



5 - 8 DECEMBER 2022
DUBAI WORLD TRADE CENTRE

ACI Certification

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Concrete Talks / 6th of December / ACI Managing Director of Certification



ACI's Mission

ACI develops, disseminates, and advances the adoption of its consensus-based knowledge on concrete and its uses.



American Concrete Institute

Always Advancing

ACI's Vision

ACI envisions a future where everyone has the knowledge needed to use concrete effectively to meet the demands of a changing world.



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ACI is

A technical and educational society dedicated to improving the design, construction, maintenance, and repair of concrete structures

One of the world's largest sources of concrete knowledge



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ACI is NOT

- A Trade or Promotional Association
- A Government Agency
- A University



In reality ACI is...



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ACI Members are

- Architects
- Consultants
- Contractors
- Educators
- Engineers
- Materials Suppliers
- Lawyers
- Researchers
- Students
- Laboratory Technicians

Anyone interested in concrete



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ACI Membership

- Approximately 20,000 members in 129 countries
- Approximately 14,500 additional Chapter Members
- 5,400 members outside North America
- Over 15,000 Student Members
- 1,000 Organizational Members
- 4,000 Active Committee Members



ACI Products & Services

- Conventions
 - Spring
 - Fall
- Technical Products
 - Codes/Specifications
 - Committees Guides & Reports
 - Periodicals
 - Enhanced ePubs



ACI Products & Services

- Educational Products
 - Publications
 - Seminars
 - Webinars
 - eLearning
- Certification
 - Personnel



Why Get ACI Certified?

PUBLIC

- Protects public health and safety
- Helps conserve valuable resources
- Meets project requirements
- Contributes to the quality of the project
- Improves quality of life



Why Get ACI Certified?

PERSONAL

- Demonstrates/proves knowledge and skills
- Often the sole method of learning specific processes
- Provides a mechanism for continued learning
- Makes the individual stand out from others
- Provides a sense of accomplishment
- Provides a track for career advancement



ACI Certification History

- Began development in late 1970s under ACI Education
- First examination offered in 1983:
Concrete Field Testing
Technician—Grade I
- CPC became an ACI Board-level committee in 1991
“Operational” committee
Separate Int’l Cert Subcomm*



Certification - 1983

- 1 program - Field Technician
- 1 Certification Committee
- 3 Staff
- Manual processing
- Independent examiners



Certification - 1985

- Field Technician required in ASTM C94
- Volume increased dramatically, new programs are able to be funded.



Certification - 1991

Certification required a new administrative model to address growth and the need for enhanced consistency...

Sponsoring Group Policy

No independent examiners!



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ACI Certification—Then & Now

1991		2022
5	Programs	30
5	Department staff	16
0*	Sponsoring Groups	131
200*	Examiners	1400
5000	Examinations annually	38,000
20,000	Active certifications	128,000
1	Languages offered	4



Distribution of ACI Certifications and SGs



31 Programs... and GROWING!

TESTING

- Field Testing (4)
- Strength Testing
- Laboratory Testing (2)
- Aggregate & Soils/Base Testing (3)
- Cement Physical Tester
- Masonry Testing (2)
- Self-Consolidating Concrete

INSPECTION

- Construction Special Inspector (2)
- Transportation Inspector
- Post-Installed Concrete Anchor (2)
- Concrete Quality/Materials
- Shotcrete
- Nondestructive Testing
- Concrete Construction Sustainability and Resilience Assessor

CONSTRUCTION

- Adhesive Anchor Installer
- Flatwork Finisher
- Decorative Concrete Flatwork
- Specialty Commercial-Industrial Flatwork
- Tilt-Up
- Shotcrete Nozzleman (2)
- Residential Concrete Foundation

DESIGN

- ACI 318 Design Professional



Int'l Certification Program Customization

- CSA-based exams formulated in early 1990s
- No formal policy/protocol for expansion
- Still a need to address use of other countries standards
- Int'l Certification Subcommittee (ICS) developed draft proposal to expand customization in 2017
- Certification Programs Committee the ICS recommendation/program in 2018
- European Norms- and IRAM-based programs follow



Int'l Certification Program Customization

Proposed custom program is viable according to both business and technical criteria, including:

- Business
 - Qualified personnel are willing to develop, deliver, and promote the program
 - Market is large enough to support the program
- Technical
 - Based on National Standards
 - Can be safely conducted and produce reliable and reproducible results



Written Only

- Post-Installed Concrete Anchor Installation Inspector
- Concrete Flatwork Associate
- Specialty Commercial/Industrial Flatwork Technician*
- Concrete Construction Special Inspector*
- Concrete Transportation Construction Inspector*
- Concrete Quality Technical Manager*
- Tilt-Up Supervisor and Technician*
- Residential Concrete Foundation Technician
 - Shotcrete Inspector*
 - ACI 318 Design Professional

Both

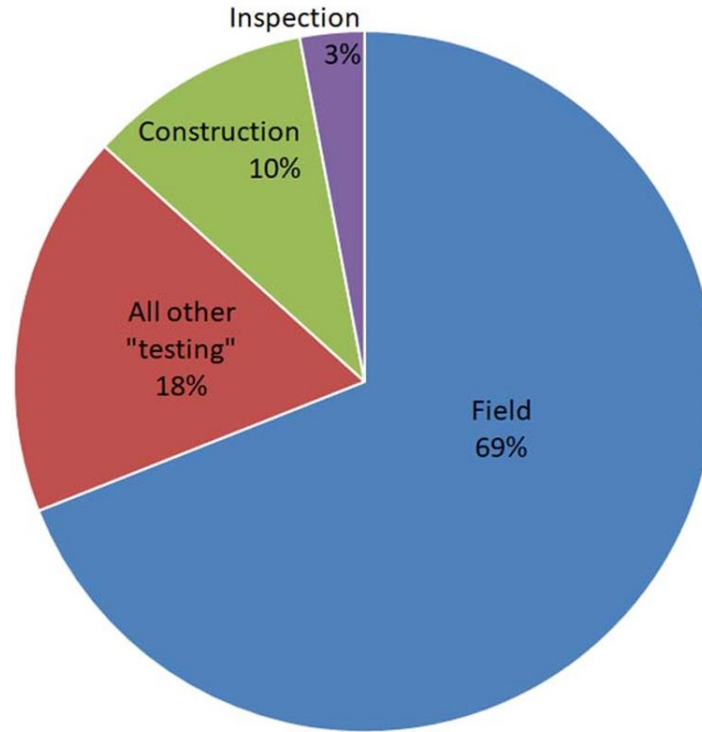
- Adhesive Anchor Installer
- Concrete Field Testing Technician – Grade I
- Advanced Concrete Flatwork Finisher*
- Specialty Commercial/Industrial Flatwork Finisher*
- Self Consolidating Concrete Testing Technician
- Concrete Strength Testing Technician
- Concrete Laboratory Testing Technician – Level 2*
- Cement Physical Tester
- Aggregate Testing Technician – Level 1 & 2
- Aggregate Base Testing Technician
- Shotcrete Nozzleman (Wet & Dry-mix)*
- Masonry Field Testing Technician
- Masonry Laboratory Testing Technician
- Nondestructive Testing Specialist – Concrete Strength

Performance Only

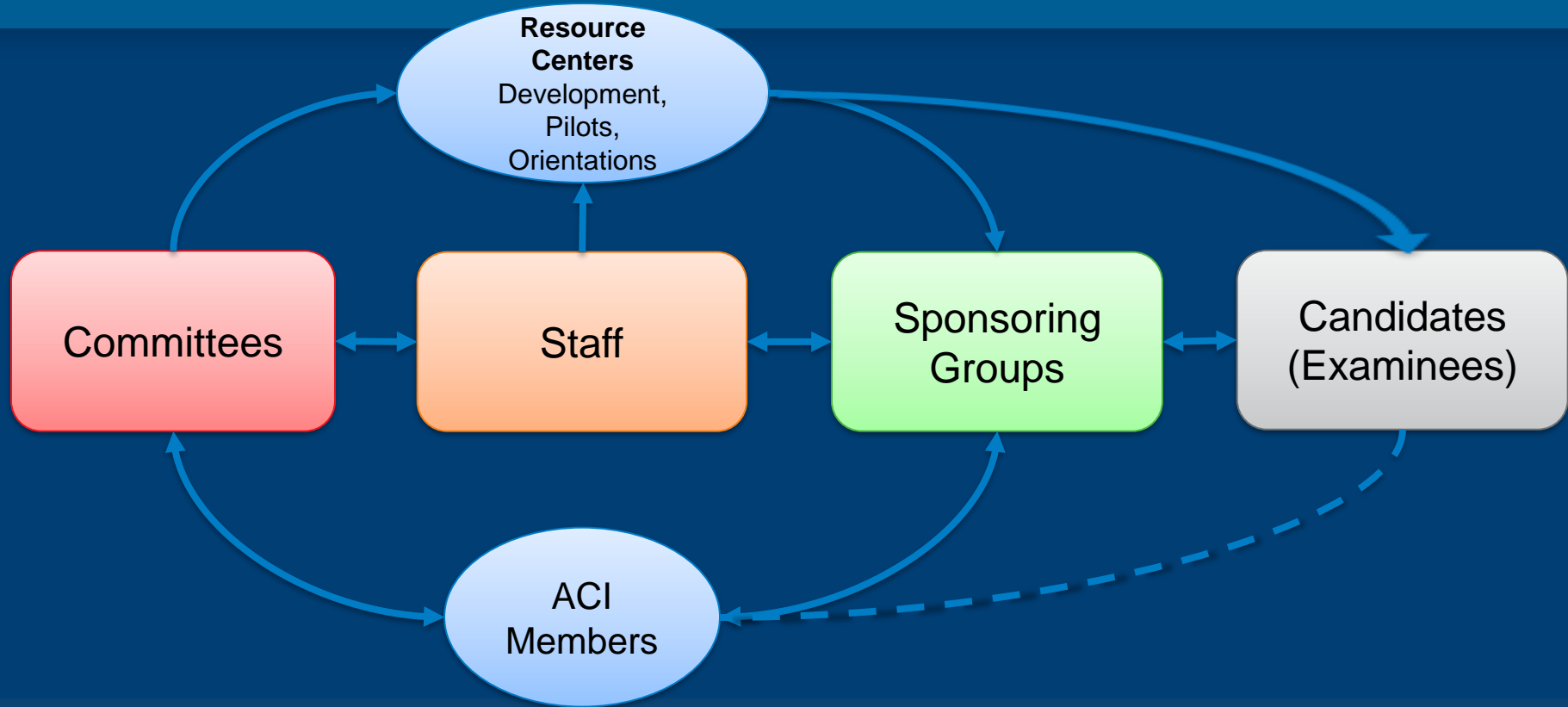
- Concrete Flatwork Finisher*
- Commercial/Industrial Flatwork Specialists*:
 - High Tolerance
 - Silica Fume
 - Surface Treatments



Programs by Volume



Who's Where in the Landscape of ACI Cert.?



Sponsoring Groups—the Delivery Point

- 131 Sponsoring Groups worldwide
- Chapter vs. non-chapter:
 - 54 are ACI chapters
 - 76 non-chapters/hybrid w/chapters
- Domestic vs. international:
 - 92 domestic (U.S.)
 - 39 international
 - Size and resources vary greatly:
 - Volunteers vs. full-time paid staff



Sponsoring Groups—Requirements

- Constituency represents stakeholders
- Appropriate technical expertise
- Prove a legitimate need for the program(s)
- Primary objective to improve concrete construction within the intended operational jurisdiction*
- Maintain a Certification Committee
 - 3 indivs - 3 diff orgs/cos – 3 diff prods or servs
 - Maintain control over examiners/exam process
 - Prepared to execute specific responsibilities (CCPOM)
- Adequately service the jurisdictional area
- Assist in advocacy efforts



Sponsoring Groups—Exam Activity

- **131** groups worldwide
- **38,000** exams administered per year
 - ~2000 of these Int'l
 - ~3200 per month
- **~3700** sessions per year
 - ~300 per month
 - Session size can vary: 1~100 examinees



NEW! ACI Resource Centers

- 3 Regions: U.S. West, Central, East
- Venues available for Certification, Education, Industry meetings, et. al.
- Controlled directly by ACI
- Customer Convenience / Availability / On-demand
- Work with ACI SGs, NOT compete
- Assist in building markets / increasing use of ACI Products and Services
- **Administrative Training Center for Certification**
- Produce media for educational products
- SoCal and Midwest/Chicago operational



Industry Partners & Collaborators



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Why ACI Certification?

- Globally recognized/available
- Independent
- Psychometric approach to formulate effective written and performance exams
- Online verification of credentials — *new app!*
- Engaged administrative network (SGs)
 - Training, outreach, etc.
- Agile, responsive to regional markets
 - Customized programs in multiple languages



THANK YOU



Concrete



Facilities
Management



Geotechnical
& Engineering



HVAC R



Offsite
& Modular



Project
Management



Solar



Stone Design



Technology



Urban Design
& Landscape