MAKE IT. MSP. INSIGHTS

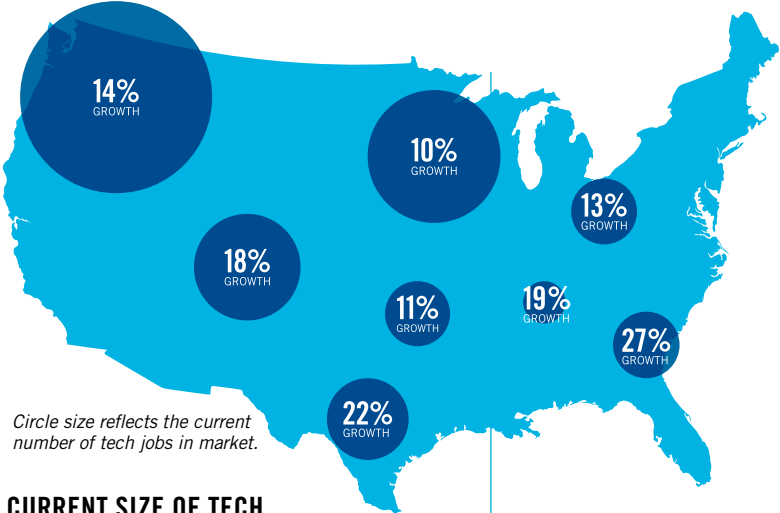## TECH TALENT IN THE MINNEAPOLIS-SAINT PAUL REGION

MAKE IT. MSP.®

GREATER ≫ MSP®

Minneapolis Saint Paul Regional Economic Development Partnership

The nation's tech story is changing

Tech employment will continue to change in surprising locations

Circle size reflects the current number of tech jobs in market.

14% GROWTH
10% GROWTH
13% GROWTH
18% GROWTH
11% GROWTH
19% GROWTH
27% GROWTH
22% GROWTH

CURRENT SIZE OF TECH LABOR FORCE WITH GROWTH RATE IN TOP US URBAN CENTERS

| CITY	2017 TECH JOBS	5 YEAR CHANGE
Austin	83,832	22%
Charlotte	68,297	27%
Columbus	67,640	13%
Denver	109,272	18%
Kansas City	66,788	11%
MSP	136,313	10%
Nashville	43,155	19%
Seattle	196,984	14%

EVERY INDUSTRY IS A TECH EMPLOYER

10%
Industries from insurance to agriculture are now enabled by tech. In MSP, a hub for insurance, more than 10% of jobs are in tech.

17%
Tech has infiltrated MSP's business services and HQs. Nearly 24% of business services jobs and 17% of HQ jobs are tech.
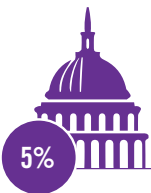
5%
Unlike many peers, MSP is also home to the state's government in Saint Paul. More than 5% of all govenment jobs in MSP are now tech jobs.

TIMES CHANGE. For instance, Minnesota's well-documented leadership at the dawn of supercomputing preceded the branding of Silicon Valley and its growth in the information age. Today, while growth continues in the Bay Area, tech employment in the rest of the country is catching up. During the last five years, metros like Seattle, Charlotte, Austin, and Nashville have experienced the highest rates of growth.

The Greater Minneapolis-Saint Paul region (MSP) has experienced 10% growth in tech jobs over the last 5 years, a significant increase in tech employment for a metro its size. This follows a similar trend being experienced by metros across the Midwest and Sunbelt, as high tech moves into more affordable markets with educated workforces and an ability to attract and retain talent.

However, the growth rate in MSP is not keeping pace with other tech hubs, including metros in the South like Charlotte, Austin, and Nashville, or others in the Midwest like Columbus and Kansas City.

TECH HAS INFILTRATED EVERY INDUSTRY, TRANSFORMING REGIONAL ECONOMIES
The increasing concentration of tech jobs is not just in traditional IT services, but also manufacturing, business services, headquarters, insurance, finance, and government.

For example, more than half of publishing industry jobs in metros like Seattle and San Jose are now tech and nearly half in metros like Austin, Denver, and Charlotte. In some metros, nearly 10% of jobs in the insurance industry are now tech. That share is actually higher than 10% in MSP, which translates to roughly 5,000 total jobs.

Business services include a mix of professional, scientific, and technical services. A significant share of these jobs are now tech jobs in most markets. In MSP, nearly a quarter of jobs in this industry are tech, more than 31,000 overall and growing at a higher rate than other industries.

TALENT MIGRATION MAY LOOK DIFFERENT IN TECH
The top reason that working professionals relocate is for job and career opportunities. In Make It. MSP. Insights Volume 2, we provided a holistic look at attraction and retention of professionals to metros throughout the region. Tech talent migration can look different depending on the metro.

For example, the biggest winners at attracting tech talent in 2018 were San Francisco and Seattle. Each metro added thousands more tech professionals than it lost. Other top performers include Denver, Austin, and Portland.

However, many of the nation's largest metros lost more tech professionals than they gained over that same period, including New York, Los Angeles, Chicago, and Boston.

Migration patterns informed by GREATER MSP analysis of LinkedIn user data of more than 135 top occupations in tech.


Here's how it's playing out in MSP

The region is already a tech hub thanks to global leadership in key sectors

MSP IS ALREADY HOME to more than 136,000 tech jobs – twice as many as Charlotte or Columbus and more than 60% higher than Austin. With every statistic and ranking regarding tech growth and hot markets, it can be easy to forget that MSP is already a tech giant hiding in somewhat plain sight.

136K JOBS

One reason that MSP often surprises is that our technology leadership is embedded in our sectors of strength. We are a tech hub in fields like health care, agriculture, retail, information security, and much more. So, what are some examples of this leadership?
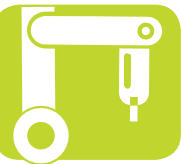
Our concentration of biomedical engineers shows a promising opportunity to bridge med tech with emerging technology in the food & ag sector. MSP boasts more than 1,200 biomedical engineers, more than 4 times the national average.

MSP is home to more than 3,000 information security analysts – more than twice the national average with a growth rate of 40% over the past five years. With the increasing importance of cybersecurity, this is an important opportunity for continued growth.

MSP HAS MAJOR OPPORTUNITIES FOR GROWTH
At the national level, industries experiencing the fastest growth of tech jobs include information services, construction, finance, and professional services. For example, tech jobs in data processing, hosting, and related services were up 167% in Seattle, 109% in Austin, and 51% in Denver during the past five years. Tech jobs in the broader business services industry were up 46% in Charlotte and 41% in Nashville during that same time.

MSP has trailed some of these peers in growth. However, one area where MSP leads its peers in tech growth is the finance industry. Over the last five years, MSP has seen tech growth in many industry sectors, but there has been a 52% growth rate in tech jobs in credit intermediation, which includes fund lending and other credit issuance like mortgage and loan brokerage.

There is opportunity for improvement in most other areas. MSP has experienced only modest (and sometimes negative) growth as compared to other fast-growing tech hubs in business services, headquarters, insurance, and IT services like data processing & hosting and software publishing.

GREATER MSP utilizes the tech job definition employed by The Computing Technology Industry Association (CompTIA) in the annual Cyberstates report. Cyberstates quantifies the size and scope of the tech industry and the tech workforce across multiple vectors. There are 50 standard occupation codes included in CompTIA's definition of tech occupations, including information technology, engineering and technician, installer/repairer, and assembler/operator occupations. The source for workforce data is EMSI (2018.4).

MSP TECH MIGRATION IS TRENDING IN THE RIGHT DIRECTION – TOPPING MIDWEST PEERS
In the Midwest, many metro regions lost more tech talent to other metros than they gained during the past year. However, MSP is attracting more tech talent than it is losing. Much of this is due to the region's high retention rate. Also notable is where that MSP tech talent comes from, and where it is headed.

The top net sources of tech talent for MSP include college & university cities across Minnesota as well as the Chicago, Des Moines, Fargo, Grand Forks, Madison, and Milwaukee metros. However, MSP loses significant numbers of tech professionals to metros like San Francisco, Seattle & Denver.

In contrast, Chicago relies on a pipeline of university towns from throughout the Big Ten conference. Another Midwest market, Columbus, benefits from recruiting tech talent from other large metro areas in the state of Ohio.

MSP TECH MIGRATION
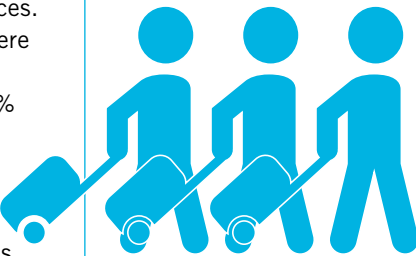
TALENT ATTRACTION
High net gain of tech talent from:
- Des Moines
- Chicago
- Madison
- Fargo
- Sioux Falls

TALENT LEAVING
High net loss of tech talent to:
- San Francisco
- Seattle
- Denver
- Raleigh-Durham

Everywhere you look there's a ranking

Navigating the various national tech rankings requires context

Here's where MSP comes out

No matter the context, MSP emerges in the heavyweight class of metros

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CASE STUDY
DIGGING INTO THE CBRE RANKINGS

CBRE's annual Scoring Tech Talent report often gains significant media coverage, industry attention, and social media shares. Here's a breakdown of a few metrics they use in their 2018 report.

TECH TALENT CONCENTRATION: CBRE limits the definition of tech talent to a group of 20 computer and mathematical occupations.

EDUCATIONAL ATTAINMENT: CBRE rankings focus on high-skilled tech, placing an emphasis on bachelor's degrees as an indicator of talent concentration. But tech jobs don't all require a bachelor's degree.

20-29

AGE RANGE: CBRE compares locations by the concentration of 20-29 year olds, and limited to those who reside in downtown areas. This methodology makes the MSP metro attractive, since it includes college-aged residents.

WE ALL SEE THE HEADLINES, often shared or recounted by a proud Minnesotan, exclaiming: "MINNEAPOLIS-SAINT PAUL RANKED TOP TECH MARKET" or "TWIN CITIES NAMED TO LIST OF TOP CITIES FOR STARTUPS!" Then, the very next day we see a list where MSP is nowhere to be found.

So, why do the "winners" vary so widely from one list to the next? The answers can be found by examining the context and perspective of the study itself. Terms like "tech," "talent," and "startup," have different meanings depending how you define them.

When talking tech talent, for example, or the relative size and concentration of the labor pool, one may prioritize college-educated young professionals and focus on 25-34 year old's with bachelor's degrees. Another may prioritize a specific skill and simply tally the number of people who have it. One thing remains constant: interpretations of tech talent rankings are bound to vary.

MSP #1

TO BREAK DOWN A RANKING, YOU NEED TO DO A BIT OF DECODING
As long as we value sharing rankings, more groups will publish them. Here are the criteria that can vary by ranking:

TOP 5 | **#3** | **"BEST"** | **BOTTOM 4** | **#2**

1 TECH OCCUPATIONS VS. INDUSTRIES
The ranking could examine the high-tech services industry or the tech occupations spread across all industry sectors

2 TECH TALENT GETS DEFINED DIFFERENTLY
Core tech jobs are typically computer and mathematical-related, while a broader view includes engineering, installation, and production-related occupations.

3 THE AGE OF TECH
Millennials aren't the only generation with tech skills. Including other cohorts paints a different profile of tech talent.

4 COMPETITION IS FRAMED DIFFERENTLY
Geography matters. Some compare individual cities, separating Minneapolis and Saint Paul. Others use a metro or a state.
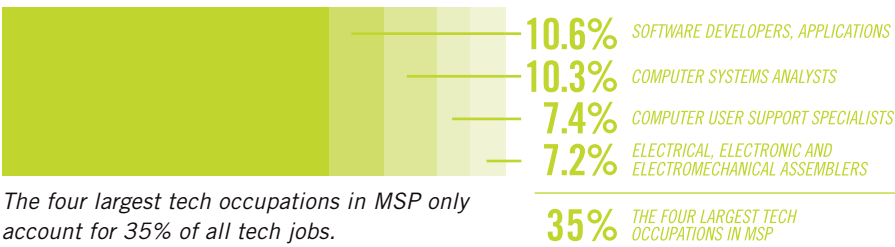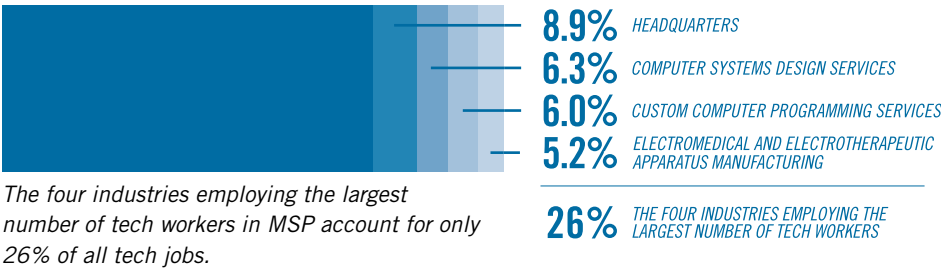
5 STARTUP DOES NOT EQUAL TECH
Sometimes measures of startup activity are used as a proxy, but a strong tech market also relies on established tech employers.

MSP SHOULD CLAIM ITS POSITION as a leading tech market and track its progress against top tier peers. Determining how MSP stacks up, depends on what you care about, from geography to growth rate. If you care about economic diversity, MSP has it.

8.9% HEADQUARTERS
6.3% COMPUTER SYSTEMS DESIGN SERVICES
6.0% CUSTOM COMPUTER PROGRAMMING SERVICES
5.2% ELECTROMEDICAL AND ELECTROTHERAPEUTIC APPARATUS MANUFACTURING
26% THE FOUR INDUSTRIES EMPLOYING THE LARGEST NUMBER OF TECH WORKERS

The four industries employing the largest number of tech workers in MSP account for only 26% of all tech jobs.

10.6% SOFTWARE DEVELOPERS, APPLICATIONS
10.3% COMPUTER SYSTEMS ANALYSTS
7.4% COMPUTER USER SUPPORT SPECIALISTS
7.2% ELECTRICAL, ELECTRONIC AND ELECTROMECHANICAL ASSEMBLERS
35% THE FOUR LARGEST TECH OCCUPATIONS IN MSP

The four largest tech occupations in MSP only account for 35% of all tech jobs.

RANKINGS FOR MSP CAN BE CONTRADICTORY DEPENDING ON THE COMPETITION

No matter who you contrast it with, MSP stands out for its relatively high ratio of women in tech at 23.6% and for having an older workforce, with 43.1% of tech workers being 45 years or older. Other characteristics depend on your point of comparison. For example:

WOMEN — MSP TECH LABOR FORCE

+45 YEARS — MSP TECH LABOR FORCE

Compared with fast-growing Midwest tech hubs like Columbus and Kansas City, MSP is larger, has higher job demand, is more racially diverse, and has higher housing costs.

Compared with fast-growing West coast tech hubs like San Francisco and Seattle, MSP has lower job demand, is less racially diverse, and has lower housing costs.
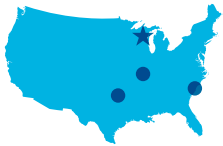
Compared with fast-growing Southern tech hubs like Austin, Nashville, and Charlotte, MSP is larger, has lower job demand, and has a slower rise in housing costs

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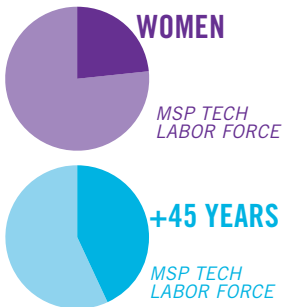
CASE STUDY
COMMUNICATING THE MSP TECH SCENE TO NATIONAL TALENT

If you think of a metro region as you might a product, then its attributes might be considered features. The product features that matter most to people when thinking about a move are:

$ ECONOMIC OPPORTUNITY

🏠 AFFORDABILITY (INCLUDING AVAILABLE HOUSING)

👥 PERSONAL CONNECTIONS LIKE FRIENDS & FAMILY

As Make It. MSP. partners marketed the region to tech jobseekers, the features that resonated most depended a lot on where the person was currently living.

However, some things held true no matter the person's current home. For one thing, people want to work in a tech environment where they can make an impact. With a legacy of solving real problems and building global leaders, people in MSP use technology as a means to helping people. This purpose-driven nature helps set MSP apart from other tech markets and showed consistent appeal to tech professionals.

PURPOSE

Make It. MSP. is a team-based effort

This strategic initiative of GREATER MSP counts 100s of partners

MAKE IT. MSP.®

GREATER MSP IS A PARTNERSHIP of public, private, and institutional partners, including cities & counties, colleges & universities, companies & foundations. The Partnership's vision is the Greater MSP region leads the world in inclusive economic growth by welcoming all, empowering talent, and igniting innovation. It is a bold vision for a vibrant region.

Achieving this vision requires working together. When it comes to talent and workforce, Make It. MSP. is one among many important interventions, created to focus on a specific opportunity – attracting & retaining talent. Near-term talent gaps in multiple skill areas are limiting employers' ability to expand in MSP and provide additional job opportunities. Make It. MSP. was designed as an employer-led response that counted more than 200 team members in 2018.

The initiative is now recognized as a global leader by the International Economic Development Council, winning a Gold Award in 2018. Thousands of people have made this possible by sharing their stories, contributing ideas, and building solutions.

2018 INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL EXCELLENCE IN ECONOMIC DEVELOPMENT AWARDS

Make It. MSP. partners share an ambition to make their home one of the nation's Top 10 metros at attracting and retaining talent. Success will translate to thousands more people staying in MSP each year – and thousands more relocating here. Further analysis of the region's performance can be found in Make It. MSP. Insights: Volume 2 and will be explored in future reports.

10

Top metros for talent attraction and retention

Partners have identified strategic areas of focus that can make significant, quantifiable impact toward this greater ambition. And importantly, each of these areas shares a large group of partners motivated to collaborate.

Near-term attraction of technology talent was one of these areas of focus. Other areas, including welcoming newcomers, retaining professionals of color, and converting interns, will be explored further in subsequent Make It. MSP. reports. Partners are working to examine additional strategies as well as opportunities at the intersections of these existing areas. **To learn more about Make It. MSP., please visit www.makeitmsp.org.**

INTERNS

NEWCOMERS

PROFESSIONALS OF COLOR

TECH

CLOSING NEAR-TERM TALENT GAPS IN TECH
Attracting tech talent at a Top 10 rate would add hundreds more highly skilled workers to the local labor force each year and unlock new opportunities for growing organizations. The MSP Tech team tackles this challenge holistically. Sustainable attraction efforts, after all, are dependent on a thriving tech community that works for all.

MSP M TECH

The MSP Tech team is comprised of recruiters, leaders of tech community groups, tech professionals, and other allies. They work together to design and execute collaborative projects to attract talent, as well as support efforts to advance a stronger local community that better welcomes and retains talent. **Visit tech.makeitmsp.org to learn more.**

Here are efforts of the MSP Tech team

The MSP Tech team works together to take action and share insights

WHEN IT COMES TO THE REGION'S WORKFORCE GAP and need for tech talent, these are unprecedented times. Make It. MSP. partners are willing to try new things. Not every project works, but each provides a tremendous learning opportunity.

It is likely that your organization has responded to this changing market. Perhaps you're sourcing candidates differently than you did 10 years ago. Or perhaps you are exploring new partnerships. Maybe you changed the way you write job descriptions and access previously hidden talent pools. It is also likely that more team members are engaged in the work of talent retention to reduce turnover rates.

In any event, if you are not continuously improving you may be falling behind. Some solutions are best realized by working in collaboration. Partners in the MSP Tech team are doing just that. Here are a few highlights from 2018:

300K TECH PROS
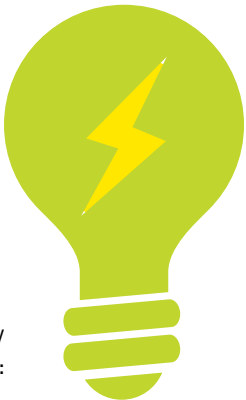
PROMOTING THE COMMUNITY BY PARTNERING WITH COMMUNITY
During 2018, the MSP Tech team reached nearly 300,000 tech professionals through digital marketing campaigns in key metros. Their efforts drove thousands of people to learn about living and working in MSP.

By partnering with MinneAnalytics, a leading Big Data, Data Science and Analytics community group, the team was able to expand turnout at the group's inaugural Boston-based conference, driving hundreds of attendees and even sparking a change in venue. Team members attended and promoted BETA's Twin Cities Startup Week (TCSW) fly-in program for jobseekers. Attendees visited TCSW, experienced the tech community, and later relocated.
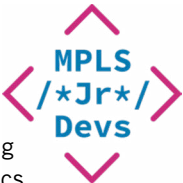

CHALLENGE TO A BIGGER NETWORK
During 2018, the MSP Tech team created the Tech Talent Challenge to identify innovative local solutions to attract and retain tech talent. A team of roughly one dozen partners scored submissions using a common evaluation process modeled after local business competitions like MN Cup.

By introducing Version 1.0 of the Tech Talent Challenge, the team was able to partner with TranscendIT, a program dedicated to increasing the number of women and people of color who move into technology careers as well as RecruitVR, a tool designed for talent leaders to bring MSP with them on the road to trade shows & events.

CHAMPIONING THE EFFORTS OF LOCAL TECH PROFESSIONALS
Tech professionals, like others, indicate more interest in connecting with their peers when exploring a place to live and work. The team looked to local tech professionals building efforts that strengthen the professional environment. The team supported local groups like Mpls Jr. Devs, Hack the Gap, and Blacks in Tech (now Techquity) while partnering on events with groups like Minnestar, MinneAnalytics, BETA, Enterprise Rising, and Code Switch.

MPLS /*Jr*/ Devs

THANK YOU TO MAKE IT. MSP. ENTERPRISE TEAM PARTNERS FOR MAKING THIS REPORT POSSIBLE

BEST BUY.	Bremer Bank	ECOLAB
General Mills — Making Food People Love	HealthPartners	LAND O'LAKES, INC.
Medtronic	POHLAD companies	sleep number
smiths medical — bringing technology to life	TARGET	tcf
THOMSON REUTERS	THRIVENT FINANCIAL	UNITEDHEALTH GROUP
usbank	WELLS FARGO	Xcel Energy

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