

October 13, 2017

Dear Educator Colleagues,

Please find the attached Construction Jobs Forecast, developed by the Vermont Talent Pipeline's Construction Industry Collaborative. The Needs Assessment survey had a 100% participation rate among 12 General Contractors across Vermont. In the survey, which ran from July 5 through July 19, 2017, General Contractors were asked to provide details on job projections for **new** and **replacement** jobs in three categories, which they identified as critical for their business:

1. Leadership (i.e. site supervisor, project manager)
2. Trade and Labor (i.e. carpenter, foreman)
3. Professional and Technical (i.e. estimator, project engineer)

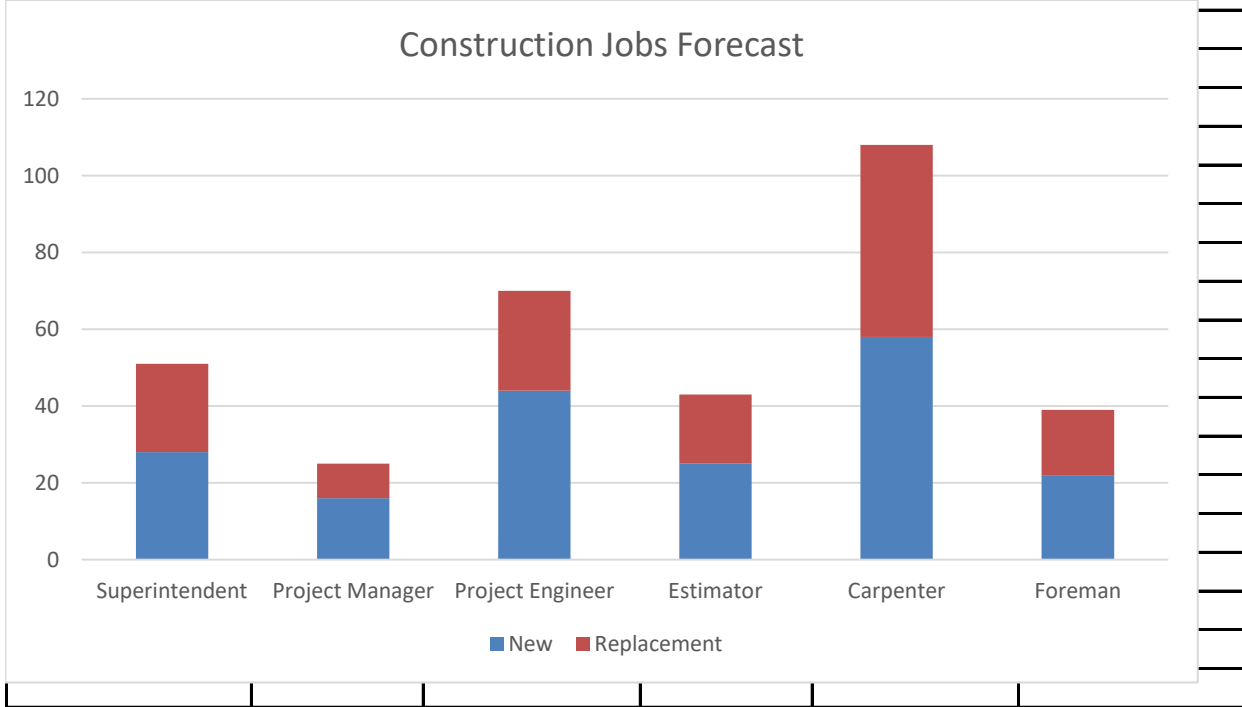
Respondents were also asked about Competencies, Employability skills (soft skills), Work Experience and Industry Credentials. Assumptions that were built into the survey were identified by the employers as follows:

- Assume a small gradual rate of growth across the Construction industry.
- The economic climate is difficult to forecast more than 6 months out.
- The leading economic indicator is design work "in progress".
- **Retirements will outpace new growth in hiring projections.**
- Short-term projections include the need to train and promote existing employees.
- Long-term projections include the need to hire new employees.

Overall, we learned that there are 336 jobs projected in the Construction industry over the next two years among 12 major employers. We also learned that not all of our assumptions were accurate, for example, more than half (57%) of those are new jobs; 43% are replacement jobs for leaving and retiring employees. We invite you to meet with some of our Construction Collaborative members to share programs that support these employer needs.

Construction Needs Assessment Survey - August 2017

2 yr Forecast	New	Replacement	Total jobs	Totals by training program	
Superintendent	28	23	51	76	Leadership
Project Manager	16	9	25		
Project Engineer	44	26	70	113	Prof & Tech
Estimator	25	18	43		
Carpenter	58	50	108	147	Trade & Labor
Foreman	22	17	39		
Total	193	143	336		



Leadership Roles: Supervisor and Project Manager

Education Requirements	% Required	% Preferred
HS or Equiv	25	67
Tech Center Education	67	25
Technical Certification	92	0
Associates Degree	75	8
Bachelors Degree	67	17
Masters Degree	0	8
Column1	Column2	Column3
Competencies	Required	Preferred
Understands construction and reads blueprints, specs, addenda, tech rpts, data, etc.	x	
Identifies issues and adjusts accordingly	x	
Leads teams to ensure project success and profitability.	x	
Provides project cost management and review (invoices, cost coding, requisitions, timesheets, change orders)	x	
Oversees safety compliance of site personnel	x	
Plans, tracks and reviews project production schedule	x	
Manages documentation (field rpts, accident rpts, jobsite files, RFIs, P.O.s, subcontracts, change orders, etc)	x	
Develops and updates schedule with input from team	x	
Develops and maintains customer relations	x	
Develops and maintains subcontractor relations	x	
Creates and maintains employee relations	x	
Utilizes technology for communication and documentation		x
Proficient in math, finances and basic engineering principles		x
Employability Skills	Required	Preferred
Strong work ethic	x	
Integrity	x	
Decision making skills	x	
Professional and Positive Attitude	x	
Problem solver	x	
Develops teamwork	x	
Respectful of others	x	
Communication skills	x	
Collaborator	x	
Negotiation skills		x
Mentorship		x
Lifelong learner		x
Credentials	Required	Preferred
OSHA 30	x	
OSHA 10	x	
OSHA Competencies (scaffold, fall, lead, excavation)	x	
Industry Association Supervisory Certification		x
First Aid/CPR	x	
Professional Engineer		x
LEED		x
Telehandler, Truck or Forklift Operator		x

Construction Needs Assessment Survey
Professional And Technical Roles: Project Engineer and Estimator

Education	% Required	% Preferred
HS or Equiv	75	17
Tech Center Education	42	42
Technical Certification	8	75
Associates Degree	33	58
Bachelors Degree	8	75
Masters Degree	0	25
Competencies	Required	Preferred
Makes decisions in the best interest of the company, both independently and collaboratively.	x	
Understands the construction process, reading blueprints, specs, addenda, tech rpts, etc.	x	
Develops and manages documentation (estimate, schedule, correspondence, etc.)	x	
Utilizes technology for communication and documentation.	x	
Proficient in Math and software systems used for estimating and PM	x	
Seeks and identifies cost saving opportunities (creative pricing, value engineering, etc.)	x	
Identifies issues and adjusts accordingly.	x	
Develops, updates and provides input to production schedule with leadership.		x
Develops and maintains relationships with subcontractors and vendors, expanding the network		x
Employability skills	Required	Preferred
Detail oriented	x	
Strong work ethic	x	
Integrity	x	
Communication (written and oral)	x	
Respects and gets along with others	x	
Professional and positive attitude	x	
Problem solver	x	
Collaborative Team player	x	
Self-starter	x	
Negotiation skills	x	
Life long learner	x	
Credentials	Required	Preferred
OSHA 30		x
OSHA 10		x
OSHA Competencies (scaffold, fall, lead, excavation)		x
Industry Association Certification		x
First Aid/CPR		x
Professional Engineer		x
LEED		x

Construction Needs Assessment Survey
 Trade and Labor Roles: Carpenter and Foreman

Education	% Required	% Preferred
HS or Equiv	17	75
Tech Center Ed	8	75
Technical Certification	0	92
Associates Degree	0	42
Bachelors Degree	8	17
Competencies	Required	Preferred
Performs assigned tasks on a schedule.	x	
Works safely and recognizes safety hazards.	x	
Works with quality and attention to detail.	x	
Knows how to use materials and tools effectively.	x	
Determines tools and materials to perform tasks.	x	
Makes good decisions independently.	x	
Motivates others on the crew.	x	
Submits documentation, as required (time sheets, accident rpts, safety checklists, etc.)	x	
Proficient in math, calculations, geometry and reading a tape measure	x	
Proficient in reading blueprints.		x
Utilizes technology as needed.		x
Employability skills	Required	Preferred
Strong work ethic	x	
Integrity	x	
Respects and gets along with others	x	
Professional and positive attitude	x	
Problem solver	x	
Communication (written and oral)		x
Lifelong Learner		x
Credentials	Required	Preferred
OSHA 30	x	
OSHA 10	x	
First Aid/CPR	x	
OSHA Competencies (scaffold, fall, lead, excavation)		x
Industry Association Certification		x
Telehandler, Truck or Forklift Operator		x