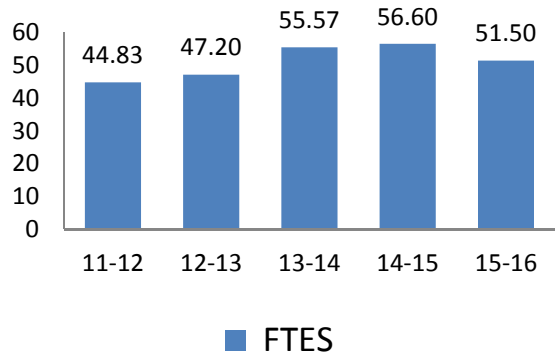


## HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION (HVAC/R) — 2015-2016



### Description:

The program prepares students for entry level employment in the residential and commercial HVAC/R repair and installation. With climate change and longer dry periods in the west, HVAC/R technicians are in demand. Many have their own business or work as independent contractor for box stores. The department offers Environmental Protection Agency (EPA) certification, required for handling refrigerant gases used in the industry.

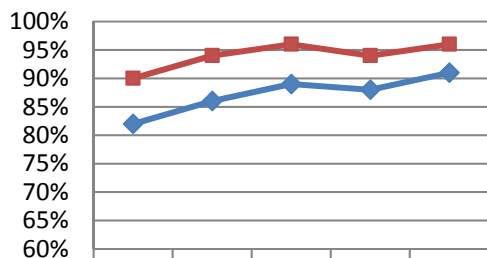
### Assessment:

1. The FTEF has remained steady and unchanged while FTEs has slightly declined common to most programs on campus. The decline matches the division and college-wide trends possibly due to the improved economy resulting to a low unemployment rate.
2. The WSCH continued a slight decline due to the lab intensive classes wherein students' capacity per section were reduced to improve the quality of the instructional delivery. Improved student success and retention rates were dramatically noticed.
3. Student success increased back to the previous two year levels while success rates have surpassed these levels as stated in the above item.

	10-11	11-12	12-13	13-14	14-15	15-16
Duplicated Enrollment	258	218	229	271	276	252
FTEF	3.98	3.44	3.34	4.48	4.82	4.82
WSCH per FTEF	381	391	425	372	352	320

### Department Goals:

1. Update course content to include smart technologies and continue to develop an industry recognized certificate program (RSES) to be integrated with our existing program.
2. Continue to update laboratory equipment to meet industry standards.
3. Increase number of section offerings during the day to increase enrollment and attract new student population since currently all classes are in the evening and are mostly attended by incumbent workers.
4. Expand our marketing and outreach strategies to increase student enrollment and counter the college-wide trend of reduced enrollment due to high employment economy.
5. Establish more industry-wide partnerships to provide student internship/work experience opportunities.



### Challenges & Opportunities:

1. Hard to find part-time faculty to teach in morning section due to most qualified instructors are typically already employed in the industry or own their own business.
2. Classroom and Lab spaces are being used to capacity. Space remains a premium and to increase class sections or sizes remain a challenge. Only one LAB serves the program and that continues to limit growth.
3. During low-unemployment economy periods, students' focus and priorities are not on their educational goals but remain to be on gainful employment.
4. Seek out industry partnerships to explore internship/work experience opportunities for students.
5. Lack of funding to adequately upgrade lab tools and equipment to meet new technologies and needs of the industry and employers.

	10-11	11-12	12-13	13-14	14-15	15-16
Sections	12	10	10	13	14	14
% of online enrollment	0%	0%	0%	0%	0%	0%
Degrees awarded*	2	1	0	2	3	
Certificates awarded*	14	6	8	8	12	

Award Source:

[http://datamart.cccco.edu/Outcomes/Program\\_Awards.aspx](http://datamart.cccco.edu/Outcomes/Program_Awards.aspx)

TOP Code: 094600

\*Data will be available in October 2016

The department will continue to prospect external grant funding including submitting proposals for consideration under the \$200M Strong Workforce Program in order to grow and enhance the program.

**HEATING, VENTILATION, AIR CONDITIONING  
& REFRIGERATION (HVAC/R) — 2015-2016**

	<p><b>Action Plan:</b></p> <ol style="list-style-type: none"><li>1. Continue to develop industry recognized certifications.</li><li>2. We will work with HR to increase the pool of qualified part-time faculty who may be available to teach during the day.</li><li>3. We will encourage and provide the adjunct faculty with training opportunities through professional development to stay current with the emerging technologies in this field.</li><li>4. Build and strengthen industry/employers' partnerships to explore internship/work experience opportunities for our students.</li><li>5. Promote and market the program through outreach programs that include visiting local high schools and establishing information booths in industry conventions and trade shows to promote the program in order to increase enrollment targeting under represented students.</li><li>5. Continue to pursue and apply for grant funds including submitting proposals under the \$200M Strong Workforce Program to improve the quality and increase enrollment of students in the HVAC/R program.</li></ol>
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