

INSIGHTS FOR ACTION

How the MSP region is addressing the growing talent crisis
with analysis of real-time labor market data

September 2018



RealTime Talent
Using data to build the
world's best workforce

 **MSPWin**
MINNEAPOLIS SAINT PAUL REGIONAL WORKFORCE INNOVATION NETWORK

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INTRODUCTION

In the last few years, a range of online analytical tools has enabled a clear view of our dynamic and constantly changing labor market. For the first time, this data is available to job counselors and planners not just as information for reflection, but as a real-time action tool to direct jobseekers to the best opportunities. This report outlines our approach to taking the first step in addressing this crisis: documenting the labor shortage and skills gap, identifying the impact that our programs and initiatives could have on closing those gaps, and building a strategy for a more systematic and employer-led long-term solution.

We believe workforce development must now be based on a real-time feedback loop. Without a clear line of sight into the current labor market realities, it is impossible to advise job-seekers effectively, meet employer talent needs, or plan effective educational systems. We have learned that in a program-rich, systems-poor environment, context in real data and short-term outcomes can help move out of the spin-cycle of planning and into systems change.

However, a strong report alone will not lead to systematic change, better programs, or improved outcomes without engaging the necessary leaders to take the next step. Even after reviewing the wealth of LMI, job postings, and educational data at our disposal, it is still essential to get out in the field and talk to employers, training program managers, and postsecondary directors get their take on the accuracy and relevancy of the data and your conclusions from it.

Real Time Talent and MSPWin will continue to promote and expand demand-driven solutions that are grounded in the realities of talent supply limitations and opportunities. We hope that this implementation guide is an important step toward building the next generation of cross-sector, employer-led education and workforce collaboratives to address the workforce challenges of our time.

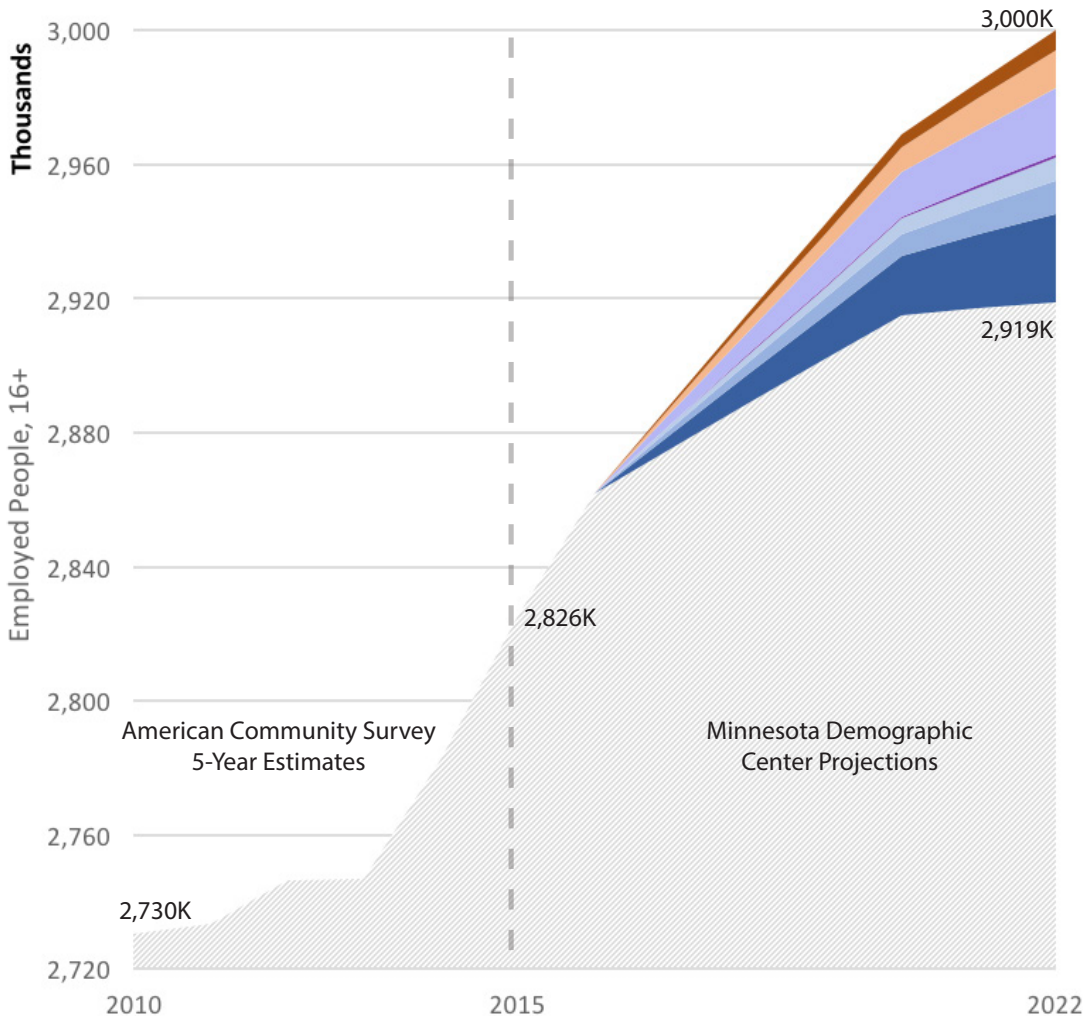
Building Minnesota's Workforce

Realistic approaches to address our need for more workers

Minnesota will soon face a significant labor shortage. In some industries, the shortage is already occurring. If unemployment rates hold constant, we can expect only an average 0.35% annual growth in employment between 2016 and 2022 due in large part to:

- > Increasing retirement rate of the baby boomer generation
- > Decreasing labor force participation of youth, particularly between the ages of 16-21

This graphic offers a simplified 6-year outlook at the impact of several challenging, yet important goals for the future employment of Minnesotans.



Created October 2016 and updated March 2017 by Erin Olson, Research Strategist, RealTime Talent.



Targets and Impacts

- Maintain International Migration** (IMPACT: +6,000 employed) Maintain current annual increase in international migration, rather than letting it slow.
- Increase Domestic Migration** (IMPACT: +11,000 employed) Increase net domestic migration to a net positive of 5,000 people per year.
- Eliminate Disparities in Employment** (IMPACT: +20,000 employed above and beyond impacts of the four initiatives below, leading to 57,500 total additional minorities employed) Labor force participation and employment rates of all racial and ethnic groups match (or exceed) that of native born whites.
- Extend Retirement** (IMPACT: +1,000 employed) Raise the Median Eligibility Age gradually by 1 year by 2035.
- Reduce Dislocated Workers** (IMPACT: +6,750 employed) Reduce the number of dislocated workers by half (at least 85% minority).
- Reduce Long-Term Unemployment** (IMPACT: +10,000 employed) Reduce the number of long-term unemployed by half (at least 85% minority).
- Maintain Youth Employment** (IMPACT: +26,250 employed) Maintain current rate of 16-24 year old labor force participation and employment (at least 85% minority).

Sources: US Census Bureau Population Estimates Program, 2015; IPUMS US Census Bureau American Community Survey 5-Year Estimates, 2015; MN Demographic Center Population Projections; Committee for a Responsible Federal Budget. Each target and impact listed above is contingent on the others. Where projections do not exist, the most recent ACS data on employment and demographics are used to develop scenarios. Advising on data sources provided by the Minnesota Population Center and Wilder Research.

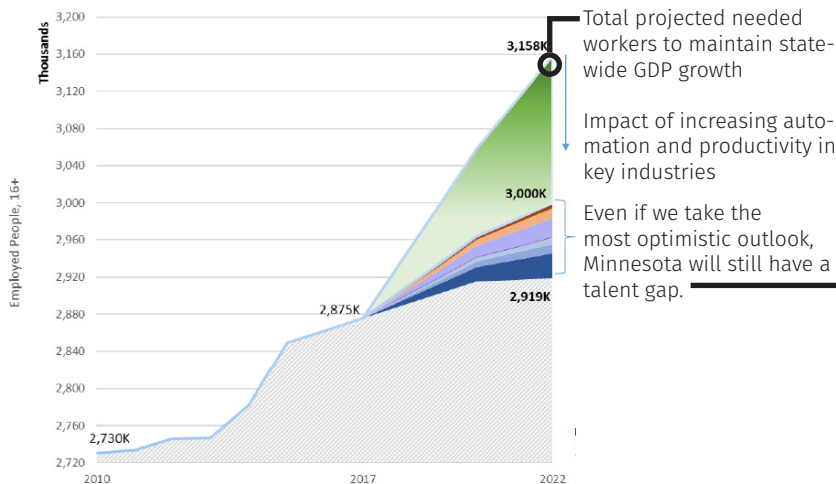
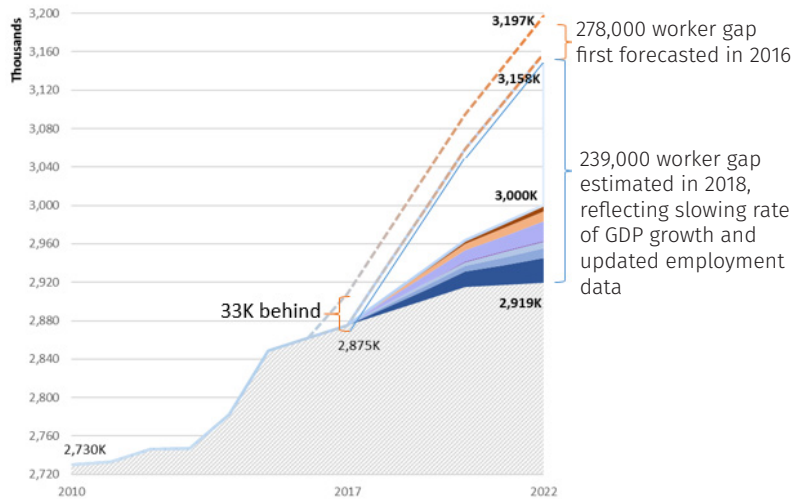
QUANTIFYING THE LABOR MARKET GAP STATEWIDE APPROACH

In order to develop a comprehensive strategy for addressing Minnesota's labor shortage, it was necessary to quantify the specific components of our state's talent pool and expected talent pipeline. First, we analyzed the current and projected macro-level labor market shortages based on official population projections and alternate forecasts of continued employer demand matching historic trends.

Then, we estimated a best-case scenario: If our state were not facing this severe shortage of workers, and economic growth could continue in line with historic rates of growth, we would actually need approximately 278,000 additional workers in our state by 2022 than our current talent pipeline can supply.

In order to keep pace with changes in the economy and positioning of the workforce, these estimates are updated internally every 6 months. As of the most recent estimates in February 2018, we found that the 2022 shortage had been reduced to about 239,000 workers due to a slowing rate of GDP growth statewide.

The most important step in this process is identifying the critical populations of talent, scope of existing workforce initiatives, and how these relate to the baseline assumptions of official labor market forecasts. In the *Building Minnesota's Workforce* report, first published in October 2016 and updated in March 2017, we emphasize the possible growth in our employed workforce by addressing employment, migration, and productivity challenges. Additional analysis in late 2017 and early 2018 highlighted where the largest talent shortages are expected to occur sector by sector.



KEY FINDINGS

Employment initiatives alone could add about 64,000 workers to Minnesota businesses. The additional shortage of 175,000 workers would need to be addressed through improved attraction and retention of talent (adding up to 17,000 workers by 2022, indicated in orange), along with encouraging opportunities for employers to innovate and automate for increased per capita productivity.

Building Minnesota's Workforce

Realistic approaches to address our need for more workers
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- > Decreasing labor force participation of youth, particularly between the ages of 16-21

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The critical impact areas for closing the statewide talent gap include 1) employment of adults, youth, and historically under-employed populations, 2) migration and talent retention, and 3) productivity and innovation. Key targets were identified in the first two of these categories that, together, would close approximately 1/3 of the state's total talent shortage.

METRO APPROACH

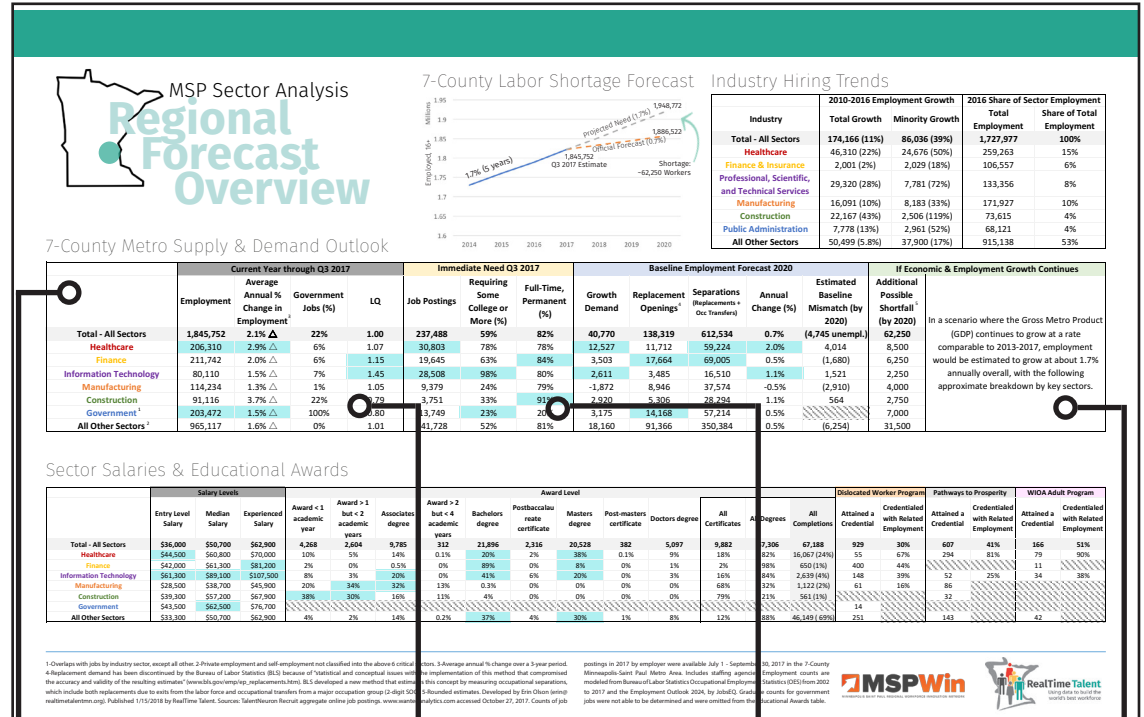
Having identified the critical intervention paths at the statewide level, we shifted focus to a regional sector-based model aligned with metro initiatives. The Governor's Workforce Development Board identified 6 sectors that are critical to Minnesota's economic future; our analysis highlights critical workforce shortages expected in each.

62,250 workers by 2020

A shorter timeline through 2020 was chosen to encourage rapid, sector-based responses.

Occupations	2020 Shortage Based on Official Forecasts (or surplus)	2020 Shortage Based on Continued GDP Growth
Healthcare	4,014	8,500
Finance	(1,680)	6,250
IT	1,521	2,250
Manufacturing	(2,910)	4,000
Construction	564	2,750
Government	-	7,000
All Other Sectors	(6,254)	31,500

The Regional Forecast Overview highlights the short-term 7-county labor shortage through the end of 2020, which was estimated in January of 2018 as approximately 62,250 workers. This is the additional number of people that the 7-county metro area (Hennepin, Ramsey, Washington, Carver, Dakota, Scott, and Anoka counties) would need to add into the workforce above and beyond the number of workers projected by the MN Demographic Center if the region hopes to keep pace with historic rates of GDP growth. This approach takes into account retirements, other separations, and job transfers. We expect some of the largest shortages in Healthcare, Information Technology, and Construction occupations, but it's likely that all sectors will feel significantly short-staffed given the dramatic labor shortage that we face (see the column above labeled "2020 Shortage Based on Continued GDP Growth.")



The regional reports use a slightly different approach from the statewide model, taking a more focused look at sector-specific employer demand rather than talent supply demographics.

The Quarterly Census of Employment and Wages data for occupations clustered by sector give a picture of the current state of employment.

Online job posting data shows the immediate needs that employers have and the skill, certification, and educational requirements needed.

Industry	2015-2016 Educational Awards								2010-2016 Employment Growth		2016 Share of Industry Employment	
	Total Awards	% Distance Programs	Share of Awards Attained by Minorities					Total Growth	Minority Growth	Total Employment	Share of Total Employment	
			Cert	AA/AS	BA/BS	MA+	Total					
Total - All Industries	68,188	48%	36%	30%	22%	32%	29%	174,166 (11%)	86,036 (39%)	1,727,977	100%	
Healthcare	16,067	51%	43%	26%	27%	34%	33%	46,310 (22%)	24,676 (50%)	259,263	15%	
Finance & Insurance	729	15%	67%	32%	15%	29%	18%	2,001 (2%)	2,029 (18%)	106,557	6%	
IT (Professional, Scientific, & Technical Services)	2,639	53%	30%	31%	27%	43%	32%	29,320 (28%)	7,781 (72%)	133,356	8%	
Manufacturing & Engineering	1,766	0%	29%	22%	14%	20%	26%	16,091 (10%)	8,183 (33%)	171,927	10%	
Construction	561	0%	33%	18%	17%	-	30%	22,167 (14%)	2,506 (119%)	73,615	4%	
Public Administration & Social Service	2,151	52%	71%	64%	44%	42%	44%	7,778 (13%)	2,961 (52%)	68,121	4%	
All Other Industries	44,275							50,499 (6%)	37,900 (17%)	915,138	53%	

An alternate forecast of the additional need above and beyond baseline forecasts from the BLS' Employment Outlook help to estimate how employers perceive the worker shortage.

Sorting new employment and educational data by sector, then analyzing it again by race/ethnicity (left) helps to highlight the bottlenecks to fostering a more steady and diverse talent pipeline.

*Educational data by race is only for those students who provided this information to their institution; excludes international and foreign exchange students.

Source: IPEDS, BLS

THE SECTOR MODEL

APPROACH | First, we analyzed the current and projected macro-level labor market shortages based on official population projections and alternate forecasts of continued employer demand matching historic trends. Then, we estimated a best-case scenario.

Minnesota's Forecasted Employment & Shortage

	Historical Data		Baseline Employment Forecast 2022			Online Job Market		If Economic Growth Continues			
	2012 Employment	2017 Employment	2022 Employment Forecast	2022 Estimated Sector % Growth	2022 Estimated 5-Year Retraining Need (Separation + Growth Demand)	2022 Labor Mismatch Gap (or surplus)**	Q3 2017 Sector Job Postings	% Increase from Prior Year (or decline)	2022 Employment Based on Continued GDP Growth	2022 Estimated Sector % Growth based on Continued GDP Growth	2022 Additional Employment Growth based on Continued GDP Growth
Total Employment - Baseline QCEW*	2,845,088	3,075,610	3,158,313	0.5%	1,780,647	-	391,468	-8%	3,326,902	1.6%	168,589
Information Technology	95,733	103,505	109,155	1.1%	41,310	15,325	33,577	-15%	113,919	1.9%	4,764
Healthcare	329,434	366,965	398,591	1.7%	201,967	11,775	65,816	-12%	430,159	3.2%	31,568
Construction	144,817	167,020	174,751	0.9%	94,008	2,370	6,533	5%	180,572	1.6%	5,821
Manufacturing	326,258	347,280	342,033	-0.3%	182,579	(8,900)	16,778	17%	358,209	0.6%	16,176
Finance	298,847	320,398	326,762	0.4%	187,482	(4,695)	26,471	-13%	340,768	1.2%	14,006
All Other	1,649,999	1,770,442	1,807,021	0.4%	1,147,467	(33,760)	242,293	-5%	1,903,275	1.4%	96,254
Government (EMPLOYER-BASED, cross-sector pathways)	108,902	113,802	113,755	Federal -0.3%, State 0.4%, Local 0.1%	52,587	-	10,638	53%	138,941	Federal 1.5%, State 1%, Local 1.3%	25,186
Agriculture, Food, and Natural Resources (INDUSTRY-BASED, cross- sector pathways)	313,448	338,079	335,805	-0.1%	189,527	-	16,534	42%	351,325	0.8%	15,520

*Some double-counting of employment is inherent in the QCEW demand data. **Overall labor shortage dependent on population cannot be estimated overall for all employment, since a degree of job shifting will occur in the labor supply; ultimately, the shortage in this scenario is a mismatch in workers on the job.

Sectors were identified as groups of occupations that have similar skills, content, and industry alignment. This allowed for more appropriate mapping of career pathways within and between sectors and facilitated scaling of the analysis to statewide, regional, and local geographies. Labor mismatch, or gaps, were determined through an analysis of key talent supply indicators against the dominant demand indicators (see below).

Key Indicators of DEMAND

- Job posting data (TalentNeuron Recruit)
- Monthly survey of job vacancies overall (JVS, DEED)
- Official 10-year forecasts of job growth by occupation (EO, DEED)
- Modified employment forecasts based on alternate scenarios (JobsEQ)
- Employer insights by sector surveys, focus groups, and association feedback

Key Indicators of SUPPLY

- Online candidate profiles (EMSI)
- Educational outcome data (IPEDS)
- Educational employment outcome data (SLEDS)
- Educational program insights from educators, administrators, and training partners through surveys or focus groups
- Student career interest surveys

STRATEGIES

The first sector reports for quarters 2 and 3 of 2017 highlight the overall talent supply pipeline and short-term forecasts of demand, indicating the initial signs of shortfall of talent. Framing efforts through the lens of employer demand and talent supply help to focus talent pipeline planning and development efforts on the most pressing immediate needs and streamline responses through institutions with the necessary level of influence.

DEMAND

MSP Sector Analysis
Information Technology
Living Wage Middle Skill Jobs

Q2 2017

Continuing Growth, Expanding Opportunities
Information Technology continues to be a growing and high-wage sector of great importance to the finance, healthcare, and high tech industries. About 80,296 people are currently employed in Information Technology roles, with 7% of these found in state or local government. Employers continue to seek candidates with credentials; 98% of online job postings advertised during the second quarter of 2017 required a certificate or some college education. Employment is expected to grow by 11% annually through 2020.

Top Occupations in Demand in the 7-County Metro

IT Occupations	Jobs Available Q2 2017	Change from Prior Year	Share Requiring an AA or Less
Software Developers, Applications	7,312	+21%	2%
Computer Systems Analysts	6,368	+5%	2%
Computer User Support Specialists	4,718	+9%	61%
IT Project Managers	4,448	-2%	2%
Web Developers	4,092	+14%	55%
Network & Computer Systems Admins	3,305	-3%	8%
Software QA Engineers/Testers	2,498	+8%	4%
Computer Systems Engineers & Architects	2,489	+11%	2%
Computer & Info Systems Managers	1,814	+7%	1%
Computer Programmers	1,701	-5%	3%
Information Security Analysts	1,449	-18%	3%
Database Administrators	952	-13%	2%
Software Developers, Systems Software	594	+10%	3%
Computer Network Architects	309	-17%	7%
Search Marketing Strategists	90	+91%	12%
Computer Operators	69	-32%	93%
Computer Network Support Specialists	34	-29%	71%
GIS Technicians	33	-25%	8%
Web Administrators	17	+325%	25%
Document Management Specialists	16	+433%	25%
Database Architects	9	-25%	0%
Telecommunications Engineering Specialists	5	+400%	0%
Data Warehousing Specialists	5	+150%	0%
Geospatial Information Scientists & Technologists	1	-83%	0%
Total	42,328	+6%	14%

Jobs Requiring an Associate Degree or Less
More detail found on the next page.

Computer User Support Specialists
4,718 job ads (+9%) \$17.44 avg. entry-level wage
2017 Employment: 9,623 2020 Employment: 9,926
Typical Entry-Level Position: Some College or Certificate

Web Developers
4,092 job ads (+14%) \$20.04 avg. entry-level wage
2017 Employment: 2,728 2020 Employment: 2,914
55% Job Ads AA or Less 32% Existing Employees AA or Less

Computer Network Support Specialists
34 job ads (-29%) \$20.90 avg. entry-level wage
2017 Employment: 2,719 2020 Employment: 2,761
71% Job Ads AA or Less 57% Existing Employees AA or Less

Top Employers Recruiting Candidates with an Associate Degree or Less

We started with a high-level scan of all occupations related to each sector, analyzing data from public Labor Market Information (LMI), aggregated online job postings, and any comprehensive local surveys focused on the 7-county Metro area. From this, we prepared a list of the top 25 occupations in demand based on the volume of job postings advertised in the most recent quarter. These occupations are considered to be some of the most immediate needs of local employers and some of the most impactful first interventions.

Next, we highlighted the top three occupations that pay over \$15.50 an hour on average and, according to job postings, typically require an Associate's Degree or less.

Using the top three living-wage, entry-level occupations, we summarized:

- The short and long-term employment outlook (JobsEQ)
- Connecting career pathways
- Median wage offered (OES and TNR)
- Number of related degree completions locally (IPEDS)

Finally, using online job posting data, we highlighted the top employers actively recruiting entry-level candidates (TNR). This helps demand-side interventions to identify and connect with the employers that will be most impacted by this shortage and mobilize them to evaluate their hiring practices, successfully identify new talent pools, or become a part of sector talent pipeline strategy planning.

SUPPLY

Top Living Wage Occupations in Demand with an Associate Degree or Less

Computer User Support Specialists
4,718 job ads (+9%) \$17.44 avg. entry-level wage
Typical Entry-Level Position: Some College or Certificate

	2017	2020
Employment	9,623	9,926
Annual Growth Rate	1.7%	1%
Total 3-Year Demand	463	671
Unemployment/Worker Surplus	27% (3%)	0

Regional Certificate & 2-Year Programs
Computer Support Specialist, Computer Programming - Specific Applications, Medical Office Computer Specialist

School	2016 Completions	People of Color
Hennepin TC	30	33%
Minneapolis CTC	15	29%
Normandale CC	11	64%
National American U	9	20%
American Indian OIC	8	60%
North Hennepin CC	8	25%
Anoka-Ramsey CC	4	25%
Inver Hills CC	4	25%
Dakota County TC	3	0%
Mid School of Business	2	0%
Century College	1	100%
Saint Paul College	1	0%
All Related Programs	93	38%
Graduate Shortfall*	66	
Training Concentration	0.82	Mod Low

Web Developers
4,092 job ads (+14%) \$20.04 avg. entry-level wage
Typical Entry-Level Position: Associate Degree

	2017	2020
Employment	2,728	2,914
Annual Growth Rate	1.6%	2.2%
Total 3-Year Demand	128	320
Unemployment/Shortfall	75 (2.8%)	96

Regional Certificate & 2-Year Programs
Computer Science, General Computer Programming, Web Page/Digital/Multimedia Information Resources Design

School	2016 Completions	People of Color
North Hennepin CC	86	38%
Minneapolis CTC	66	27%
Concordia University	38	18%
Normandale CC	29	35%
Saint Paul College	22	45%
Dunwoody College of Tech	21	19%
Anoka-Ramsey CC	17	24%
Century College	14	14%
Dakota County TC	13	25%
Inver Hills CC	3	33%
The Art Institutes Intl.	2	50%
Hennepin TC	1	100%
All Related Programs	318	30%
Graduate Shortfall*	29	
Training Concentration	0.84	Mod Low

Using the three high-demand, living-wage, entry-level occupations as the starting point for analysis, we summarized the current state and future outlook of employment, unemployment, and the talent pipeline. Taking into account the baseline expected employment given the labor shortage (EO), the modified forecast of employment based on GDP growth (estimated with JobsEQ), job vacancies and postings (JVS and TNR), and the trajectory of educational completions (IPEDS), we were able to estimate the additional number of local certificate or associate-level graduates that would be needed annually to meet the needs of local businesses. This number is used in engaging colleges and universities around program enrollment.

A critical component of assessing the talent pipeline is analyzing the education and training process. The second page of this report highlights graduate outcomes for each occupation, including related programs, schools, number of local graduates, and breakdown by race and ethnicity (IPEDS). This is valuable information for designing interventions that are particular to each specific school, whether they face enrollment challenges, difficulty attracting or retaining students of color, or other barriers.

The table at the base of the report is unique to each sector, outlining number of graduates from training, certificate, apprenticeship, or dual training programs for a similar purpose.

HEALTHCARE: Needs by Employer Type

APPROACH The Healthcare sector has the most positive workforce system results in terms of employer engagement and job-seeker outcomes, but not all types of employers have benefitted equally. This report highlighted the pathways in an emergency state and estimated forecasted need by employer type.



High-level introduction to critical sector needs.

The highest demand occupations among all employer types, with the expected talent shortfall highlighted for each; Occupations are connected to each other along pathways that link based on related knowledge, skills, and abilities as seen in job posting and O*Net datasets; These pathways should be considered for refining educational programs or revisiting employer talent development approaches.

Identification of critical occupations in demand with job titles, salaries, and education requirements by employer type: Hospitals, Clinics, Long-Term Care Facilities, and Home Care; includes top recruiting employers and top hard skills in demand, based on online job posting data.

Registered Nurse (RN) degrees awarded by school in the 7-County Metro Area in 2016, including a breakdown by race and ethnicity.

KEY FINDINGS

- Critical health occupations are expecting large labor force shortages in just three years; in the metro, we will likely fall short at least 1,250 Registered Nurses needed to fill openings by 2020—particularly in specialty areas.
- Realities that hospitals, clinics, long-term care, and home care organizations face are unique, but are in many of the same types of occupations; custom-tailored solutions are needed for sub-sectors and engage employers in the sub-sector groups that resonate with their particular needs.
- Educational pathways to a Bachelor's of Science in Nursing (BSN) are not stacked and may be a barrier to diverse candidates with training as a Nursing Assistant, Medical Assistant, or Home Health Aide but who wish to advance their careers.

Analysis of demand coming from staffing agencies, including top titles, overall posting volume, comparison of salaries advertised, and top companies recruiting based on online job posting data.

Registered Nurse (RN) specialties in high demand by employer type.

PARTNERS | Lead: Julie Brekke, HIRED

- Core Metro Sector Skills Academy Leadership Team: HIRED, International Institute of MN, Comunidades Latinas Unidas en Servicio (CLUES), DEED Regional Business Consultant, NorthPoint Health and Wellness Center, HealthForce, Washington County Community Development Agency
- Other Key Partners Engaged: City of Minneapolis, Central Corridor Anchor Partnership (Minneapolis College, Metropolitan State, Saint Paul College, Bethel University, St. Catherine University, Augsburg University, University of St. Thomas, Smith Partners, Regions Hospital, Fairview/HealthEast, Hennepin Healthcare, Allina Health), PPL, CareProviders of MN, Leading Age

ACTIONS & RECOMMENDATIONS

- Build on and expand the Central Corridor Anchor Partnership employer-led workforce planning approach.
- Build clear career pathways into high-demand, high-wage, high-shortage occupations as identified through analysis of data: Registered Nurses (with focus on hospital specialty needs and long-term care); Licensed Practical Nurses; Medical Assistants; Medical Secretaries; Medical/Clinical Lab Technicians; Personal Care Aides; Home Health Aides; Surgical Technicians; Pharmacy Technicians; Radiologic Technicians; Emergency Medical Technicians.
- Promote, increase enrollment, and align training and education programs that have strong positive outcomes, including successful job shadowing and internship models.

MANUFACTURING: Targeted Interventions by Pathway

APPROACH There is an urgent need to repair the career paths through entry-level positions into advanced careers in Manufacturing. Employers face shortages across their workforce and must upskill their talent and automate to stay competitive.

Q4 2017

MSP Sector Analysis Manufacturing
Focus on Skill Levels

Develop Stronger career recent growth & talent from 4- in Q2 and Q3 of by 2020 (around 400,000) dropped into high-

Top Occupations in Demand in the 7-County Metro

Entry
Good entry points with short-medium training, do not require mechanical aptitude or experience

Top Occupations by Training Need in the Manufacturing Industry*

- Team Assemblers
- Helpers-Production Workers
- Labors & Freight, Stock, & Materials Movers
- Packaging and Filing Machine Operators & Tenders
- Packers & Packers, Hand

Summary
Total Employment Q4 2017: 62,793
Training Need by 2020: 27,206

Educational Awards by School - in 2016

Schools	Certificate	AA	BA	Post-graduate	Grand Total	Share of Graduates
Anoka Technical College	56	65	12	1	121	4%
Anoka-Ramsey Community College	9	5	14	0	28	0.5%
Augsburg College	12	12	12	0	36	0.4%
Bethel University	9	9	9	0	27	0.3%
Century College	44	45	9	0	98	3%
Concordia University-Saint Paul	1	8	9	0	18	0.3%
Dakota County Technical College	149	39	188	6%	376	6%
Dunwoody College of Technology	51	109	19	0	179	3%
Global University-Woodbury**	14	4	18	0	36	0.4%
Hamline University	13	13	13	0	39	0.4%
Hennepin Technical College	275	150	425	14%	850	14%
Inver Hills Community College	2	2	2	0	6	0.3%
Macdonald College	20	20	20	0	60	1%
Metropolitan State University	12	12	12	0	36	0.4%
Minnesota Community & Technical College	39	28	67	2%	134	2%
National American University	2	2	2	0	6	0.3%
Normandale Community College	10	11	21	0	42	1%
Saint Paul College	105	23	128	4%	256	4%
St Catherine University	9	9	9	0	27	0.3%

Educational Awards by Program

Program	Certificate & AA	BA	Post-graduate	Total
Food Science	40	39	18	97
Engineering	0	758	383	1141
Technology	541	4	19	564
Apparel & Textile Manufacturing	23	0	0	23
General Chemistry	12	249	78	339
Nuclear/Chemical Technology	5	0	0	5
Lineworker	60	0	0	60
Maintenance Technology	39	0	0	39
CNC Machining/Tooling Technology	443	3	0	446
Orthosis/Prosthetist	44	0	0	44
Chain Management/Supervision	26	121	0	147

Q1 2018

MSP Sector Analysis Manufacturing
Surplus and Gap Overview

Multiple career in the industry has grown more since 2016, count less than one per 63,800 manufacturing

Top Occupations in Demand in the 7-County Metro

Manufacturing Associate, Medical Assembler, CNC Machinist, Mill Machinist, Milling & Grinding Machine, Production Worker, Laborer, Production Associate, Production Supervisor, Production Manager, Operations Supervisor, Kitting Lead, Electrical Assembler, General Assembly-Soldering, Machine Tooling - Electrical, Material Handler, Package Handler, Order Picker/Packer, Chemical Receiving Operator, Dimensional Technician, Assembly Machine Operator, Packaging Line Worker, Assembler, Welder, Production TIG Welder, Spot Welder, Robotics Mill Welder, Digital Print Operator, Machine Operator, Quality Engineer, Supplier Performance Engineer, Manufacturing/Process Engineer

Total (Includes 139 occupations)

Target Occupations to Cultivate Talent Supply

Attract & Upskill
Develop & Educate
Retain

Key NIMS Credentials Issued, by Year

National Institute for Manufacturing Skills (NIMS) - 1225 credentials to date	2015	2016	2017	Total
CNC Drive Press Brake Skills II	1	1	2	4
CNC Lathe Operator	95	31	18	144
CNC Milling Operator	94	54	29	177
CNC Milling Skills II	1	1	1	3
CNC Milling Programming Setup & Opn.	28	21	10	59
CNC Turning Skills II	9	25	6	40
CNC Turning Programming Setup & Opn.	1	1	1	3
EDM - Conventional/Flung	1	1	1	3
Grinding II	5	9	2	16
Job Planning, Schematics & Layout	45	59	95	199
ITM: Basic Mechanical Systems	1	1	1	3
ITM: Hydraulic Systems	2	2	2	6
ITM: Mechanical Operations	94	54	29	177
Machine Maintenance II	5	4	9	18
Measurement, material & Safety	163	215	197	575
Manufacturing I	9	4	4	25
Milling I	17	16	3	36
Milling II	2	2	2	6
Stamping I: Operate of Single RH Tooling	1	2	2	5
Stamping I: Operate of Compound Dies	2	1	3	6
Stamping II: Operate of Progressive Dies	2	1	3	6
Stamping II: Parts Inspection & QC	2	1	2	5
Stamping II: Setup & Single RH Tooling	1	2	2	5
Turning Ops: Turning Between Centers	34	9	1	44
Turning Ops: Turning Cheeking Skills	7	13	1	21
Turning II: Cheeking	2	2	2	6
Turning II: Turning Between Centers	2	2	2	6
All NIMS Credentials	481	427	334	1,242

The Q4 2017 approach to sector analysis, looking at Quarter 1 data from 2017, classified all manufacturing occupations into four different occupation types: Entry, Accessible, Skilled, or Advanced. Further, each occupation was classified as general, technical, process, or engineering focused. These classifications help us to further understand the talent pipeline needs of area employers in a language that resonates with them.

The second page of the report highlights the region's graduate output from the certificate to postgraduate levels for all manufacturing-related programs. Focusing on graduate output and diversity by school rather than specific program at this stage of the planning process facilitates organizing the sector strategy through champions with the largest graduate outputs or capacity.

Given the importance of training and upskilling the existing workforce, we included a summary of the critical high education-level occupations that will need significantly more adults to be trained than historically have entered into the pipeline. Key occupations include Engineering Technicians, Welders, Electrical Engineers, and Machinists.

In the Q1 2018 publication, we focused on the critical target occupations and relevant attraction, development, and retention strategies for each.

Given the importance of credentials for CNC lathe, milling, machining, and metalforming positions, we highlighted the local NIMS credentials issued and training program graduates over the past 3 years.

KEY FINDINGS

- High training need across most occupations due to retirements and job transitions.
- Troubling workforce shortages are expected for Industrial/Mechanical/Electrical Engineers, Supervisors of Mechanics/Repairers, and Industrial Machinery Mechanics that need to be addressed through advanced educational pathways.
- Shortages are also expected in entry-level and technical occupations that could be built into dual training models, including welders, sheet metal workers, machinists, electrical engineering technicians, and industrial engineering technicians.

PARTNERS | Lead: Michael Slezak, City of Minneapolis

- Core Metro Sector Skills Academy Leadership Team: City of Minneapolis, Pillsbury United Communities, Vadnais Heights Economic Development Corporation, Anoka Technical College, Hennepin Technical College, Anoka County Workforce Center
- Other Key Partners Engaged: HIRED, Emerge, Avivo, Hennepin County, DEED Business Development, DLI PIPELINE Program, Dakota County Technical College, GreaterMSP WIB, Minnesota Precision Manufacturing Association, National Association of Manufacturers, MN Chamber Manufacturer's Alliance, Medical Alley Association, Anoka Chamber of Commerce, North Hennepin Chamber of Commerce Manufacturing Consortium, Saint Paul Area Chamber of Commerce

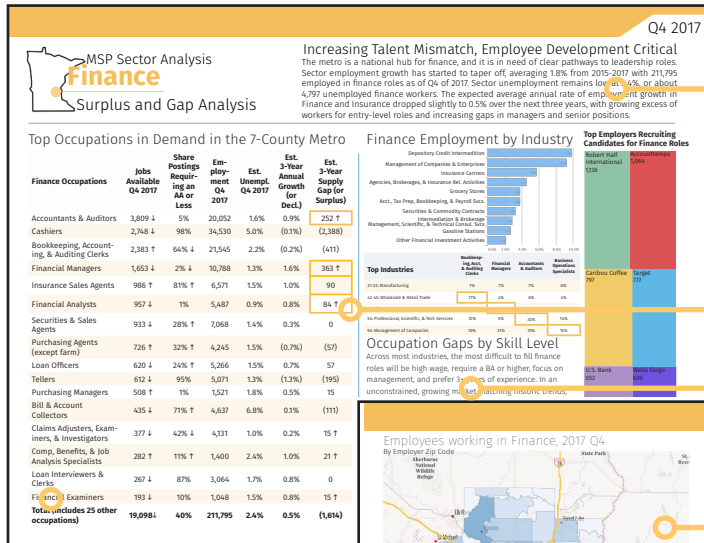
ACTIONS & RECOMMENDATIONS

- Attract and Upskill:** Develop clear pathways for high school graduates to enter into an "earn and learn" model (about 900 high school graduates statewide enter the Manufacturing industry annually); expand dual training models, such as the PIPELINE Program (provided career advancement training to 162 metro manufacturing employers in 2016 and 2017); improve graduate job placement of DEED P2P, Dislocated Worker, and MFIP participants.
- Develop and Educate:** Create a one-year certificate program in machining including job training and internship rotations; link PIPELINE Program to educational opportunities that advance careers into management, mechanics, or engineering; develop an effective academic pathway from AA/AS to BA/BSin engineering.

PAGE 8

FINANCE: Pathway Identification

APPROACH | The Finance sector is one of the least developed in terms of workforce system programming infrastructure and employer engagement. With the metro being a critical hub for Minnesota's finance industry and automation hitting key entrypoints into the industry hard, it is vital to plan systematically to fill mid-level and senior finance roles.

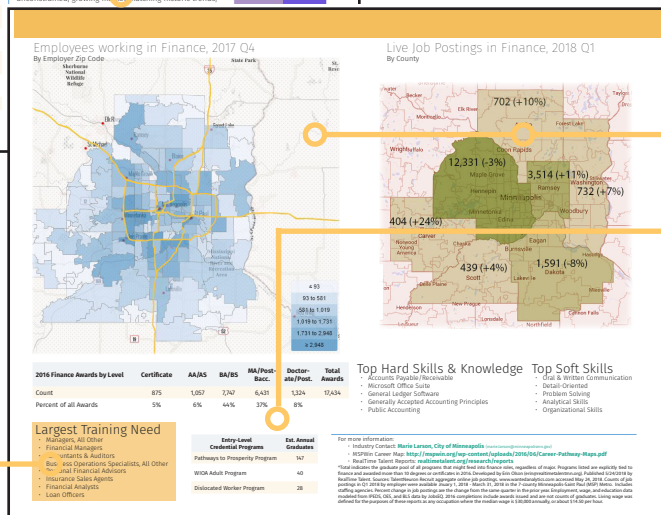


The report begins with a high-level introduction to critical sector needs, emphasizing increasing talent mismatch, need for coordinated diversity strategies, and a focus on improved internal employee development and advancement programs.

The Q4 2017 report repeated the approach of the Q3 initial scan of the sector, emphasizing the top occupations in demand in the region and highlighting those positions that expect to have the greatest 3-year supply gap. Key regional statistics to highlight include job posting volume, minimum education level advertised, employment and unemployment rates, and the estimated annual growth rate.

Given the importance of finance positions across a variety of industries, the second side of the demand report emphasizes the sub-sectors that rely most heavily on financial workers, with a key focus on the top four occupations that will experience the greatest shortages. In addition to the finance and insurance industry, other industries that would be impacted by shortage include professional, scientific, and technical services, manufacturing, wholesale and retail trade, and management companies.

Including lists of employers advertising the highest volumes of positions, top job titles, posted soft skills, and hard skills in demand ground the data in real-life context.



Mapping both current employment and live job postings in finance help to focus employer mobilization efforts by geography. Hennepin County is core to any finance strategy.

The Q4 2017 report closes with a summary of all degrees related to finance or insurance in the region and the estimated annual graduates of entry-level credential programs. Accurate counts of talent pipeline output support clearer enrollment campaigns and internship program strategies.

KEY FINDINGS

- Mid-level Financial Managers, Accountants, Auditors, Insurance Sales Agents, and Financial Analysts are expecting some of the largest shortages over the next three years.
- Educational interventions to increase diversity of finance BA graduates are priority.
- Finance positions are important across multiple industries, but this fact needs to be communicated more effectively.
- Financial institutions are not highly engaged and have limited capacity to organize.

PARTNERS | Lead: Mike Christenson, Hennepin County

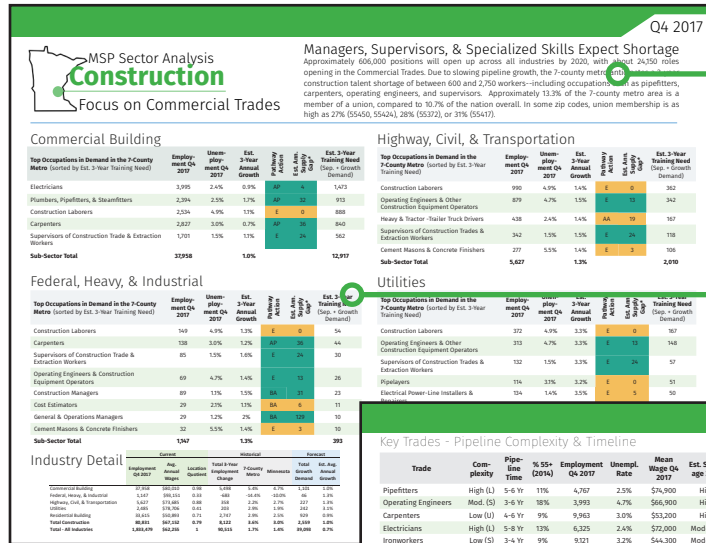
- Core Metro Sector Skills Academy Leadership Team: Hennepin County, Ramsey County, Goodwill-Easter Seals Minnesota, Hmong American Partnership, Minneapolis Urban League, Center for Economic Inclusion
- Other Key Partners Engaged: GreaterMSP, Project for Pride in Living, DEED Business Development, City of St. Paul, Minneapolis College (C3 Fellows), University of St. Thomas, Hennepin Workforce Leadership Council

ACTIONS & RECOMMENDATIONS

- Identify key pathways to develop and corresponding training and internship programs that exist, build out their enrollment (with focus on diversity).
- Grow and promote college internships in Finance (opportunity to improve and expand the C3 Fellows program regionally).
 - Leverage the C3 Fellows program at Minneapolis College as an opportunity to diversify the talent pipeline.
 - Recruit non-profit partners to help expand college internships.
- Recruit sector leadership and core team members across the region.

CONSTRUCTION: Sub-Sectors in Commercial Trades

APPROACH The industry is made up of over 30 different occupational trades that specialize in specific tasks. Each apprenticeship program varies in skill and time requirement and are typically 3-5 years (measured in hours, not days) in length.

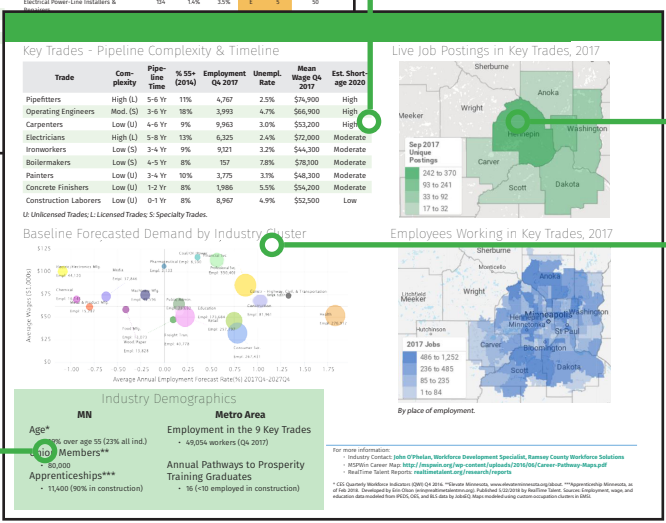


The report begins with a high-level introduction to critical sector needs, highlighting the total volume of job openings expected in the sector over the coming 3 year period and describing some of the key need for specialized skills.

The Q4 2017 report focuses on the unique needs of four key sub-sectors of the commercial trades, including commercial building, highway/civil/transportation, federal/heavy/industrial, and utilities construction. The first page analysis focuses in on the critical occupations in demand for each of these sub-sectors, highlighting existing employment and unemployment, expected growth, and the estimated training need and 3-year supply gap.

Nine of the key trades expect talent shortages over the next 3 years and beyond. The table on the second page of the Q4 2017 report highlights the needs of these trades from a talent perspective, indicating the average length of time it takes to complete the necessary training and education, the level of complexity of training, how close the existing workforce is to retirement, the unemployment rate by occupation, and mean wage within the region.

Including summary statistics on the existing labor force helps to ground the supply-side data in real-life context. Data points to consider include age of workers employed in the sector, number of union members, active apprentices, and number of local training graduate.



Mapping both current employment and live job postings in finance help to focus employer mobilization efforts by geography. Construction opportunities are relatively spread out across the region, but with a key concentration of employment in Hennepin County and new opportunities rising in Scott County and western Dakota County.

A cluster chart helps to visualize the current employment volume and forecasted demand for new workers expected for key sectors. In construction, forecasted growth outpaces all other critical sectors in the region except for healthcare.

KEY FINDINGS

- Depending on the economy, season and current projects the industry is constantly fluctuating and estimating workforce needs, resulting in a surplus or shortage in certain trades at a given moment. Given this tendency to rapid market changes, the industry requires a more systematic response to handling these fluxuations.
- There is a need to more systematically monitor talent pipeline development for these key trades through the impending workforce shortage.
- Diversity of the industry by race, ethnicity, and gender is improving, but still requires additional targeted efforts that track to shared outcomes.

PARTNERS | Lead: John O'Phelan, Ramsey County

- Core Metro Sector Skills Academy Leadership Team: Ramsey County, Mechanical Contractors Association, National Electrical Association, Minneapolis Building Trades Association, Tribal Partnership Program of the Cement Masons Apprenticeship Training Center, MN Pipe Trades Association, North Hennepin Community College
- Other Key Partners Engaged: Building Minnesota Apprenticeship, MCIWA, City Academy, CLUES, Conservation Corps, Avivo, Goodwill Easter Seals, Project for Pride in Living, Takoda Institute, Trading Up!, Tree Trust, HHH Job Corps, Hmong American Partnership, Le Gen Leaders, Merrick, Minneapolis Urban League, MN Trades Academy

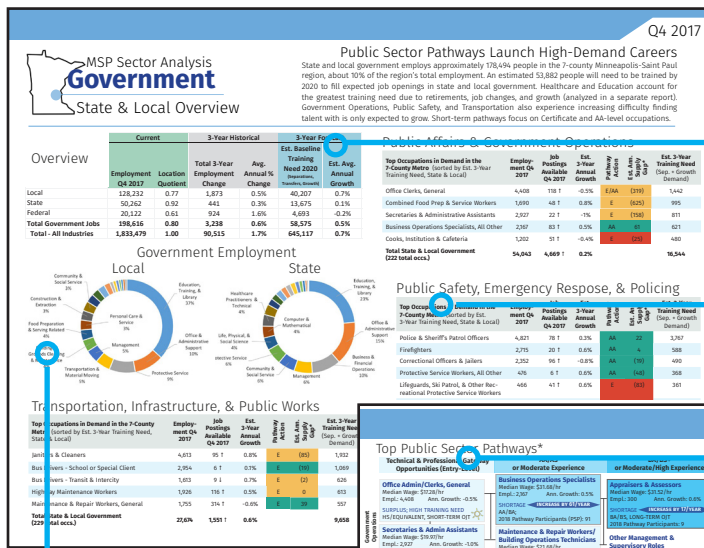
ACTIONS & RECOMMENDATIONS

- Focus workforce planning strategies on sub-sectors in Commercial Trades.
- Amplify existing apprenticeship programs and more systematically track employer need to influence apprentice enrollment targets.
- Continue to market awareness of construction careers with youth through programs like Construct Tomorrow and Construction Careers Pathways (CCP).

GOVERNMENT: Targeted Career Pathways

APPROACH

With state and local government employment approximately 178,494 in the 7-county Minneapolis-Saint Paul region (10% of the entire employed workforce), government serves as the largest local employer. Healthcare and education occupations account for the government jobs with the greatest expected shortages and warrant their own targeted initiatives with the private sector.



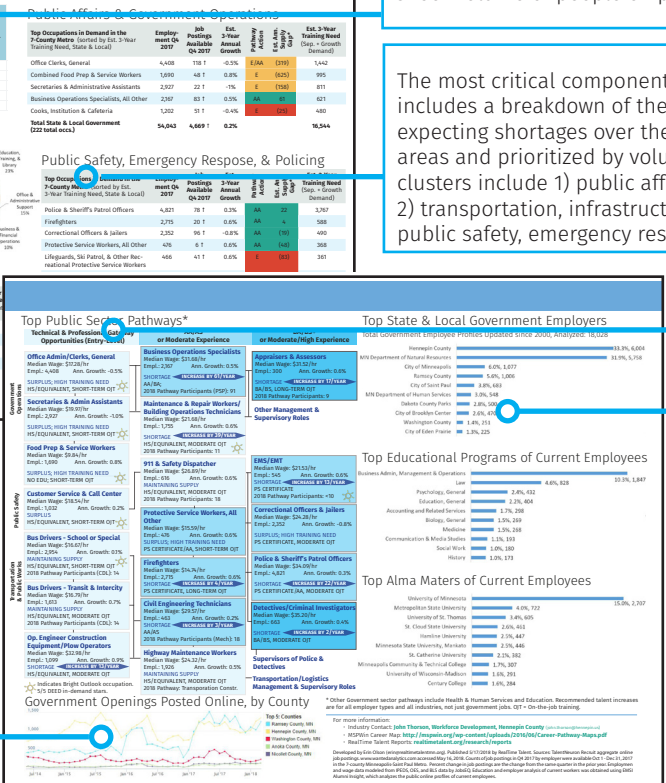
The high-level overview provides a snapshot of the sheer volume of people employed in government jobs.

A deeper analysis of the talent supply feeding into these top career clusters revealed 10 technical and professional gateway opportunities requiring limited training and education, 7 AA/AS or moderate experience opportunities, and 4 core BA/BS or high experience occupations with high demand and expected shortages. This career lattice shows the median hourly wage, anticipated additional talent needed to be trained, and the typical education or training requirements from employers. Existing participant enrollment numbers were also included for 2018 Hennepin County Pathways participants.

The most critical component of the demand-side analysis includes a breakdown of the top occupations in demand expecting shortages over the next 3 years, focused into action areas and prioritized by volume of labor shortage. The career clusters include 1) public affairs and government operations, 2) transportation, infrastructure, and public works, and 3) public safety, emergency response, and policing.

Graphical representation of the types of jobs that people hold in state and local government further refine the scope of opportunities that could be built out into career pathways.

Total volume of government jobs advertised by county.



Additional graphs illustrate data from online profiles of government employees, indicating where government employees have worked, educational programs completed by government employees, and the top schools that government employees attended.

KEY FINDINGS

- An estimated 53,882 people will need to be trained by 2020 to fill expected job openings in state and local government. Government jobs represent about 10% of the Metro's total employment; Critical sub-sector areas include Public Safety, Public Works, Public Administration, and Education.
- Already-existing government career pathways are aligned with some of the occupations with significant expected talent shortages.
- Legacy hiring practices may be too restrictive and may be introducing unintended bias into the talent recruitment process.

PARTNERS | Lead: John Thorson, Hennepin County

- Core Metro Sector Skills Academy Leadership Team: Hennepin County, Ramsey County, City of St. Paul, Future Services Institute, Office of Governor Mark Dayton
- Other Key Partners Engaged: DEED, Governor's Office/State Recruiters (DHS, DNR, MMB), Vadnais Heights Economic Development Council, Minneapolis College, Hennepin Workforce Leadership Council, Minneapolis Public Schools, Hired, Project for Pride in Living, Goodwill Easter Seals

ACTIONS & RECOMMENDATIONS

- Develop employer and/or industry recruiting credentials for a "public sector pathway"
- Focus on existing pathways and high demand ladder occupations in State and Local Government.
- Partner more closely with training providers on key pathways/establish training partnerships.
- Align the delivery of public services with the goal of building a more diverse workforce, being a more inclusive workplace.
- Remove barriers for legacy hiring practices (i.e. revisit and standardize minimum requirements for key occupations).

INFORMATION TECHNOLOGY: Skill Area Clusters

APPROACH Demand for occupations in IT cross every industry, with healthcare and business leading the way in job vacancies in the sector. Just under 80,000 people are employed in IT in the 7-county Minneapolis-Saint Paul metro, with the majority requiring some credential beyond a high school diploma.

Q4 2017

Continuing Growth, Expanding Opportunities
Information Technology continues to be a growing and high-wage sector of great importance to the finance, healthcare, and high tech industries. About 79,896 people are currently employed in IT roles, with about 7% of these found in state or local government. Employers continue to seek candidates with credentials, 98% of online job postings advertised during the 4th quarter of 2017 (10/1/2017-12/31/2017) required some form of credential beyond a high school diploma. Through 2020, but if growth conditions improve, could rise by 2.2% to about 83,163.

Information Technology Needs by Career Pathway

Sector Demand in the 7-County Metro, Q4 2017*

- Network Systems Pathway**
5,491 job ads (+30% from Q3) 14,298 employed
\$105,250 median posted salary \$92,000 avg. salary
- Web & Digital Communications Pathway**
3,726 job ads (+30% from Q3) 6,300 employed
\$108,300 median posted salary \$75,600 avg. salary
- Information Support & Services Pathway**
10,762 job ads (+22% from Q3) 7,286 employed
\$100,350 median posted salary \$63,500 avg. salary
- Programming & Software Dev. Pathway**
18,416 job ads (+22% from Q3) 32,932 employed
\$115,750 median posted salary \$108,200 avg. salary

Information Support & Services Pathway
10,762 job ads (+22% from Q3) 7,286 employed
\$100,350 median posted salary \$63,500 avg. salary

Top Occupations, Other Titles, & Median Posted Salary

- Computer User Support Specialists (Desktop Support, Tech Client Success Specialist) \$59,950
- Information Technology Project Managers (SAP Project Manager, SCUM Manager) \$112,250
- Computer Systems Engineers/Architects (Performance Engineer, Enterprise Architect) \$130,400
- Computer Operators (Print Production Associate, Data Card Operator, Letterhead Ops) \$34,900
- Geographic Information Systems Technicians (GIS Technician, Geo Systems Consultant) \$50,400

Top Posting Employers

- Target
- Walmart
- Best Buy
- Home Depot
- Walgreens
- CVS
- Wal-Mart Stores
- Walgreens
- CVS
- Wal-Mart Stores
- Walgreens
- CVS

Top Hard Skills

- Linux
- Microsoft Active Directory
- Firewall
- UNIX
- SQL

Cybersecurity Skill Cluster
53 job ads (+18%) out of 38,455 total (+28%) of all IT jobs advertised indicate security skills

Top Occupations Citing Security Skills

- Information Security Analysts (L347 Ad)
- Information Security Analysts (L348 Ad)

Top Posting Employers

- Target
- Walmart
- Best Buy
- Home Depot
- Walgreens
- CVS
- Wal-Mart Stores
- Walgreens
- CVS
- Wal-Mart Stores
- Walgreens
- CVS

Bootcamps, Dual Training Programs, & Other IT Credentials

Formal Education Graduate Employment Outcomes
Typical Entry-Level Position: BA Degree / Relevant Experience: 79%
Graduates of Programs Remain in MN & Work
Regional Certificate 2-Year, and 4-Year Program Graduates, 2014 (CIP 11*)

Instructional Program	Graduates	Graduates Employed in MN	% Graduates Employed in MN	Full-time Reported Wages in MN	Year-round median wage	% working full-time	% working part-time or seasonally
Computer Science	454	278	61%	\$63,442	\$60,442	88%	32%
Computer IT Administration & Management	359	251	87%	\$45,448	\$45,448	99%	4%
Computer Systems Networking & Telecommunications	208	179	87%	\$45,317	\$45,317	99%	4%
Computer Software & Media Applications	172	132	80%	\$43,366	\$43,366	94%	4%
Computer & Information Sciences, General	161	123	76%	\$69,663	\$69,663	78%	22%
Computer Programming	119	102	86%	\$49,075	\$49,075	99%	4%
Computer Systems Analysts	100	69	70%	\$43,491	\$43,491	78%	22%
Information Science/Studies	30	27	90%	\$66,361	\$66,361	36%	26%
Total: All Computer & Info Sciences & Support Services	1,607	1,165	77%	\$56,327	\$56,327	64%	36%

MSP TechHire Training Partners
Typical Entry-Level Position: BA Degree / Relevant Experience: 79%
Graduates of Programs Remain in MN & Work
Regional Bootcamps & Training Programs, Graduates and % Placed in Jobs

Organization	Total Trained	% Female	% 30+ HRCC
IT Study	209	29%	43%
PRIME	500	36%	57%
The Software Guild	107	30%	38%
WISCONSIN	6	0%	30%
IFCS	31	16%	3%
WISCONSIN	1	0%	100%
Total	877	22%	47%

Education Level of Bootcamp & Training Participants

Education Level	2015-2017	% Placed in Jobs
High School	677	79%
Some College	287	78%
Associate Degree	13	77%

Summary of the MSP TechHire training partner outcomes.

The high-level overview indicates the growing importance of IT roles across multiple industries.

IT jobs are rapidly changing, and most of the job titles used by employers do not align well with the occupation codes used in LMI. To address this problem, we classified groups of occupations into clusters by skill areas and career paths, using CTE and MN Department of Labor frameworks: Network Systems Pathway, Web and Digital Communications Pathway, Information Support and Services Pathway, Programming and Software Development Pathway.

The demand side of the Q4 2017 report focused in on a variety of training and education options for IT. Although 98% of job postings required an associate's degree or higher, there is also a vibrant local certification landscape in IT. The first table indicates the core instructional programs at colleges and universities in the region whose graduates went on to be employed in Minnesota within 2 years after graduation. 30% of all graduates of IT programs were people of color.

IT completions by occupation for a dual training program through MN Department of Labor and Industry illustrate another method that employers are using to upskill and credential their existing workforce.

KEY FINDINGS

- The majority of employers post job descriptions with a BA as a minimum qualification (89% of job postings in Q3 2017 and Q1 2018), but based on surveys, hire based on skill rather than educational credentials.
- Employers' ability to find enough skilled IT workers has been cited as a primary concern when considering locating or keeping their business in the region.
- Existing labor pool of IT professionals is nearly fully employed, with extremely low unemployment rates in occupations at all experience levels.
- Need to agree on how to talk about clustered occupations/skills relevant to the industry (combination of CTE, DLI, and other clustering approaches, i.e. Network Systems, Web & Digital Communications, Information Support & Services, Programming & Software Development).

PARTNERS | Lead: Tammy Dickinson, City of Minneapolis

- Core Metro Sector Skills Academy Leadership Team: City of Minneapolis, MHTA (SciTechSpierence Internship Program), Summit Academy, UpNet Technologies, Creating IT Futures, City of St. Paul
- Other Key Partners Engaged: DEED Regional Analysis, Minneapolis Urban League, Genesys Works, Jewish Family and Childrens' Services, Project for Pride in Living, IT Center of Excellence, DLI PIPELINE Program, Hennepin County, Global Knowledge, HDI, other MSP TechHire Training Partners

ACTIONS & RECOMMENDATIONS

- Regionalize a true sector partnership of training providers, employers, and workforce development (now grown from Minneapolis to include St. Paul - Over 430 employers have hired MSP TechHire graduates).
- Change the way employers hire for IT talent from degree-based to skill/certification-based.
- Work with MN State to identify ways to increase the output of degreed IT graduates.
- Align sector work to support and grow IT/STEM internships with MHTA SciTechSpierence and apprenticeship with DLI and MHTA.

TOOLS

In order for a truly comprehensive picture of the state and local labor market to come into focus, it is critical to make use of a wide variety of datasets, resources, and professional perspectives. Broadening the data sources creates a reliable and authoritative source of information on the status of the state's talent ecosystem. Potential data sources for sector labor analysis should be assessed according to the following criteria: credibility and validity of the data, statewide scope and potential to provide regional and local-level detail, ability to provide subgroup and equity-related analyses, timeliness, and availability and consistency of the data over time and across sources. All findings should be validated by a diverse group of community experts.

Public Information

LMI Data

Labor Market Information (LMI)

- Job Vacancy Survey (JVS, DEED)
- Occupational Employment Statistics (OES, DEED)
- Employment Outlook (EO, DEED)
- O*Net (US DOL)

Demographics

- American Community Survey (ACS, U.S. Census Bureau)
- Current Population Survey (CPS, BLS)
- Population Projections (MN Demographic Center)

Education

- IPEDS (NCES)
- SLEDS (DEED)
- Credential Programs (i.e. NIMS)

Workforce System

- DEED general reporting

EQUITY & INCLUSION

- Disaggregation of all data points by race and ethnicity whenever possible (IPEDS, SLEDS, Demographics, DEED workforce data)

Business

Proprietary Data

- Job Posting Data (TalentNeuron Recruit)
- Online Candidate Profiles (EMSI)
- Modified Employment Forecasts (JobsEQ)
- Hiring Data (From Employers)
- Employee Data (From Employers)

EQUITY & INCLUSION

- Disaggregation of employer hiring and retention data by race and ethnicity

Sector Partnership

- Organize by sector into flexible and responsive partnerships focused on shared value
- Awareness of and influence on workforce and education system
- Shared measures and aligned incentives improve performance of employers in hiring, development, and retention of talent
- Connect talent strategy to business strategy to improve competitiveness

EQUITY & INCLUSION

- Employer education and mobilization to adopt diverse hiring practices, reduce bias, increase development opportunities, and improve retention

Education/Workforce System

Internal Government Data

- Adult Training Program Outcome Data (WorkforceOne)
- Budget data and funding opportunities
- OHE Non-Credit Completions

EQUITY & INCLUSION

- Disaggregation of education and training outcomes by race and ethnicity

Sector Alignment

- Alignment of purpose with employer-identified demand planning
- Shared measures and aligned incentives improve performance of education and workforce partners

EQUITY & INCLUSION

- Solutions designed with an intentional focus on equity and inclusion

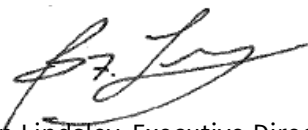
LESSONS LEARNED

- Sector-specific approaches are necessary to arrive at consensus around each sector's unique challenges and path forward.
- Short-term timelines keep issues grounded in manageable, reasonable action steps.
- Regionally-based analysis helps to move more quickly from data into action.
- Having a trusted outside party develop all sector reports and facilitate discussion allows for a simultaneously standardized and customized approach that moves beyond the typical program-based discussions into system-level strategy work.
- Strong leadership from within each sector keeps action plans moving forward and flow of communication moving smoothly.
- Equity and diversity must be integrated into every step in the process of workforce planning and development, starting from the data collection stage and moving through implementation and tracking to outcomes.
- A common foundation in similar data points helps to lift up sector-agnostic challenges, potential solutions, and universal shared outcomes.
- Sector-specific work must be able to connect into a larger, sector-agnostic plan for regional economic and workforce development with influential and diverse champions leading the effort.

FEEDBACK

Laying a strong foundation in sector-based occupational needs and talent pipeline planning is the necessary first step in developing a workforce plan. However, a strong report alone will not lead to systematic change, better programs, or improved outcomes without engaging the necessary leaders to take the next step. Even after reviewing the wealth of LMI, job postings, and educational data at our disposal, it is still essential to get out in the field and talk to employers, training program managers, and postsecondary directors get their take on the accuracy and relevancy of the data and your conclusions from it. Combining the qualitative and quantitative data available will result in more well-rounded solutions from the systems level to the program level. There is a whole range of training program outcome tools we highly recommend using to get a sense of how well training programs are working, or to evaluate individual programs or processes.

As we continue to drive forward sector-specific regional initiatives in workforce planning and development, we will continue to evaluate and modify our approach to collecting necessary data for decision-making. If you have thoughts about additional data that should be considered or included as sector plans are developed in our region or beyond, please contact us. We are invested in the long-haul for solutions that meet the needs of employers and the job-seekers of today and tomorrow for a better, more prosperous Minnesota.



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RealTime Talent

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LED BY THE BUSINESS TALENT COMMITTEE:

ITASCAproject



GREATER >> MSP



IN PARTNERSHIP WITH:



AND WITH LEADERSHIP FROM BUSINESS,
NON-PROFIT, AND SECTOR PARTNERS:

