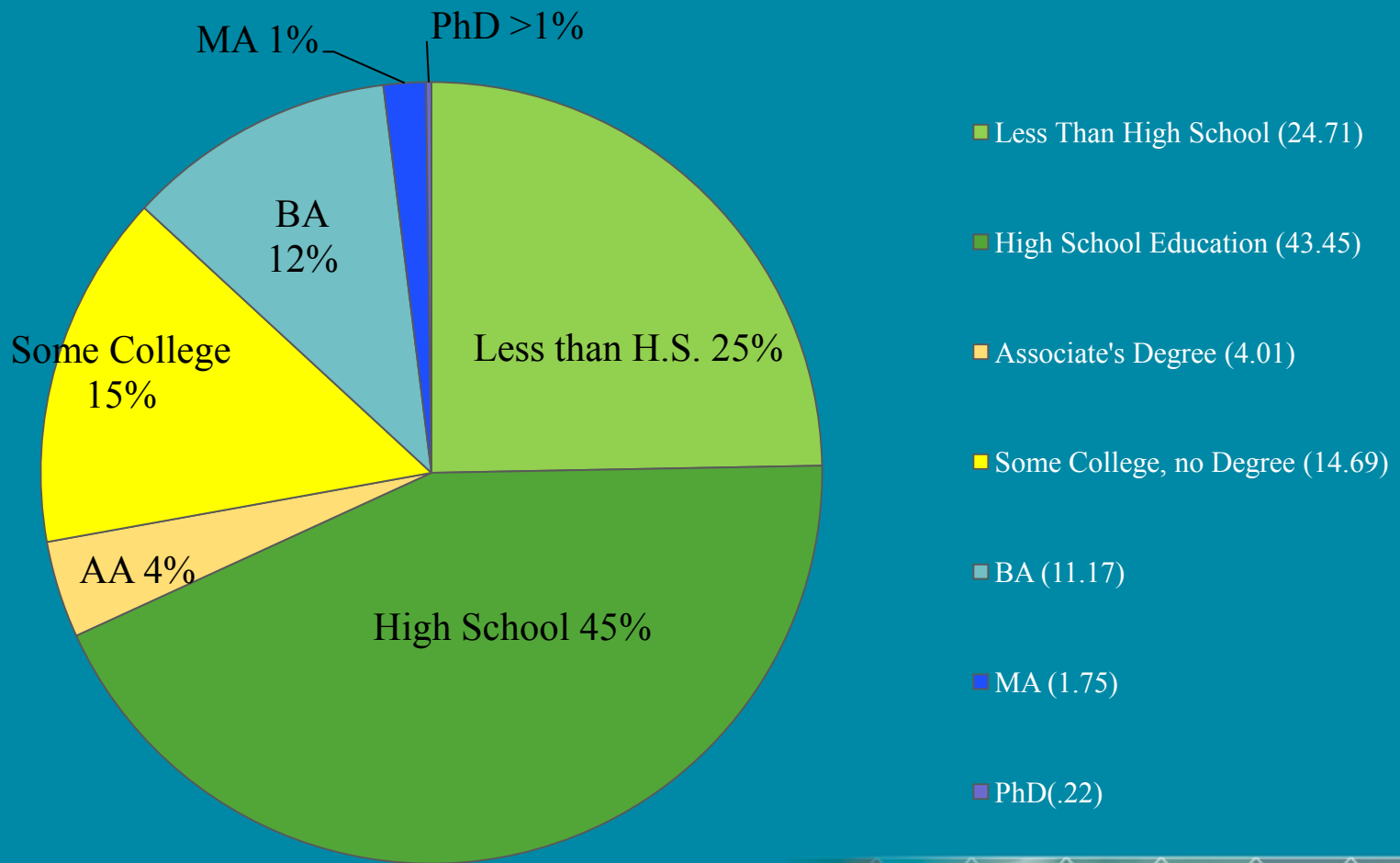
# Quantitative assessment: need for a massive California HSR workforce (including “peak period”)



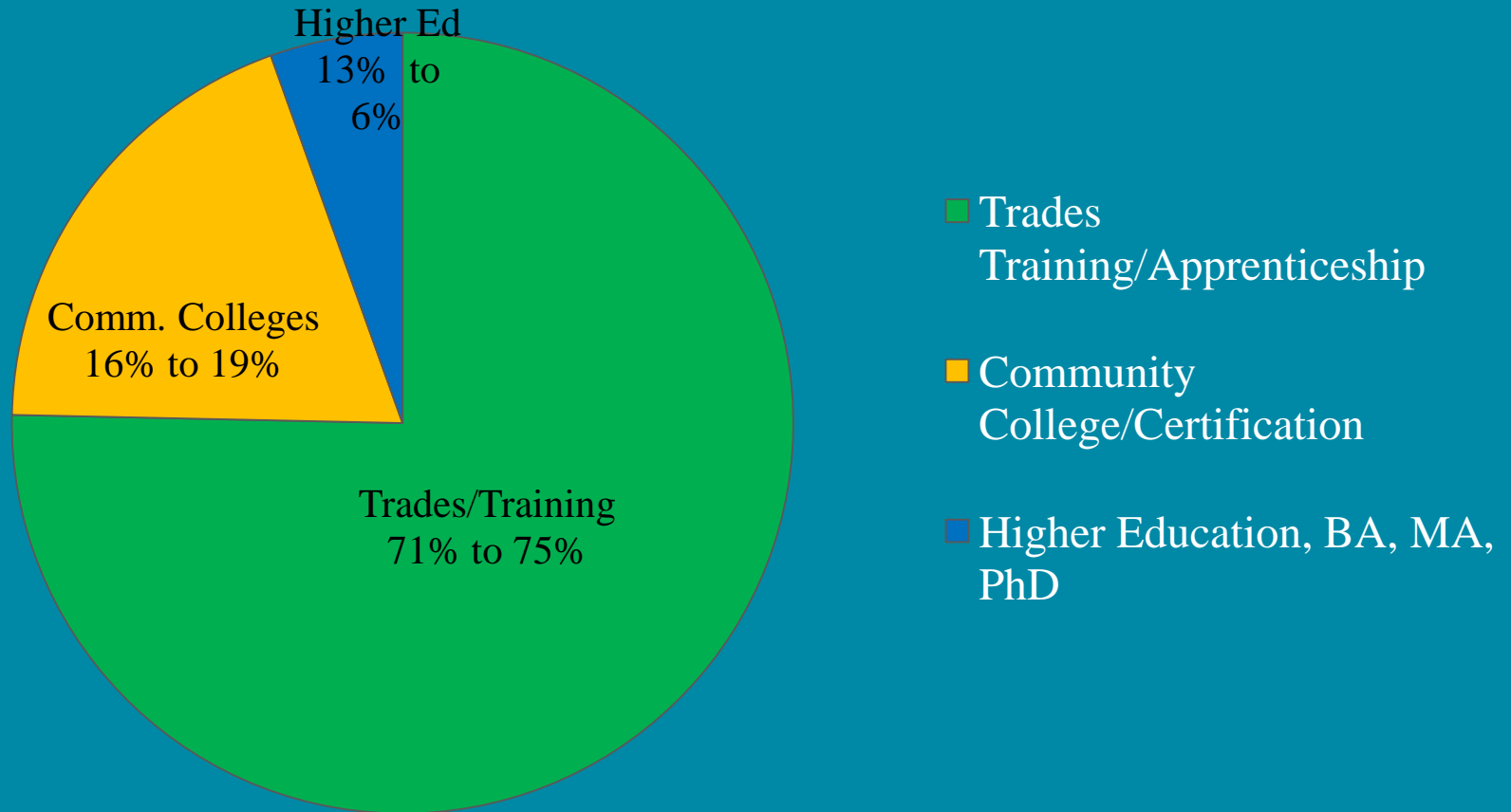
# Quantitative assessment: Personnel demand, by Phase, 2009 to 2025



# Qualitative assessment: a continuum of education / training need



# Education/Training assessment: need for collective participation among coalition partners






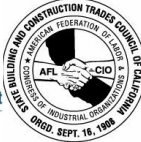









# Results of the coalition-building effort

- The analytical work served as the foundation of the CHSR-TEC, which constructed a proposal for the CHSRA, requesting \$7m.
- The coalition awaits the opportunity to approach the CHSRA with the proposal, for possible authorization.
- Current uses of the MTI data include AB 1618, various labor analysis, and other coalition efforts between CCC and labor organization partners.



# Proposed roles of collaborators in the CHSR-TEC

| CHSR-TEC Collaborator  | Role As Coalition Member  |
|--|---|
| <p><b>K-12 and Regional Occupation Programs</b><br/>(Through California Partnerships Academies)</p>     | <p>→ Three (3) pilot California Partnerships Academies</p>  |
| <p><b>Labor and Trades Partners</b><br/>(Through Joint Apprenticeship Training Centers)</p>     | <p>→ Develop a Basic HSR Certificate for all construction and maintenance line workers,</p>   |
| <p><b>California Community Colleges</b></p>    | <p>→ Conduct skill gaps analysis to identify areas of need in the existing workforce triggered by HSR</p>   |
| <p><b>Higher Learning Institutions:</b><br/><b>California State University Partners</b></p>     | <p>→ Multifaceted Response including:</p> <ol style="list-style-type: none"> <li>1) Certificate program in Transportation and Urban Planning and a High-Speed Rail emphasis,</li> <li>2) B.A./B.S. and M.A./M.S. HSR degree focus development,</li> <li>3) development of HSR web-based resources</li> <li>4). Program monitoring and assurances</li> </ol> |
| <p><b>Higher Learning Institutions:</b><br/><b>University of California</b></p>     | <p>→ Research and Development (R&amp;D) of new technologies for development of California's HSR systems, and development of HS Rail Center (with an M.A. and Ph.D. focus)</p>   |

# Key lessons

- **HSR connotes a spectrum of training and education needs that have been only broadly explored**
- **Applied transportation research can empower stakeholders to help focus their responses to workforce needs**
- **Research can be leveraged to build partnerships across potentially competitive education and training institutions**
- **More remains to be discovered about specifics of training and education need for HSR**



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