

HVAC LICENSING
AND TESTING
REQUIREMENTS
STUDY

REPORT 05-12

REPORT DIGEST

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STATE OF WASHINGTON

JOINT LEGISLATIVE AUDIT AND
REVIEW COMMITTEE

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Study Mandate

The 2004 Supplemental Operating Budget directed the Joint Legislative Audit and Review Committee (JLARC) to review the licensing, certification, and testing requirements of HVAC/R (Heating, Ventilation, Air Conditioning, and Refrigeration) contractors and installers. This report: 1) explains what HVAC/R work involves, 2) describes current licensing and certification requirements, and 3) makes comparisons between HVAC/R licensing and certification requirements and professions within Washington and other states.

What Does an HVAC/R Contractor Do?

HVAC/R systems control the temperature and humidity of air in a building. An HVAC/R technician works on equipment such as boilers, heat pumps, air conditioning units, and furnaces. Work might range from taking apart a home unit when a breakdown occurs, identifying the problem and making the necessary repair, to complex, high voltage installation and maintenance of systems in commercial buildings. This involves work in several trades, including sheet metal, plumbing, and electrical work.

What are the Current Certification and Licensing Requirements?

Six Washington cities require licenses for gas and mechanical work, refrigeration, and oil work; however, the state only regulates the electrical work of HVAC/R. Licensing is handled by the Department of Labor & Industries (L&I), who is statutorily charged to license and certify electrical work—with few exceptions—based on the furtherance of safety to life and property.¹ L&I is advised on electrical regulation by the Electrical Board, a 15-member advisory body whose membership is set in statute. Specialty electricians, such as HVAC/R, account for approximately 40 percent of regulated electricians, but are not formally represented on the Board.

A person engaged in the HVAC/R business currently can be required to obtain licensure or certification in four regulatory classifications:

- General or specialty contractor: Provides consumers with a means of financial protection, but does not assure any particular knowledge or skills in a given field;
- Electrical contractor: Required to create a business that employs workers to do electrical work on HVAC/R;
- Electrical administrator: The business must have at least one employee certified as an administrator, who ensures that work is performed in accordance with state law; and
- Journeyman electrician or licensure in one of the two HVAC/R specialties: Individuals who work on the electrical components of HVAC/R must obtain one of these licensures.

Electrical certification and licensing is a fee-supported activity, which means that the electricians and contractors pay for their regulation, not taxpayers. Currently, there are approximately 1,020 Washington-based contractors who perform HVAC/R work. Of this group, 570 perform electrical work on HVAC/R and are licensed as electrical contractors who pay licensing fees to L&I's Electrical Fund.²

¹ RCW 19.28.010.

² This count excludes 65 firms registered as electrical contractors based in other states.

Comparing HVAC/R Certification and Licensing Within Washington and With Other States

In order to evaluate HVAC/R licensing, certification, and testing requirements, JLARC made a series of comparisons and interviewed a range of Washington HVAC/R contractors based on income and location:

- We compared **fees** with other certificates administered by L&I and with other professional certificates in the state. We found that HVAC/R **fees are comparable with other specialty certificates**, as well as with **other professional certificates**.
- We compared the HVAC/R **certification requirements** with other specialty certificates administered by L&I. In the course of doing so, **we found that current certification requirements do not guarantee that a technician has electrical experience** before obtaining a specialty electrical certificate.
- We surveyed Washington HVAC/R contractors on their impression of the scope of work and testing requirements for the state HVAC/R certificate. We found that **most were satisfied with the current scope of work** allowed by the HVAC/R specialty certificate, but that many would **prefer an exam that is focused on more than the electrical work** of their job.
- We looked at other states' regulatory approaches, and found that there are several approaches to HVAC/R certification. Many **certify HVAC/R as a separate trade**; others use an **exam similar to Washingtons**.

Recommendations:

1. Existing certification requirements do not guarantee that an electrical trainee has electrical knowledge or experience. **L&I should provide consumers with assurance that technicians have electrical knowledge and experience before certification.**
2. The methodology for determining training hours is not clear to many contractors, and many HVAC/R firms are not aware of options to reduce required training hours. **L&I should more clearly explain its methodology for determining training requirements, and clarify agency rules to inform HVAC/R technicians of their industry's options to reduce required training hours.**
3. Based on JLARC's survey of contractors, and our review of certification requirements of Washington cities and models of other states, certifying other aspects of HVAC/R work may be an option for the state to consider. **To provide policymakers and industry with a better sense of possible options, L&I should provide fiscal and public safety estimates of scenarios that would certify other aspects of HVAC/R work.**
4. Specialty electricians, such as HVAC/R technicians, represent 40 percent of all certificated electricians in the state and 41 percent of electrical contractors, but are not represented on the Electrical Board. **If the Legislature wishes to more broadly represent regulated entities with knowledge of trade-specific equipment, it should revisit the Board's current composition.**