

## Labor Market Information (LMI) Program Health Indicators

### Program Information

Program Name: [HVAC/R Technology, AAAS](#), [HVAC/R Technology, Certificate](#)

Program CIP: [47:0201](#)

Program SOC: [49-9021](#)

Definition of Market: **Prosperity Region 4 – Allegan, Barry, Ionia, Kent, Lake, Mason, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Osceola, Ottawa Counties**

Date: **April 8, 2016**

### Data Summary

Indicator	Value	Value 2	Color
<b>Current Workforce Size 2014-2015</b>	1534	1607	
Projected Growth 2014-2024	18%	274 Jobs	
2014 Annual Openings/Projected	118	73	
Regional Completions 2014	49	Supply Gap (-69)	
Percent Potential Retirement over the next 10 Years.	14%	226 jobs	
Average Regional Job Postings over 3 Months	31		
Posting Intensity for Regional HVAC/R Job compared to All Jobs in Region	5:1	5:1	
Average Monthly Hires to Average Monthly Postings	66:23	3:1	
Median Hourly Wage	\$20.86		

### Decision Making Process

1. How large is the current WF? [There were 1534 workers regionally in HVAC/R in 2014, the number grew to 1607 in 2015 \(5% increase\)](#)
  - a. What is the percentage growth projected over the next 10 years? [18%](#) (Faster than average.)
  - b. By how many workers will be added to the occupation over the next 10 years? [274](#)

Is the size and growth of the occupation sufficient to support the program? [Yes](#)

If yes, Healthy continue to #2.  
If no, consider #2, #3

2. What were the annual openings in 2014? 118 (This surpasses the projected annual 73 openings over the next 10 years.)
- a. How many completions were awarded in 2014? 49
  - b. Supply Gap (-69)

Are the annual openings greater than the completions? Yes  
If no, we are probably over producing graduates in this area, but consider #3

3. What percentage of the occupation may retire over the next 10 years?
- a. Greater than 20%
  - b. 10 -20% (>200 potential retirements)
  - c. Less than 10%

Yes if "a." or "b.", consider relative to #1  
If no, consider # 1 & #2 and other factors

4. What were the number of job postings over the past 3 months?
- Jan.: 10 postings in our 13 county region  
Feb.: 12 postings in our 13 county region  
Mar.: 9 postings in our 13 county region

If "yes," or "growing" go to #5  
If low or none, consider gathering environmental scanning data (occupation may no post jobs online)

5. What is the Posting Intensity of the occupation compared to the Posting Intensity of the Region? [Compare the current month's total postings/current months unique postings (Posting Intensity) to the region's Posting Intensity] HVAC 5:1, Region 5:1

- a. If Occupation's Posting Intensity is  $\geq$  Regional Posting Intensity, move ahead
- b. If low, consider all other factors, including environmental scanning and #6

6. What is the ratio of average monthly hires to average monthly postings? 66:23 or 3:1

Health If high, Yes  
If low, consider 1-5 or seek out environmental scanning data

7. What wages can a completer of the HVAC/R program expect?

25 <sup>th</sup> Percentile	75 <sup>th</sup> Percentile	Median Wage
\$16.37	\$25.56	\$20.86

Commented [MC1]:

- a. If Median Wages greater than \$12/hour, Yes.
- b. If less than \$12/hour, examine 1-6 and get employer data about wage.

**Analysis Narrative**

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**The number of Heating, Ventilation, and Air Conditioning/Refrigeration (HVAC/R) Installers and Repairers in the region are growing and will continue to grow through 2024.**

In 2014 there were 1,534 HVAC/R technicians in our 13 County Area. The number grew to 1,614 in 2015, a 5% increase. The 10 year forecast for this occupation shows it **growing faster than average** at a rate of 18%. This will add 274 jobs to the occupation between 2014 and 2024.

Growth is not the only source of openings for HVAC/R Installers and Repairers. Seventy-Three (73) openings are projected annually due to growth and replacement during the same 10 year period. The demand for HVAC/R Installers and Repairers is greater than the supply which means there are more openings than completers (49 in 2014) annually. In actuality there were 118 openings in 2014 causing a supply gap of (-69) in the region. In part, the number of annual openings will be driven by the fact that 14% (226 out of 1534) of the workforce could potentially retire over the next ten years.

Another indicator of a growth in the occupation is reflected in the number of monthly internet job postings. For the past 3 months there have been an average of 10 postings per month in our region. Internet postings are not the only way that the HVAC/R field uses to recruit new workers, but it is one indicator of demand.

Another indicator of job demand is the ratio of the number of average monthly posting to the number of unique postings (Defined as Posting Intensity). For HVAC/R this ratio is 5:1 and is equal to the ratio for all job ads (5:1) in the region. This is an indicator that employers are making an average effort to get qualified workers as evidenced by the number of Internet job ads.

A similar metric that indicates that jobs in HVAC/R are in demand is the ratio of average monthly hires to average monthly postings. There are 3 hires for every job ad posted which indicates a strong demand for HVAC/R Installers and Repairers.

Finally the median wage is well above \$12/hr. and the starting wage is between \$12.73 and \$16.57 per hour. (Starting wages could vary depending on experience, geographic region, and employer.)

**Observations: Considering all the data above, from multiple sources, growth and demand for HVAC/R technicians is high and GRCC could potentially increase the number of program completions to meet market demand. This is especially true since the gap between completers and the number workers needed in the field is increasing. Data show that the number of actual openings is higher than the projected openings. (See Threats below.)**

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## Opportunities & Threats

### Opportunities

#### [Get Smart: 5 Trends Driving the HVAC Industry in 2015](#)

#### [HVAC industry trends](#)

A recent development which may increase the need for HVAC technicians is the new data center to be established by Switch in Grand Rapids. <http://www.grbj.com/articles/83828-company-plans-5b-data-center-campus-at-steelcase-pyramid>.

There are also other data centers expanding in the GR area which may have similar needs. <http://www.grbj.com/articles/84654-network-provider-doubles-data-center>.

### Threats

Ferris State University offers an Associate's Degree in HVAC and is the only other program in the region. In 2013 there were 54 Associate's and Certificates awarded in the 13 county region and there were 89 actual openings in the same region (Supply Gap 35). **In 2014 there were 49 completers compared to 118 actual openings (Supply Gap 69)**. Although there are only 75 openings projected annually over the next 10 years, for the last 2 years the number of openings have surpassed the projections. [HVAC technicians are undersupplied in the region](#).

### Analysis Questions

- Does the traditional LMI support the development or continuation of this program?
  - If yes, move forward
  - If yes with concerns/considerations, identify next step/action plan
  - If no, pursue Program Discontinuation
- Does the Job Postings LMI support the development or continuation of this program?
  - If yes, move forward
  - If yes with concerns/considerations, identify next step/action plan
  - If no, pursue Program Discontinuation
- Does the environmental scanning data support the development or continuation of this program?
  - If yes, move forward
  - If yes with concerns/considerations, identify next step/action plan
  - If no, pursue Program Discontinuation

### Sources and Notes

**Note: Growth rate:** the percent change in the number of jobs added or lost in a U.S. occupation or industry over a given projection period; growth rate adjectives used in the OOH are defined by the following percent changes for the 2012–22 employment projections:

- much faster than the average: 22 percent or more
- faster than the average: 15 percent to 21 percent
- as fast as the average: 8 percent to 14 percent
- more slowly than the average: 3 percent to 7 percent
- little or no change: –2 percent to 2 percent
- decline: –3 percent or more

<http://www.bls.gov/ooh/about/glossary.htm#G>

EMSI Analyst

Labor Insight/Jobs by Burning Glass Technologies

EMSI Job Postings Analytics