

## Memorandum

To: Frank Kobayashi, Associate Vice President, American River College (ARC)

From: Ebony J. Benzing, Research Manager, Center of Excellence (COE), North-Far North region

Date: Monday, April 8, 2019

Re: Program Endorsement request for Construction Apprenticeship Programs

---

## Background

ARC came to COE seeking labor market information for changes to existing CTE Construction Apprenticeships. ARC offers several apprenticeship programs, culminating in an Associate degree, certificate or departmental certificates, in Carpentry, Drywall/Lathing, Electrical, Ironworking, Sheet Metal, Green Technology, Infrastructure, and Utilities. ARC intends to add additional coursework and curriculum that will lead to additional construction careers, including Acoustical Technicians, Carpenters, Drywall Insulators and Lathe Technicians, Hardwood Floor Layers, Millwrights, Pile Drivers, Scaffold Erectors, and Shinglers.

The January 2018 COE report “Construction Cluster and Workforce Needs Assessment, Sacramento Region” is the primary foundation of this memo, and should accompany this memo in any program application packet. Newly included occupational data includes the following occupations: Carpenters (47-2031), Floor Layers, Except Carpet, Wood, and Hard Tiles (47-2042), Floor Sanders and Finishers (47-2043), Pile-Driver Operators (47-2072), Drywall and Ceiling Tile Installers (47-2081), Insulation Workers, Floor, Ceiling, and Wall (47-2131), Roofers (47-2181), and Millwrights (49-9044); data regarding these specific occupational demand and wages, typical education, and educational program supply are at the end of this memo.

## Findings

- The previous 2018 report found:
  - Construction jobs spur the creation of other jobs. For every construction job created in the Sacramento region, 1.2 jobs are created elsewhere as a result of supplier relationships and employee spending. The construction industry contributes about \$34.8 billion in output, 221,300 jobs, and \$17.4 billion in labor.
  - Construction has lower wage earnings for the Sacramento region. Sacramento’s regional earnings are lower than the state, and while the region has a lower cost of living than the Bay Area, the upward pressure on prices has not resulted in higher earnings for most industries studied. Employer representatives confirmed that recruitment and retention were highly challenging, with some employers stealing employees from competitors, and others citing employment losses to the Bay Area and other industries.
  - The Sacramento region is home to an array of training and education assets that serve the construction cluster. The community colleges provide programs in construction, welding, electrical, HVAC, solar photovoltaics (PV), drafting and architecture, engineering, building inspection, pre-apprenticeship, and construction management. Four-year universities provide construction management, facilities management, and engineering programs. A variety of union and non-union apprenticeship programs serves the region and beyond. Private training providers offer electrical and HVAC programs.

- Sub-cluster analysis revealed shortages in certain occupations and the level of severity in the shortage. The occupations with the largest shortages included pipe laying, heavy equipment operation and earth moving, drilling, staple trades (carpenters, electricians, estimators, sheet metal workers, HVAC installers and mechanics, welders, painters, tile and floor workers), architects and engineers, stationary engineers, real estate service providers, and construction managers. The occupations most in need are specific and narrow in a few sub-clusters. For most, there is a widespread, general shortage in the traditional construction trades.
- A look at recent data and projections finds
  - Existing and projected demand are still strong for most construction-related occupations. In the Sacramento region alone, there are a projected 1,666 annual openings with an average projected growth rate of 8.7%. The need for workers trained as Carpenters is high, as this occupation will make up approximately 67% of annual openings.
  - The fastest growing occupations, with a large number of job openings, include Carpenters (11.0% projected growth, 1,121 annual openings) and Roofers (11.6% projected growth, 207 annual openings).
  - Job opportunities for Drywall and Ceiling Tile Installers are expected to decline by almost 3%, but will still have a significant number of annual job openings (283).
  - Median wages for these occupations tend to be lower in the Greater Sacramento region than the Sacramento County Living wage, but most earn more than \$21.00 per hour (\$43,680 per year).
  - Typical entry-level education for these occupations ranges from high school or less to an Associate's degree. Most occupations require moderate-term on-the-job training or an apprenticeship.
  - From 2015-2018, regional community colleges across the North/Far North region conferred an average of 86 awards across three TOP codes (095210,095280, and 094500). American River College was the largest provider of construction-related certificates and degrees.

### **Recommendations**

- Annual job openings for occupations in the North/Far North region is 1,957, while the average number of annual awards specific to the provided TOP codes is 86, thus indicating a gap in supply.
- COE recommends American River College move forward with proposed program changes due to strong, on-going demand for construction-related occupations in the region and across the state.

COE Recommendation	
<input checked="" type="checkbox"/>	Move Forward with Program
<input type="checkbox"/>	Program is Not Recommended
<input type="checkbox"/>	Additional Information Needed

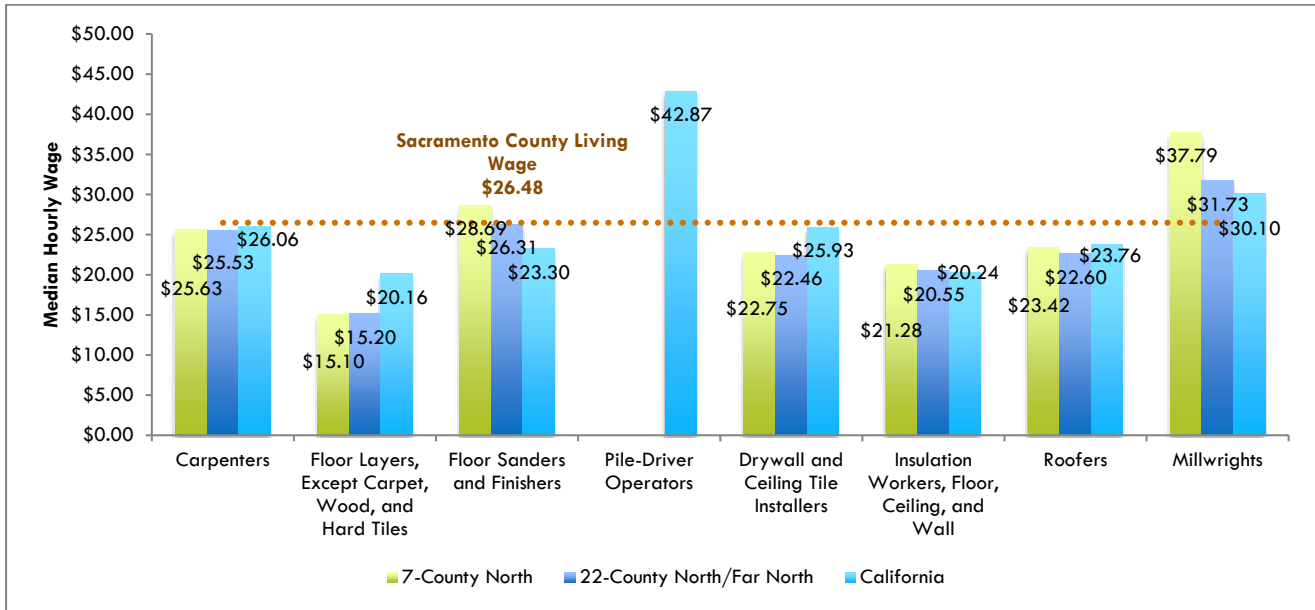
Please contact Ebony J. Benzing, COE Research Manager, for further information at [Ebony.Benzing@losrios.edu](mailto:Ebony.Benzing@losrios.edu) or 916-563-3215.

### Employment and Projected Occupational Demand<sup>1</sup>

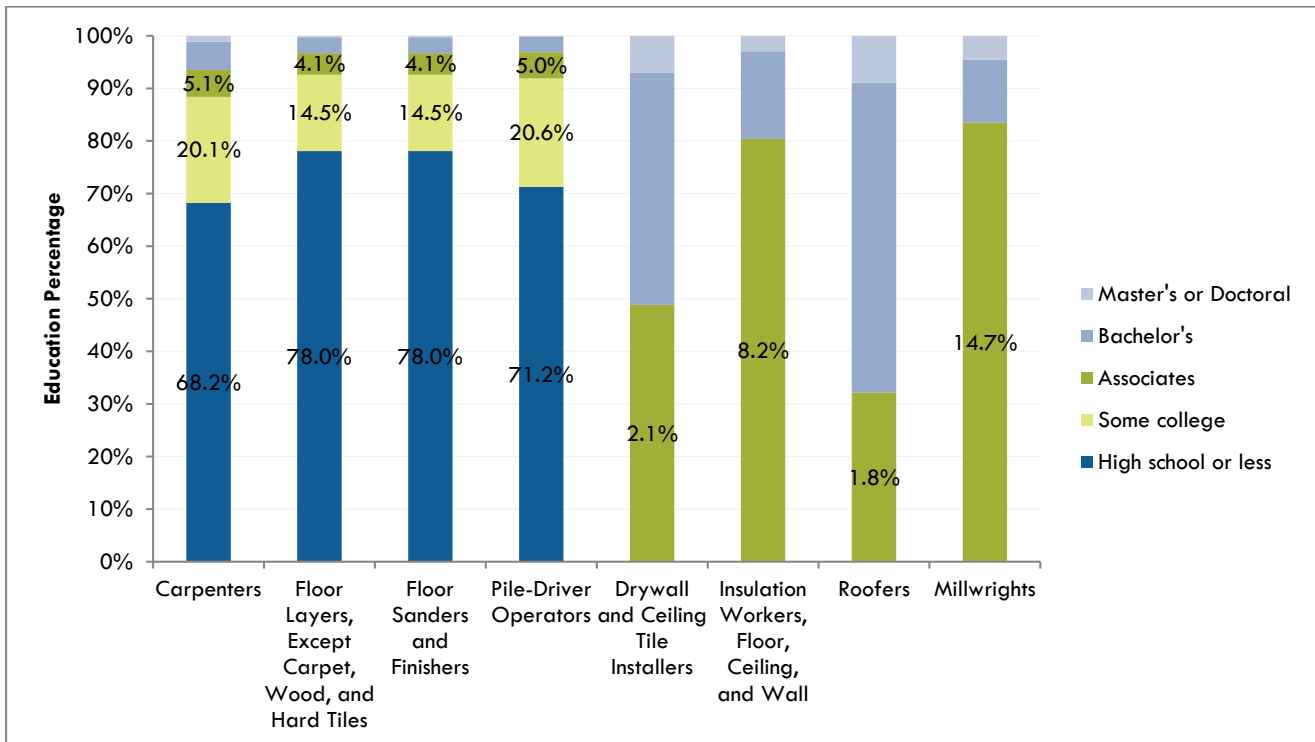
Occupation Segment	SOC Code	2018 Jobs	2023 Jobs	2018-2023 Jobs % Change	Annual Openings
Carpenters	47-2031	9,977	11,076	11.0%	1,121
Floor Layers, Except Carpet, Wood, and Hard Tiles	47-2042	213	233	9.2%	23
Floor Sanders and Finishers	47-2043	13	16	28.1%	2
Pile-Driver Operators	47-2072	<10	11	N/A	2
Drywall and Ceiling Tile Installers	47-2081	2,649	2,575	-2.8%	283
Insulation Workers, Floor, Ceiling, and Wall	47-2131	102	112	10.1%	14
Roofers	47-2181	1,681	1,876	11.6%	207
Millwrights	49-9044	120	136	13.2%	14
<b>Greater Sacramento Region Totals</b>		<b>14,754</b>	<b>16,034</b>	<b>8.7%</b>	<b>1,666</b>
Carpenters	47-2031	11,454	12,632	10.3%	1,285
Floor Layers, Except Carpet, Wood, and Hard Tiles	47-2042	231	251	8.9%	25
Floor Sanders and Finishers	47-2043	17	20	20.0%	3
Pile-Driver Operators	47-2072	11	14	26.6%	2
Drywall and Ceiling Tile Installers	47-2081	2,832	2,732	-3.5%	306
Insulation Workers, Floor, Ceiling, and Wall	47-2131	148	161	9.1%	20
Roofers	47-2181	2,203	2,489	13.0%	277
Millwrights	49-9044	333	350	5.2%	38
<b>North/Far North Region Totals</b>		<b>17,228</b>	<b>18,650</b>	<b>8.3%</b>	<b>1,957</b>
Carpenters	47-2031	98,791	106,801	8.1%	10,706
Floor Layers, Except Carpet, Wood, and Hard Tiles	47-2042	1,831	1,969	7.5%	196
Floor Sanders and Finishers	47-2043	429	467	8.9%	53
Pile-Driver Operators	47-2072	577	618	7.2%	79
Drywall and Ceiling Tile Installers	47-2081	27,512	28,123	2.2%	2,994
Insulation Workers, Floor, Ceiling, and Wall	47-2131	2,157	2,389	10.7%	284
Roofers	47-2181	17,316	19,258	11.2%	2,063
Millwrights	49-9044	2,659	2,876	8.1%	302
<b>California Totals</b>		<b>151,272</b>	<b>162,501</b>	<b>7.4%</b>	<b>16,678</b>

<sup>1</sup> EMSI Data, Accessed 14 March 2019

### Wages for Selected Occupations<sup>2</sup>



### Typical Entry-Level Education and Educational Attainment, Statewide<sup>3</sup>



<sup>2</sup> Emsi 2018.2; QCEW Employees, Non-QCEW Employees and Self-Employed.

<sup>3</sup> "Educational Attainment for Workers 25 years and Older by Detailed Occupation," Accessed 14 March 2019, <https://www.bls.gov/emp/tables/educational-attainment.htm>

**Regional Educational Programs (3-Year Academic Year Average, 2015-2018)<sup>4</sup>**

TOP Code	School - Program	Degrees and Certificates Awarded			
		2015-16	2016-17	2017-18	3-Yr Average
095210	American River College – Carpentry	29	23	48	33
	Sierra College – Carpentry	0	3	2	2
095280	American River College – Drywall and Insulation	7	12	39	19
094500	Sacramento City College – Industrial Systems Technology and Maintenance	34	35	22	30
	Shasta College – Industrial Systems Technology and Maintenance	0	1	1	1
<b>Totals</b>		<b>70</b>	<b>74</b>	<b>112</b>	<b>85</b>

Note: TOP code 095270 Painting, Decorating, and Flooring program award data does not exist for region.

<sup>4</sup> California Community Colleges Chancellor's Office, Data Mart, Accessed 14 March 2019