

**Leading Occupations
in 2012**

*(Each representing at least 5%
of all Occupations in Cluster)*

*Mechanical, Installation and
Repair Workers (SOC 49-9)*

*Assemblers and Fabricators
(SOC 51-2)*

*Metal and Plastic Production
Workers (SOC 51-4)*

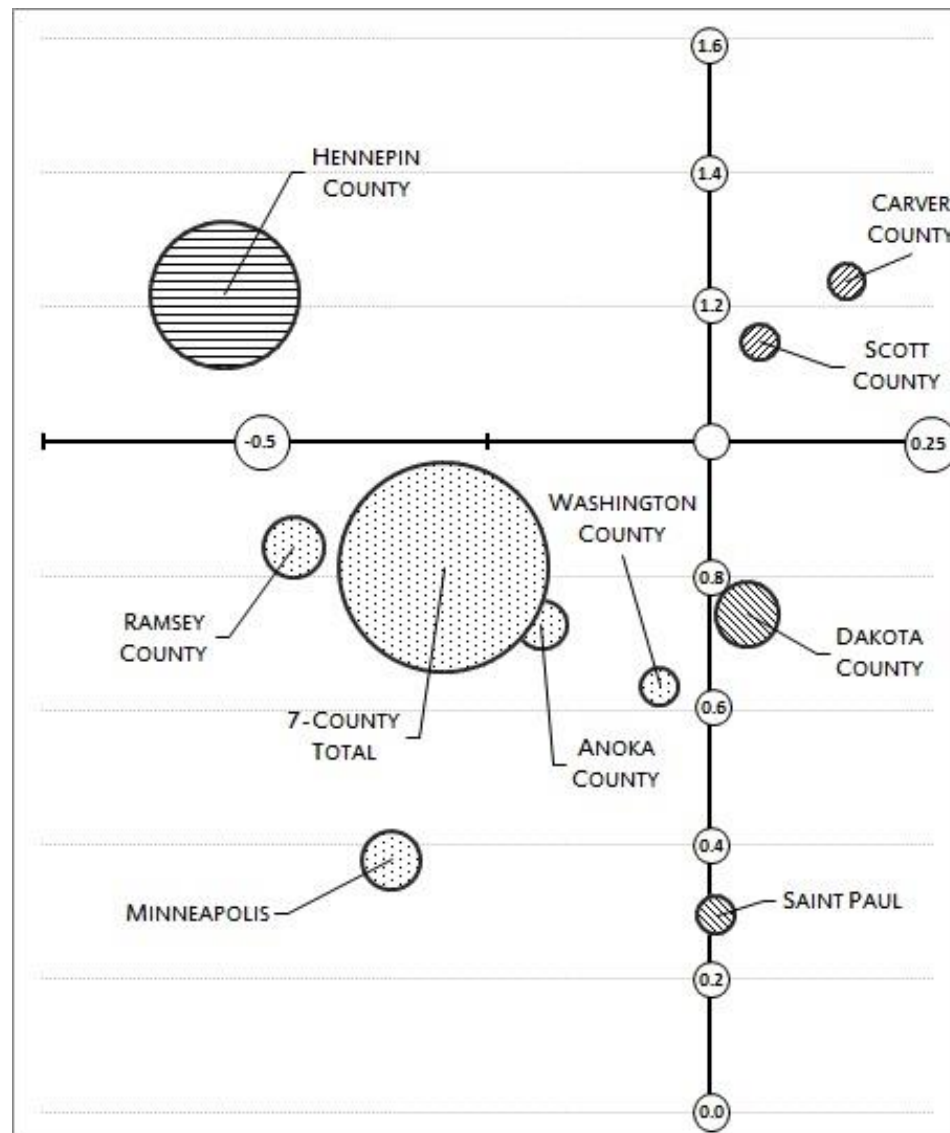
*Engineering Professionals
(SOC 17-2)*

*Wholesale Trade Sales
Representatives (SOC 51-4)*

*Information Technology
Professionals (SOC 15-1)*

	Employment (2000)	Employment (2014)	Location Quotient (2014)
Anoka	3,778	2,800	0.73
Carver	1,401	1,495	1.24
Dakota	4,465	4,425	0.74
Suburban Hennepin	34,553	22,293	1.22
Suburban Ramsey	6,721	4,033	0.84
Scott	1,684	1,654	1.15
Washington	1,881	1,613	0.63
Minneapolis	7,946	3,801	0.38
Saint Paul	1,781	1,706	0.29

In the figure below, bubble size is relative to the number of employees for the selected area. Areas above the solid horizontal axis have a high concentration of employment in the Advanced Manufacturing Cluster as compared to the rest of the nation. Areas to the right of the solid vertical axis have seen an increase in employment concentration in the Cluster since 2000, while those to the left have seen their concentration decrease.

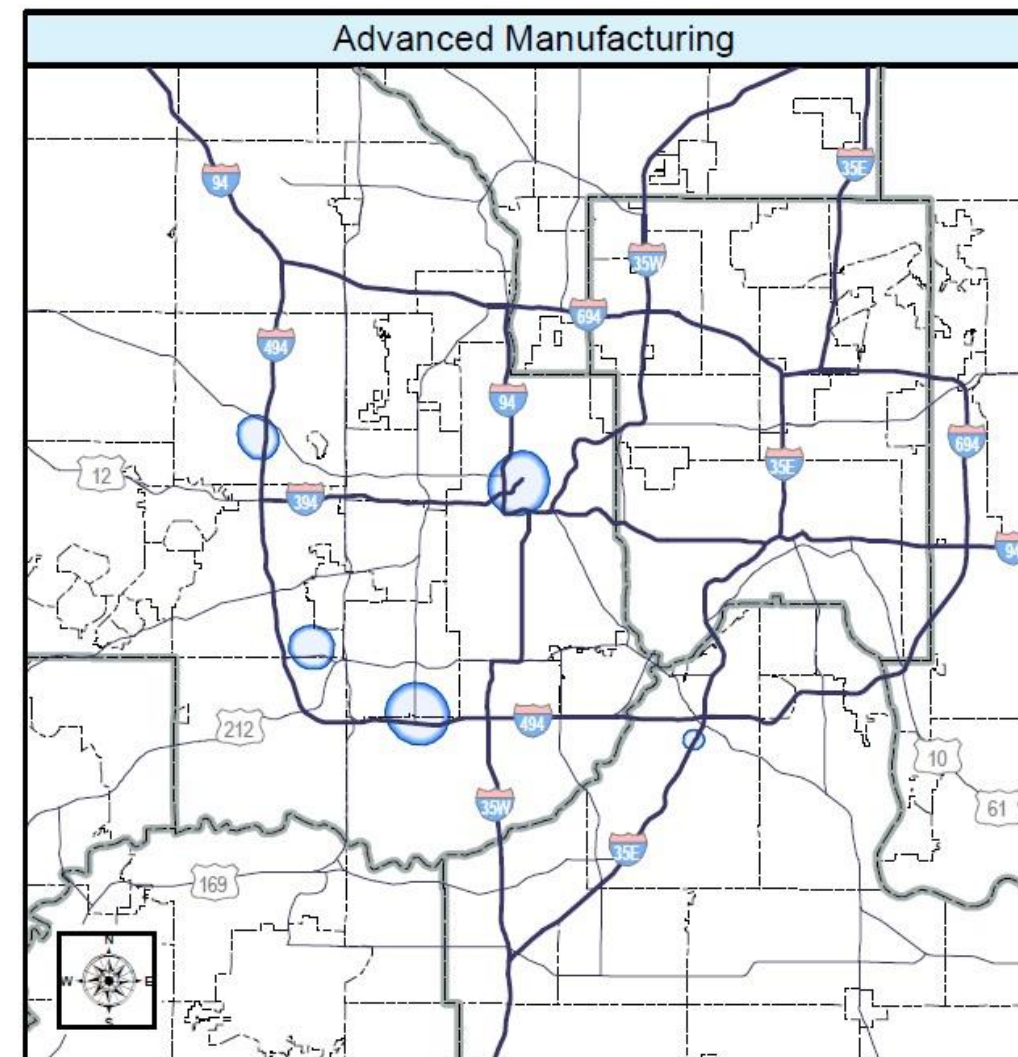


**RIGHT: CONCENTRATION OF
EMPLOYMENT ('14 + TREND '00-'14)**

-  HIGH + INCREASING
-  HIGH + DECREASING
-  LOW + DECREASING
-  LOW + INCREASING

ADVANCED MANUFACTURING CLUSTER PROFILE

The 7-county metropolitan region's "Advanced Manufacturing" cluster includes producers, manufacturers and wholesalers of machinery and equipment, as well as natural gas and electric power utilities and petroleum products manufacturers and wholesalers. This cluster does not include medical devices and controls (see the Health, Science, and Water Technology Cluster).



The map above generally illustrates those areas within the region that have job concentrations of more than 1 job per two acres in the Advanced Manufacturing Cluster (shaded blue areas), as of 2012.

**Number of Employees
(2012)**

46,996

**Employment Change
(2000 - 2012)**

-23,181

**Employment
Concentration (2012)**

1.08

A Location Quotient (LQ) of "1" represents the national average of employment concentration in an industry. With a LQ of 1.08, the Minneapolis – St. Paul region has an 8% higher concentration of jobs in Advanced Manufacturing industries as compared to the national average.

**Average Annual Wage
(2014)**

\$83,321

DATA SOURCE FOR THIS DOCUMENT:
2012 – 2014 Quarterly Census of Employment and Wages (QCEW), Minnesota Department of Employment & Economic Development (DEED). Note that certain levels of inconsistency and incompleteness may exist due to data confidentiality restrictions associated with these data sets, particularly at sub-regional geographies.

ADVANCED MANUFACTURING SITE SELECTION FACTORS

In 2015, we asked over 40 metro-area site selection professionals to provide their perspective on the primary factors that businesses in the Advanced Manufacturing Cluster consider when locating or expanding a facility. A summary of their responses is shared below.

Workforce Factors

- Ability to attract/retain business/management professionals
- Ability to attract/retain engineering and other technical professionals
- Ability to attract/retain production and operations professionals
- Ability to attract/retain mechanical and repair professionals
- Attractiveness of location to a young (30 & under) workforce
- Locations with access to academic, training, and professional development resources related to advanced manufacturing

Transportation Factors

- Immediate or quick proximity to limited access, state/federal highway(s)
- Location with appropriate traffic infrastructure (e.g., signalized, dedicated turn lanes) for safe and efficient access
- Proximity to suppliers
- Traffic congestion
- Proximity to commercial air service
- Rail access/reliability
- Proximity to customers

Real Estate Factors

- Preference for existing production/warehouse space over building new
- Prepared sites with infrastructure
- Location with capacity to expand with increased demand and/or production levels
- Bulk warehouse/distribution space
- Specialized space (e.g., technology or clean room)
- Cost remains a motivating factor

Community and Local Services

- Above standard level of electrical service/capacity
- Personal and property security
- Image of the area
- Proximity to recreation, entertainment and culture
- Local regulatory climate and permitting efficiency
- Local fees and taxes

Predominant Trends – Creating a talent pipeline is critical for advanced manufacturing; much of the talent is “aging out” of the workforce and there is a sense that the “bench” is thin. Site selectors are experiencing a need for an inventory of shovel-ready greenfield and redeveloped brownfield sites because expansion timeframes are very compressed. Urban sites are attractive because of proximity to workforce and transit; suburban greenfield sites typically offer lower land costs and space to expand longer term. Land is a one-time cost and relatively small; other factors like access to workforce, utilities, transportation, and taxes are on-going and vary geographically.