



MSP Sector Analysis  
**Construction**  
Focus on Commercial Trades

**Managers, Supervisors, & Specialized Skills Expect Shortage**  
Approximately 606,000 positions will open up across all industries by 2020, with about 24,150 roles opening in the Commercial Trades. Due to slowing pipeline growth, the 7-county metro anticipates a 3-year construction talent shortage of between 600 and 2,750 workers--including occupations such as pipefitters, carpenters, operating engineers, and supervisors. Approximately 13.3% of the 7-county metro area is a member of a union, compared to 10.7% of the nation overall. In some zip codes, union membership is as high as 27% (55450, 55424), 28% (55372), or 31% (55417).

### Commercial Building

Top Occupations in Demand in the 7-County Metro (sorted by Est. 3-Year Training Need)	Employment Q4 2017	Unemployment Q4 2017	Est. 3-Year Annual Growth	Pathway Action	Est. Ann. Supply Gap*	Est. 3-Year Training Need (Sep. + Growth Demand)
Electricians	3,995	2.4%	0.9%	AP	4	1,473
Plumbers, Pipefitters, & Steamfitters	2,394	2.5%	1.7%	AP	32	913
Construction Laborers	2,534	4.9%	1.1%	E	0	888
Carpenters	2,827	3.0%	0.7%	AP	36	840
Supervisors of Construction Trade & Extraction Workers	1,701	1.5%	1.1%	E	24	562
<b>Sub-Sector Total</b>	<b>37,958</b>		<b>1.0%</b>			<b>12,917</b>

### Highway, Civil, & Transportation

Top Occupations in Demand in the 7-County Metro (sorted by Est. 3-Year Training Need)	Employment Q4 2017	Unemployment Q4 2017	Est. 3-Year Annual Growth	Pathway Action	Est. Ann. Supply Gap*	Est. 3-Year Training Need (Sep. + Growth Demand)
Construction Laborers	990	4.9%	1.4%	E	0	362
Operating Engineers & Other Construction Equipment Operators	879	4.7%	1.5%	E	13	342
Heavy & Tractor -Trailer Truck Drivers	438	2.4%	1.4%	AA	19	167
Supervisors of Construction Trades & Extraction Workers	342	1.5%	1.5%	E	24	118
Cement Masons & Concrete Finishers	277	5.5%	1.4%	E	3	106
<b>Sub-Sector Total</b>	<b>5,627</b>		<b>1.3%</b>			<b>2,010</b>

### Federal, Heavy, & Industrial

Top Occupations in Demand in the 7-County Metro (sorted by Est. 3-Year Training Need)	Employment Q4 2017	Unemployment Q4 2017	Est. 3-Year Annual Growth	Pathway Action	Est. Ann. Supply Gap*	Est. 3-Year Training Need (Sep. + Growth Demand)
Construction Laborers	149	4.9%	1.3%	E	0	54
Carpenters	138	3.0%	1.2%	AP	36	44
Supervisors of Construction Trade & Extraction Workers	85	1.5%	1.6%	E	24	30
Operating Engineers & Construction Equipment Operators	69	4.7%	1.4%	E	13	26
Construction Managers	89	1.1%	1.5%	BA	31	23
Cost Estimators	29	2.1%	1.1%	BA	6	11
General & Operations Managers	29	1.2%	2%	BA	129	10
Cement Masons & Concrete Finishers	32	5.5%	1.4%	E	3	10
<b>Sub-Sector Total</b>	<b>1,147</b>		<b>1.3%</b>			<b>393</b>

### Utilities

Top Occupations in Demand in the 7-County Metro (sorted by Est. 3-Year Training Need)	Employment Q4 2017	Unemployment Q4 2017	Est. 3-Year Annual Growth	Pathway Action	Est. Ann. Supply Gap*	Est. 3-Year Training Need (Sep. + Growth Demand)
Construction Laborers	372	4.9%	3.3%	E	0	167
Operating Engineers & Other Construction Equipment Operators	313	4.7%	3.3%	E	13	148
Supervisors of Construction Trades & Extraction Workers	132	1.5%	3.3%	E	24	57
Pipelayers	114	3.1%	3.2%	E	0	51
Electrical Power-Line Installers & Repairers	134	1.4%	3.5%	E	5	50
Plumbers, Pipefitters, & Steamfitters	94	2.5%	3.2%	AP	32	43
Welders, Cutters, Solderers, & Brazers	71	3.5%	3.3%	E	(10)	33
<b>Sub-Sector Total</b>	<b>2,485</b>		<b>3.2%</b>			<b>1,101</b>

### Industry Detail

	Current			Historical			Forecast	
	Employment Q4 2017	Avg. Annual Wages	Location Quotient	Total 3-Year Employment Change	7-County Metro	Minnesota	Total Growth Demand	Est. Avg. Annual Growth
Commercial Building	37,958	\$80,010	0.98	5,498	5.4%	4.7%	1,101	1.0%
Federal, Heavy, & Industrial	1,147	\$93,151	0.33	-683	-14.4%	-10.0%	46	1.3%
Highway, Civil, & Transportation	5,627	\$73,685	0.88	358	2.2%	2.7%	227	1.3%
Utilities	2,485	\$78,706	0.41	203	2.9%	1.9%	242	3.1%
Residential Building	33,615	\$50,893	0.71	2,747	2.9%	2.5%	929	0.9%
<b>Total Construction</b>	<b>80,831</b>	<b>\$67,152</b>	<b>0.79</b>	<b>8,122</b>	<b>3.6%</b>	<b>3.0%</b>	<b>2,559</b>	<b>1.0%</b>
<b>Total - All Industries</b>	<b>1,833,479</b>	<b>\$62,255</b>	<b>1</b>	<b>90,515</b>	<b>1.7%</b>	<b>1.4%</b>	<b>39,093</b>	<b>0.7%</b>

\*Est. Annual Supply Gap (or surplus) is for all employers hiring for this occupation, not only construction roles. Est. 3-year training need refers to new individuals that had not previously worked in the occupation that would need to be trained in to a role in the next three years; it does not refer to individuals that have worked job in the trade and are momentarily without a job. Unemployment rate by occupation is obtained from the American Community Survey 2016 Estimates, and includes people that did not have work at the time of the survey but were active members of a union or actively searching for work in that occupation; it does not include people who were not looking for work at the time of survey. Analysis does not include residential construction.

**Pathway Action Key**

- Critical Pathway Opportunity
- Moderate Pathway Opportunity
- Small Pathway Opportunity
- E Entry-Level/High School/GED
- AP Apprenticeships
- AA Associate Level Training
- BA Bachelor's Level Training
- + Master's/Professional Level Training

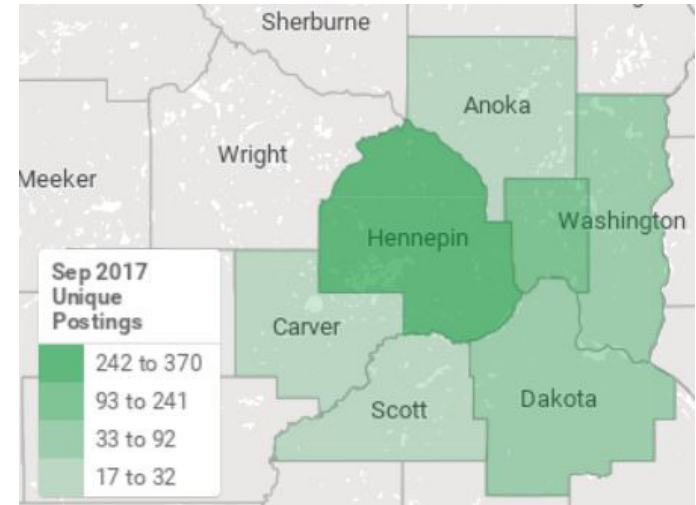


## Key Trades - Pipeline Complexity & Timeline

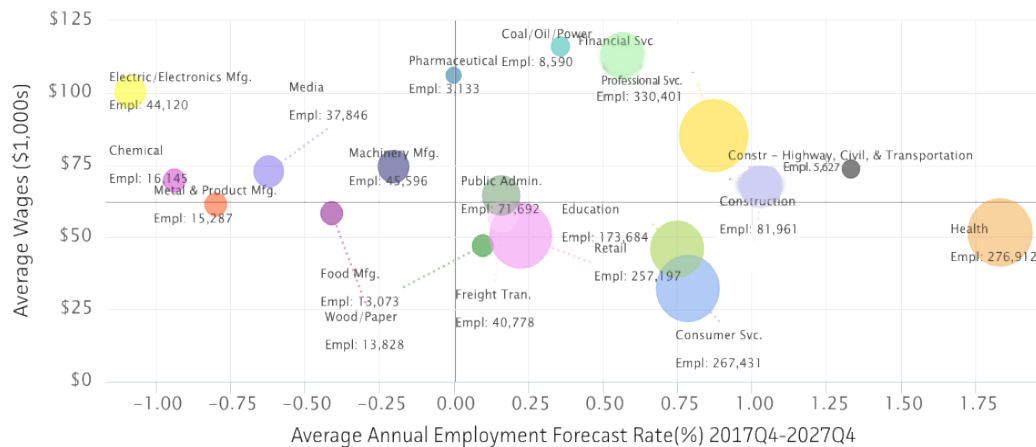
Trade	Complexity	Pipeline Time	% 55+ (2014)	Employment Q4 2017	Unempl. Rate	Mean Wage Q4 2017	Est. Shortage 2020
Pipefitters	High (L)	5-6 Yr	11%	4,767	2.5%	\$74,900	High
Operating Engineers	Mod. (S)	3-6 Yr	18%	3,993	4.7%	\$66,900	High
Carpenters	Low (U)	4-6 Yr	9%	9,963	3.0%	\$53,200	High
Electricians	High (L)	5-8 Yr	13%	6,325	2.4%	\$72,000	Moderate
Ironworkers	Low (S)	3-4 Yr	9%	9,121	3.2%	\$44,300	Moderate
Boilermakers	Low (S)	4-5 Yr	8%	157	7.8%	\$78,100	Moderate
Painters	Low (U)	3-4 Yr	10%	3,775	3.1%	\$48,300	Moderate
Concrete Finishers	Low (U)	1-2 Yr	8%	1,986	5.5%	\$54,200	Moderate
Construction Laborers	Low (U)	0-1 Yr	8%	8,967	4.9%	\$52,500	Low

U: Unlicensed Trades; L: Licensed Trades; S: Specialty Trades.

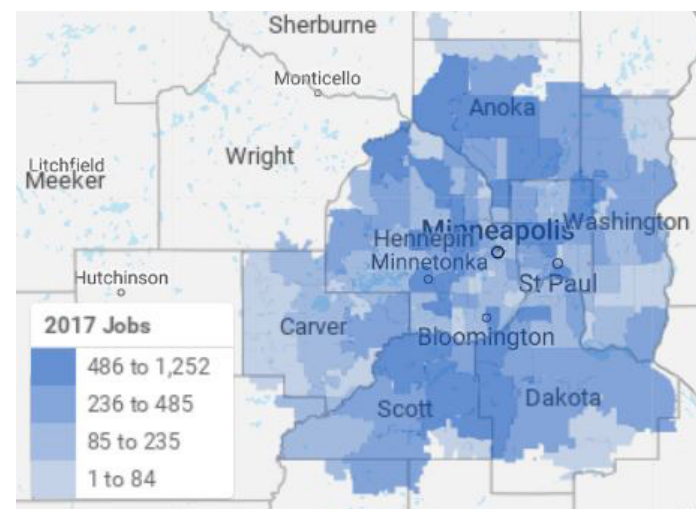
## Live Job Postings in Key Trades, 2017



## Baseline Forecasted Demand by Industry Cluster



## Employees Working in Key Trades, 2017



By place of employment.

## Industry Demographics

### MN

- Age\***
  - 19% over age 55 (23% all ind.)
- Union Members\*\***
  - 80,000
- Apprenticeships\*\*\***
  - 11,400 (90% in construction)

### Metro Area

- Employment in the 9 Key Trades**
  - 49,054 workers (Q4 2017)
- Annual Pathways to Prosperity Training Graduates**
  - 16 (<10 employed in construction)

For more information:

- Industry Contact: **John O'Phelan, Workforce Development Specialist, Ramsey County Workforce Solutions**
- MSPWin Career Map: <http://mbspwin.org/wp-content/uploads/2016/06/Career-Pathway-Maps.pdf>
- RealTime Talent Reports: [realtimetalent.org/research/reports](http://realtimetalent.org/research/reports)

\* CES Quarterly Workforce Indicators (QWI) Q4 2016. \*\*Elevate Minnesota, [www.elevateminnesota.org/about](http://www.elevateminnesota.org/about). \*\*\*Apprenticeship Minnesota, as of Feb 2018. Developed by Erin Olson ([erin@realtimetalentmn.org](mailto:erin@realtimetalentmn.org)). Published 5/22/2018 by RealTime Talent. Sources: Employment, wage, and education data modeled from IPEDS, OES, and BLS data by JobsEQ. Maps modeled using custom occupation clusters in EMSI.