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Title: 'You Can't Build a Great Building on a Weak Foundation' - How a Shortage of Skilled Trade-Workers Impacts your Energy Efficiency Program's Ability to Scale Up

Abstract: Across the HVAC and water heater markets, there is a shortage of qualified skilled labor, which is impacting the installation of new, high-efficiency equipment. Since contractors are stretched thin, they do not have time to attend trainings to support their efforts to sell more efficient equipment to consumers. This talk will delve into the causes and implications of the labor shortage, as well as novel in-roads for programs to enter the supply chain at different levels and support the labor force they depend on.

In Fall 2018, on behalf of the Northwest Energy Efficiency Alliance (NEEA), the presenters conducted ethnographic research with contractors and distributors in the residential HVAC and water heater markets. Through ride-alongs, site visits, and in-depth interviews, the research explored supply chain dynamics and how market actors consumers, contractors, distributors, manufacturers, and third-party actors influence equipment installation decisions. The ethnographic approach allowed the research team to explore the full context of contractor decision-making, beyond customer interactions alone, and understand the day-to-day concerns of contractors.

Repeatedly throughout the research, market actors from all levels of the supply chain spoke of an industry-wide labor shortage. They attribute the causes of the shortage to the cultural devaluation of trade work, societal pressures to attend four-year colleges, and continuous funding cuts to high school trade programs.

The labor shortage has manifested in several ways, most relevant to energy efficiency programs: The amount of training contractors receive on new equipment, sales tactics, and business management can impact their recommendation of new, higher efficiency equipment options to customers. This is important for utility programs to consider due to the strong influence of contractor recommendations on consumer equipment selection.

Distributors offer regular trainings for contractors, but attendance is a continual struggle due to the time and financial investment required. Pair this with the fact that demand for HVAC and water heating services vastly exceeds supply, and contractors have little incentive to invest in training. Solutions to this problem must go beyond more trainings; we must engage the supply chain at different decision points and identify opportunities to support the existing labor force, rather than ask more of them.