

New Market Challenges in Light Commercial TAB

Wednesday, Feb 8th
9:00 AM – 10:00AM



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About NCI

If you don't measure, you're just guessing™

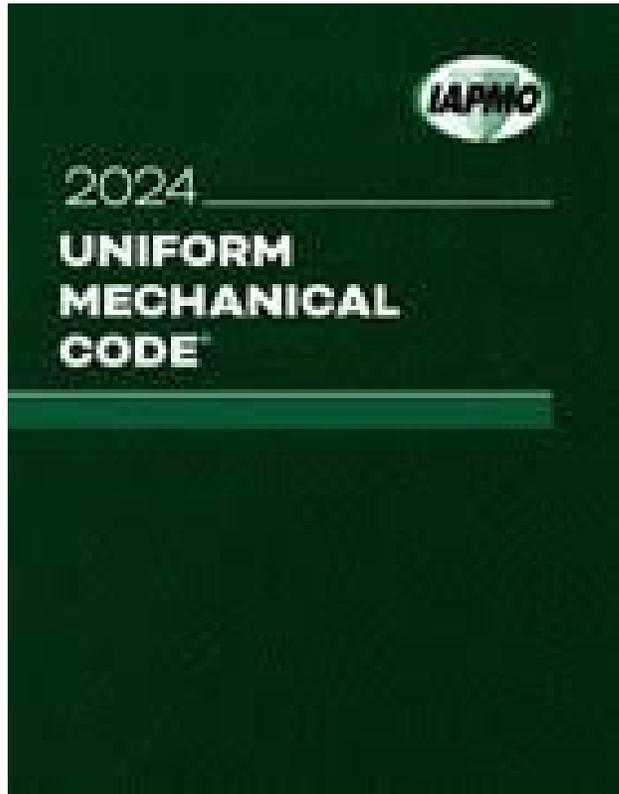
Who we are

- Founded in 1993
- Our core purpose is helping people survive and thrive
- We want to help elevate HVAC contractors to craftsmen who make buildings comfortable, healthy safe and efficient
- We do this by providing training, certification, and support to HVAC contracting companies large and small

TAB Training and Certifications Offered

- Residential Air Balancing
- Commercial Air Balancing
- Test & Certify Ventilation Systems & Economizers
- Hydronics Testing & Balancing
- Advanced Air & Hydronic Balancing

Why I Proposed This Session Topic



- Proposals were put forth to require TAB to be performed by individuals certified by one of 3 specific entities
- I estimate this would have cut labor supply for TAB by about 70% where the UMC is used as the model code (CA, NV, NM)

So, What Happened?

- The Technical Committee (TC) recognized the language was overly restrictive and added “or other ANSI-accredited agencies”. Approved as amended.
- 3 TC members still objected as lacking supporting data and being overly restrictive, which sent it to the Technical Correlating Committee (TCC) to resolve the conflict.
- The TCC modified the addition to read “or other equivalent approved agencies”.
- Approved: Acceptable to the code official
- Implication is states, counties, cities, or individual inspectors will take a closer look at who is qualified to perform balancing

403.10 Air Balance ... All testing and balancing shall be performed by a technician certified by the Associated Air Balance Council (AABC), the National Environmental Balancing Bureau (NEBB), or the Testing, Adjusting and Balancing Bureau (TABB), or other ~~ANSI-accredited agencies~~ equivalent approved agencies.

That's Not All, Folks

- Section 504.3 Domestic Range was extensively reworked through several proposals on the topic
- Previously the section only required that exhaust ducts were made of metal and were smooth inside
- New section provides UL/ANSI references for appliances and requirements for ducting
- Adds a requirement for verification of airflow, operation, and design intent by a certified TAB technician

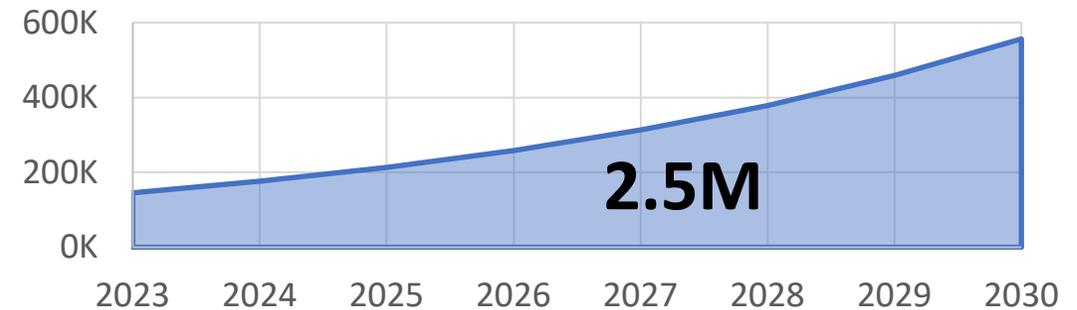
504.3 Domestic Cooking Exhaust Equipment ... (7) A physical verification of air volume, operation, and design intent shall be performed by a certified Testing, Adjusting, and Balancing (TAB) technician. The TAB technician shall be certified by the Associated Air Balance Council (AABC), the National Environmental Balancing Bureau (NEBB), or the Testing, Adjusting and Balancing Bureau (TABB), or other equivalent approved agencies.

Market Impact – California Example

**How many new homes does CA build?
How many does it need?**

- CA currently builds around 120,000 new housing units/year¹
- Needs to build 2.5M units by 2030²
- 21% annual growth required
- Implies about 560,000 units/year by 2030

New Homes Needed By 2030



1. <https://journal.firsttuesday.us/the-rising-trend-in-california-construction-starts/17939/>
2. <https://statewide-housing-plan-cahcd.hub.arcgis.com/>

Market Impact – CA Example

How Many Certified TAB Firms & Technicians are there in CA?

Certifying Agency	Companies	Technicians
NEBB ¹	31	115
TABB ²	29	?
AABC ³	12	30
NCI ⁴	217	453
Total	289	665 est.

¹<https://online.nebb.org/nebbsa/f?p=NEBBSSA:17800:4175906800707> referenced 1/19/2023

²<https://www.tabbcertified.org/find-a-contractor/> referenced 1/19/2023

³<https://www.aabc.com/member-locator/?by=state&search=california&radius=5mi> referenced 1/31/23

⁴NCI internal systems referenced 1/19/2023

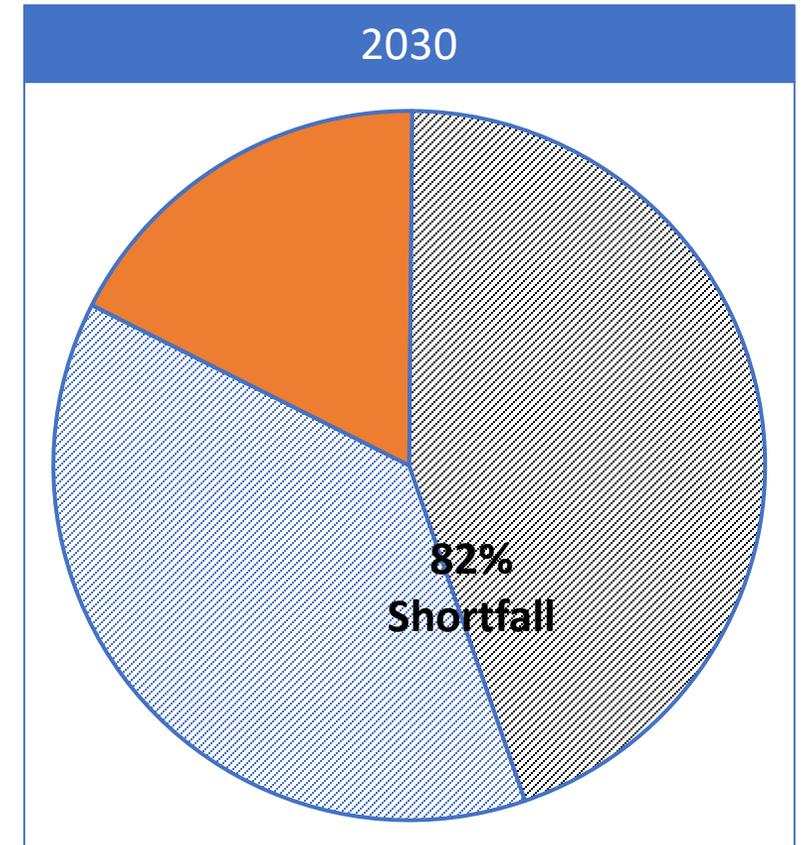
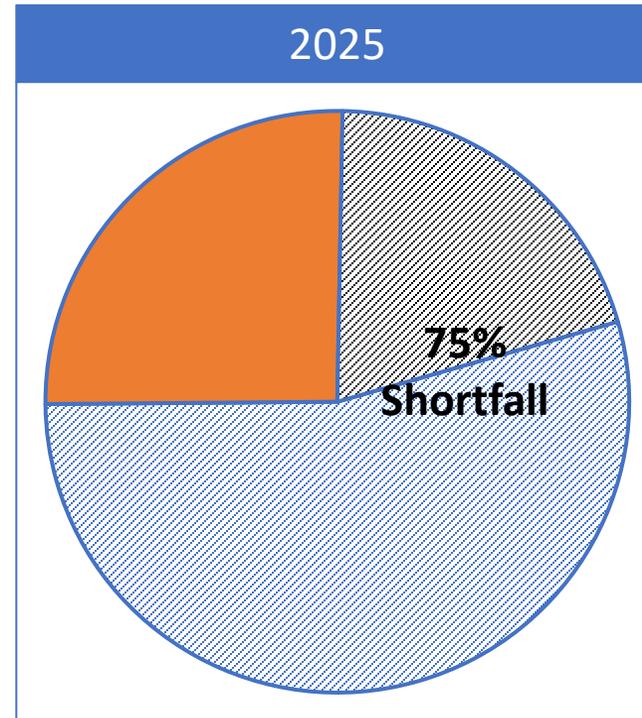
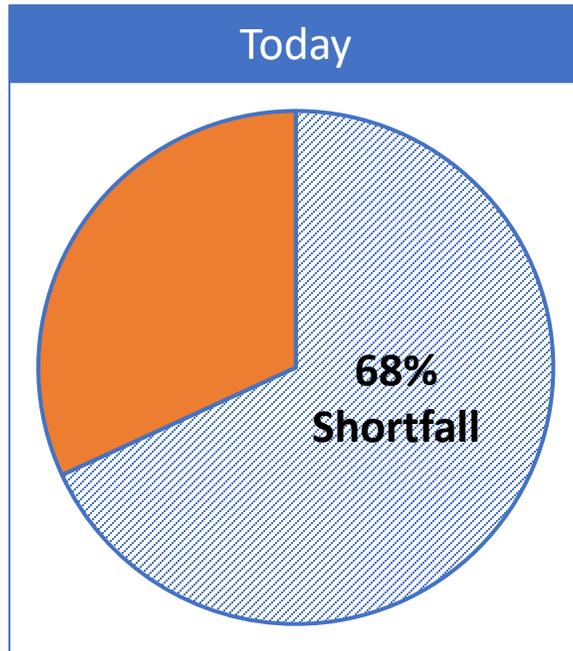


How Many Additional TAB Technicians Needed by 2030?

- Estimate 4 homes per tech per day, 260 workdays per year
- Each tech can do 1,040 homes per year
- **By 2030:**
 - $556,000 \text{ homes/yr} \div 1,040 = \mathbf{535}$ new certified TAB technicians by 2030
- **By 2025:**
 - $176,000 \text{ homes/yr} \div 1,040 = \mathbf{169}$ new certified TAB technicians by 2025



What If NCI Isn't "Approved"?



Why Can't We Just Certify More TAB Techs?

- TAB certifications are primarily targeted at large commercial
- Certifications require multiple years of prior experience in TAB work
- Certified technicians must be employed by a certified firm and/or work under a certified supervisor
- Some certifications only open to union employees

What Can We Do?

Model Code Developers

- Require evidence of market feasibility prior to approving more stringent requirements
- Tailor code requirements for different building sectors (e.g. Residential, Commercial, Industrial, Healthcare)

States, Counties and Cities

- Think carefully about supply/demand when defining who can perform code-required TAB work
- Consider code amendments to exempt certain building sectors from certain parts of the code that would prove to be onerous in your jurisdiction

TAB Certification Agencies

- Segment certification offerings (e.g. Residential, Light Commercial, Large Commercial) with appropriate qualification, training, and exam requirements for each

What Can We Do? Continued

TAB Firms

- Expand services to include light commercial and residential
- Seek out certifications appropriate for the level of work each employee does
- Add non-code-required services like diagnostic balancing and retro-balancing to fill out responsibilities and keep light commercial/residential balancers engaged

HVAC Contracting Companies

- Expand services to include TAB for whatever market(s) your company serves
- Get technicians trained and certified in light commercial or residential air balancing
- Offer diagnostic and retro-balancing to earn a reputation for solving customer problems
- Use air balancing as a differentiator from competitors

Everybody

- Get involved in code development or adoption at whatever level makes sense for you. Sit on code committees, participate in state and local government, etc.

Questions?

Contact me: benl@ncihvac.com