



Virginia Association of Counties

ACHIEVEMENT AWARDS



SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2025.** Please include this submission form as the first page of your electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).

PROGRAM INFORMATION

County: Chesterfield

Program Title: HVAC/R Advisory Committee

Program Category: Community, Economic Development & Land Use

CONTACT INFORMATION

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SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: Lisa High

Title: Chesterfield Co Public Schools Deputy Superintendent

Signature: 

Executive Summary:

The Chesterfield Career & Technical Center@Courthouse (CCTC) Heating, Ventilation, & Air Conditioning (HVAC/R) Advisory Committee meets twice annually to enhance the educational experience of students pursuing careers in HVAC/R. The committee reviews the curriculum and instructional resources in the fall, offering feedback to ensure alignment with current industry standards. Members also volunteer in the classroom monthly, providing career awareness presentations and promoting industry opportunities. They actively encourage students to earn the Universal EPA card, rewarding successful candidates with a free Fieldpiece Multimeter. Beyond classroom engagement, the advisory committee supports student learning through the coordination and judging of SkillsUSA competitions. In the spring, members participate in Trades Interview Days, providing students with valuable opportunities to interview for part-time, full-time, and Work-Based Learning (WBL) positions. This program strengthens the connection between education and industry, ensuring students are well-prepared for successful careers in HVAC/R.

Problem or need addressed by the program:

The Chesterfield Career & Technical Center@Courthouse HVAC/R Advisory Committee was established to address the ongoing need to align and update the HVAC/R curriculum with evolving industry standards. As the HVAC/R sector continues to advance, it is crucial that educational programs keep pace with technological changes, industry certifications, and workforce expectations. Without regular, structured input from industry professionals, students may lack the necessary skills to meet employer demands, which can directly impact their job readiness.

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To meet this need, the committee meets twice annually to review and provide feedback on the curriculum, ensuring that course competencies remain relevant, appropriately paced, and in alignment with industry practices. This process directly supports the county's commitment to producing career-ready graduates who meet both state and national standards. Through monthly classroom engagements, career awareness presentations, and industry mentorship, committee members also help bridge the gap between students and future employment opportunities. Their involvement in events like SkillsUSA competitions and Trades Interview Days further strengthens the connection between classroom learning and real-world experience.

Program Description:

The committee members play a crucial role in enhancing the educational experience for students. The committee's primary objective is to provide students with comprehensive technical education that aligns with industry standards, preparing them for immediate employment or further training in the HVAC/R field. The committee provides classroom lessons covering essential topics like refrigeration cycles, electrical wiring, soldering, brazing, airflow, and tool usage, all reinforced by real-world perspectives from industry professionals.

Additionally, the committee contributes by regularly reviewing instructional materials and recommending new equipment to support skill-building. The committee also provides up-to-date lab equipment and ensures students have hands-on experience with modern tools. The committee members also volunteer for career-related events such as Interview Days, Advisory Night, and Career Signing Day. These events create valuable connections between students and potential employers, facilitating both part-time and full-time employment opportunities through the WBL program. More importantly, committee members hire students through the WBL program and the annual Interview Days event, helping to launch successful and rewarding careers that meet workforce demands.

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The advisory committee meets frequently with students, providing guidance and mentorship throughout the program. The member's regular visits help ensure that students understand the realities of working in the HVAC/R industry, fostering lifelong learning and reinforcing the importance of academic rigor in technical fields. This ongoing engagement, coupled with the committee's direct role in hiring students, has significantly contributed to the program's success. The program maintains full enrollment each year and regularly receives more applications than it can accept.

Given the rapidly evolving nature of the HVAC/R industry, the advisory committee emphasizes the importance of lifelong learning. Many students mistakenly believe that entering a trade means leaving behind academics, but committee members advocate for continued education in this science- and math-based field. Their support is invaluable, both for the instructor and for the students' long-term success.

The collaboration between the committee, the instructor, and industry partners has established a model for success in career and technical education. The program not only provides students with essential technical skills but also emphasizes the importance of continued education and professional development, ensuring that graduates are prepared for the ever-evolving HVAC/R industry. In recognition of the program's outstanding outcomes, the HVAC/R program and its advisory committee were honored at the February 2024 CCPS School Board meeting for their exceptional contributions to student success.

The HVAC/R Advisory Committee plays an instrumental role in enhancing the educational experience for students at the CCTC, fostering strong partnerships between education and industry. Through regular involvement, including classroom instruction, equipment donations,

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and WBL opportunities, the committee ensures that students receive up-to-date, hands-on training in HVAC/R skills while preparing them for successful careers after graduation.

Through these dynamic partnerships, the HVAC/R program has become a cornerstone of CCTC's career readiness initiatives, providing students with the tools and connections needed to thrive in the workforce.

Program Cost:

The HVAC/R program at CCTC benefits greatly from the dedication and support of the advisory committee, which contributes to the program's success without incurring significant operating or capital costs. One of the key strengths of this program is that the advisory committee members, as employer partners, volunteer their time and expertise to ensure students receive high-quality instruction and career guidance. These industry professionals donate countless hours, teaching classroom lessons, conducting mock interviews, providing mentorship, and offering real-world insights into the HVAC/R field.

Additionally, committee members donate essential lab equipment and tools, keeping the program up to date with current industry standards. This generous support eliminates the need for significant capital investments from the county, enabling the program to provide students with hands-on experiences using the latest technology and equipment without incurring additional expenses. In many cases, the committee members also provide direct feedback on equipment needs and industry trends, ensuring that the program remains aligned with the evolving demands of the HVAC/R industry.

For a county looking to replicate this program, the primary costs would include basic instructional supplies, student safety equipment, and classroom materials, as well as the

infrastructure to support the WBLg initiatives, e.g., administrative overhead, and space for events like Interview Days and Career Signing Day. However, the major cost-saving factor in replicating this program is the invaluable volunteer support from employer partners, significantly reducing the financial burden on the county.

Results/Success of the Program:

The HVAC/R program at CCTC has demonstrated significant success in achieving its objectives, notably through its ongoing accreditation by HVAC/R Excellence (The ESCO Group), which is renewed every six years. An essential part of maintaining this accreditation involves submitting an annual report to ESCO, providing data on student credentialing exam results. Over the course of the school year, students take five key assessments, HVAC/R Excellence Air Conditioning Employment Ready, Electrical Employment Ready, and Gas Heat Employment Ready. The EPA 608 exam, which grants students the Universal EPA card required for employment in the field, consistently yields high pass rates. For the 2022-23 school year, pass rates were: 100% for Workplace Readiness Skills; 86.67% for EPA Universal; and 92.86% for the HEAT.

In addition to credentialing success, the committee contributes to student development through interactive events such as the CCTC Ready/Set/Hire days. Over the course of two days, selected HVAC/R students participate in virtual mock interviews with committee members, while others observe and later receive critical feedback to improve their interview skills. Similarly, during Trades Interview Days, students have opportunities to interview for part-time and full-time positions, as well as WBL experiences. Advisory members also provide valuable feedback on student performance.

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Furthermore, at the end of each school year, program completers are contacted to assess their employment status, and committee members are consulted to identify available job openings.

Over the past nine years, this initiative has led to numerous program graduates securing employment with committee member companies, demonstrating the long-term impact of these industry partnerships. The survey response rate for employment status remains consistently high, highlighting the effectiveness of this program in connecting students to career opportunities.

Worthiness of Award:

The HVAC/R program at CCTC exemplifies the principles of excellence in career and technical education. The strong partnership between the program's advisory committee, industry professionals, and the community has led to consistently high enrollment, hands-on learning experiences, and successful career outcomes for students. The committee's active role in developing curriculum, donating equipment, mentoring students, and providing employment opportunities through WBL and Interview Days directly contributes to the program's success. This collaboration ensures that students are not only well-versed in current industry standards but are also prepared for lifelong learning in an ever-evolving field.

The program's consistent growth, with more applications than can be accepted each year, is a testament to its effectiveness in preparing students for immediate employment or further education in the HVAC/R field. In addition, the HVAC/R program's involvement in regional initiatives such as *Mission for Tomorrow* and recognition at the February 2024 CCPS School Board meeting further highlight its positive impact on the community. The combination of rigorous instruction, industry partnerships, and student success makes this program deserving of the 2025 Achievement Award.

Chesterfield County, VA

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Supplemental Materials:

[Link](#)