



How Skills Are Changing Talent Development

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Development

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“Talent-driven economic development is the future (and largely the present) of effective economic development efforts.”

- Stephen Moret, President,
VA Economic Development Partnership



Agenda

- The role of skills in regional talent development
- Emsi's new report: *Using Skills to Strengthen Regions*
- Case study: Medical device manufacturing in MN vs. CA
- What to do about regional skills gaps?





Emsi's mission is to use
labor market data to inform & connect
people, education, and employers.

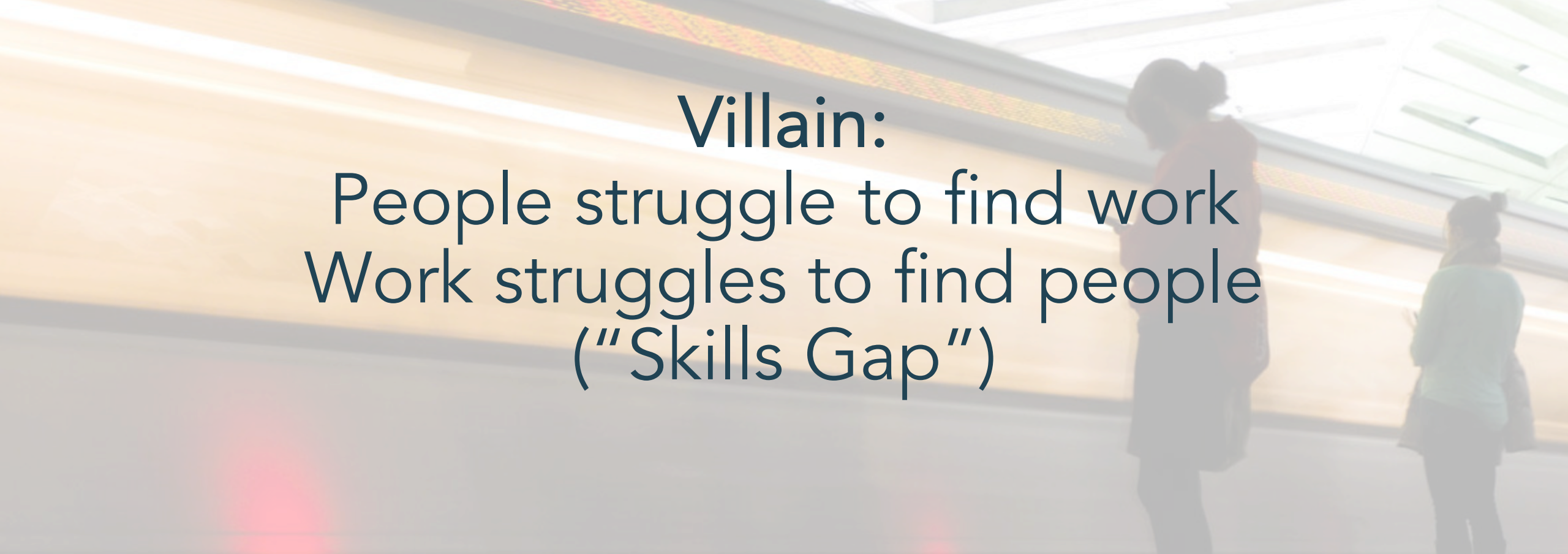




Hero in the story:
Organizations working to align people and work at scale.

Goal:
To be a valuable contributor

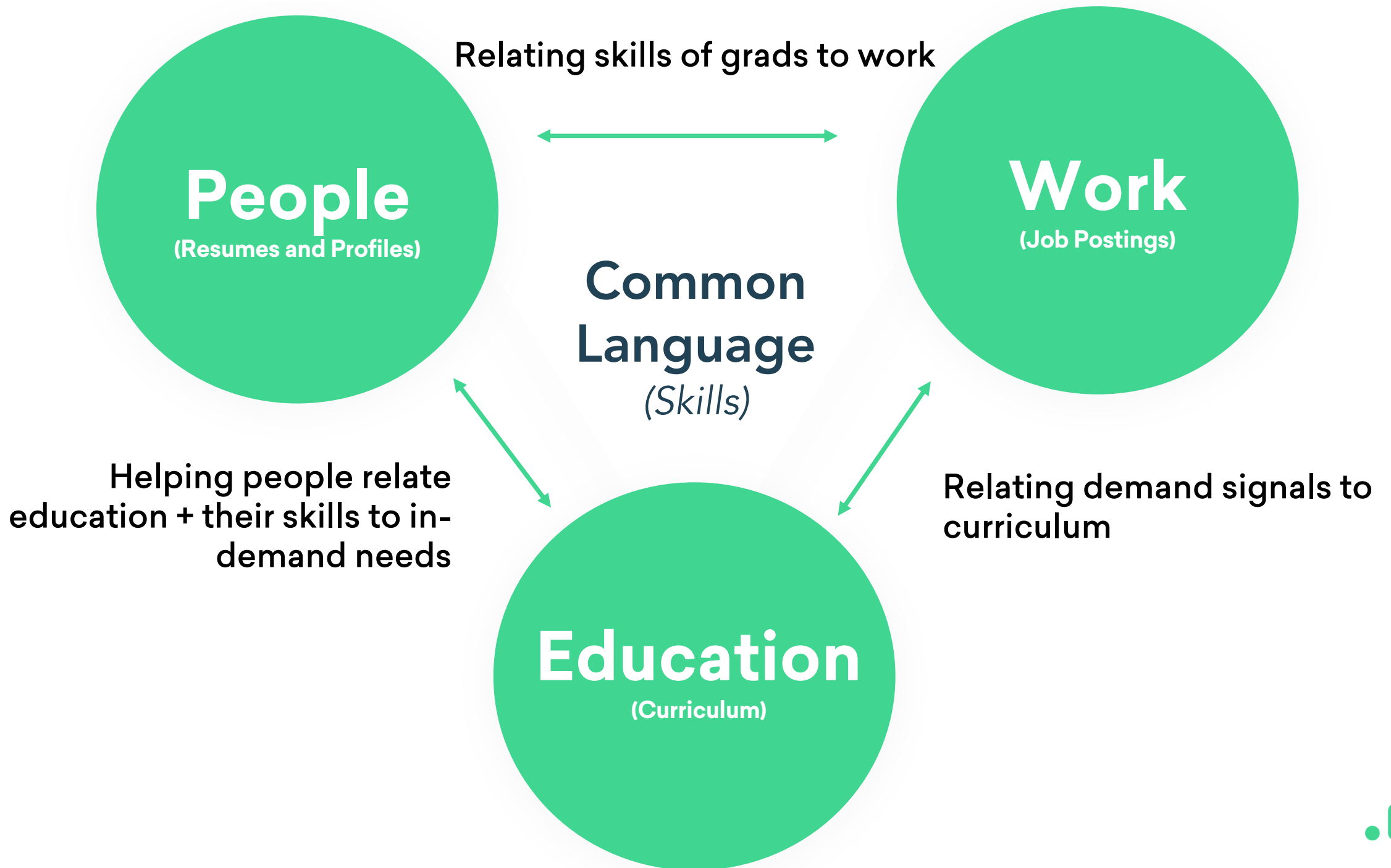




Villain:
People struggle to find work
Work struggles to find people
("Skills Gap")

- Organizations - seen as being worthless or out-of-touch
 - Lack of good information
 - The era of information is changing this





Emsi Skills

It's time for people, education, and work to speak the same language.

This new initiative helps your organization use skills as a common language between people looking for work, work looking for people, and educational programs looking to connect people to the labor market.

[Get access](#)[Learn more](#)

What is a skill?

A word that communicates value / is used consistently between:

- Companies (in job postings),
- People at work (in resumes/profiles), and
- Education (in curriculum).



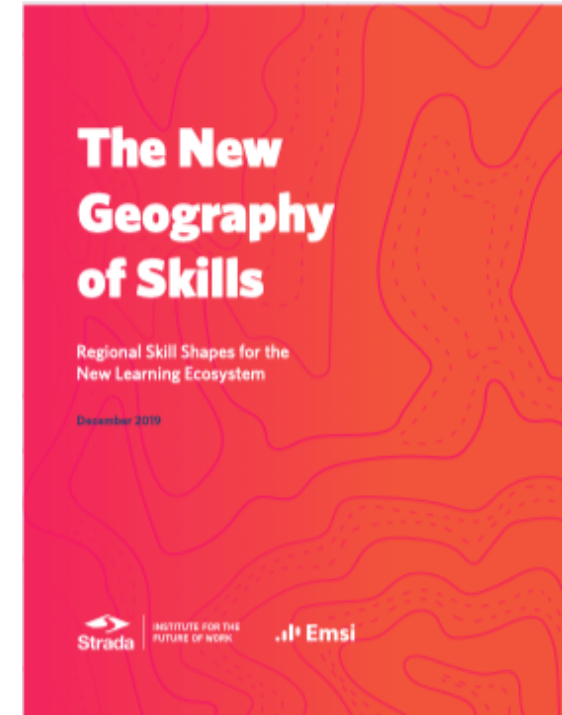
Using Skills to Strengthen Regions

A new way to help regions stay competitive
in a fast-paced, talent-based labor market



The New Geography of Skills

- Strada collaboration
- Skill Shapes
 - Every region / every region / every person has a unique skill shape
 - Useful to nuance a wide array of education, workforce/economic development, talent, and policy directions
- Key to unlocking new learning ecosystems



While structural data define skills related to job titles and occupations, skill shapes define roles based on skills that cluster together as they evolve in the job market.

Taxonomic Approach

Related by category

19-0000 Life, Physical, and Social Science Occupations

19-1000 Life Scientists

19-1011 Animal Scientists

19-1012 Food Scientists and Technologists

19-1013 Soil and Plant Scientists

19-1021 Biochemists and Biophysicists

19-1022 Microbiologists

19-1023 Zoologists and Wildlife Biologists

19-1029 Biological Scientists, All Other

19-2000 Physical Scientists

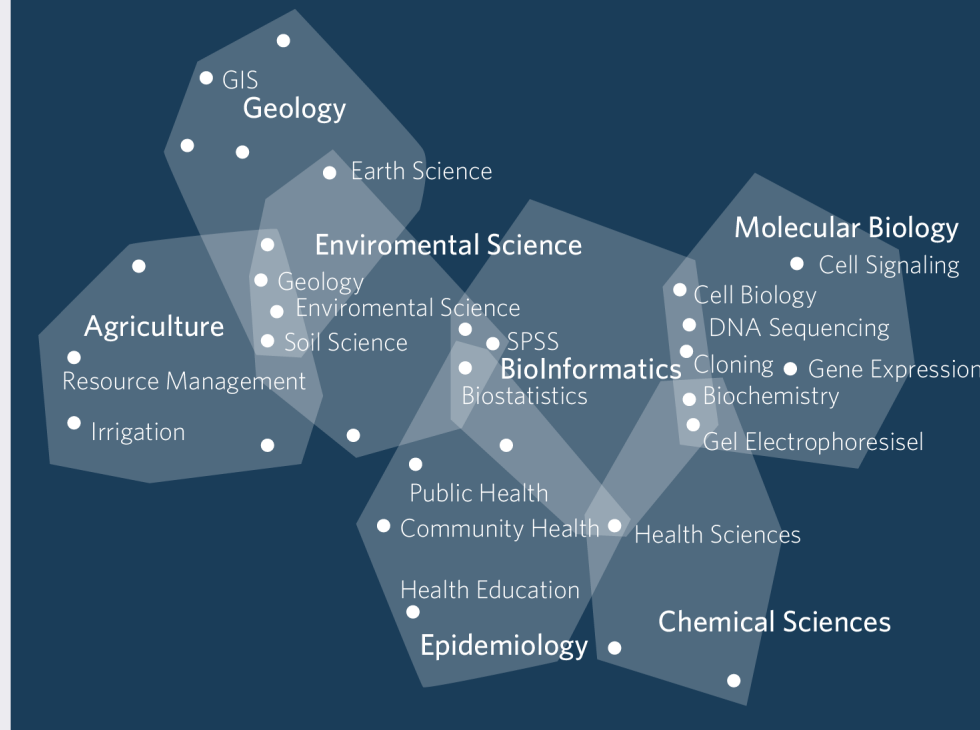
19-2011 Astronomers

19-2012 Physicists

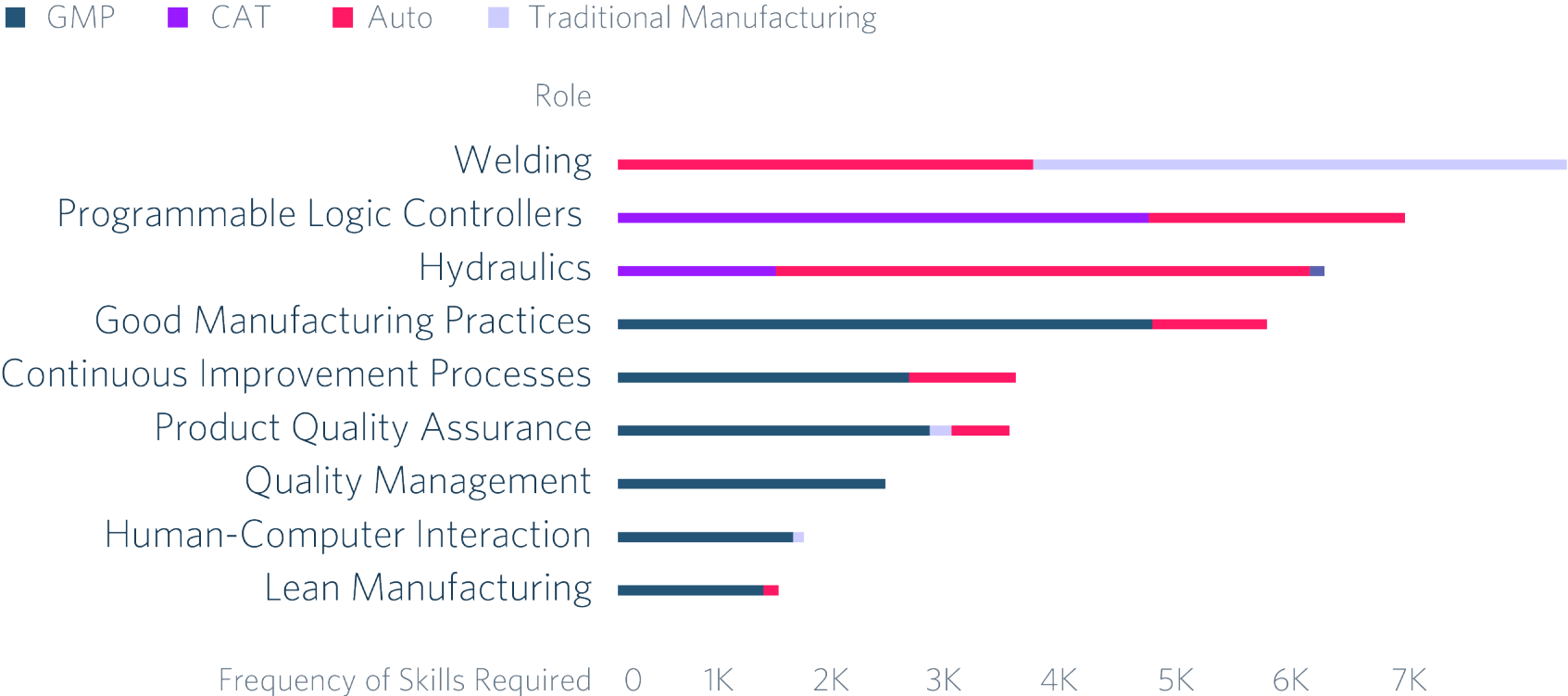
19-2021 Atmospheric and Space Scientists

Skill Shape Approach

Categorized by relationship



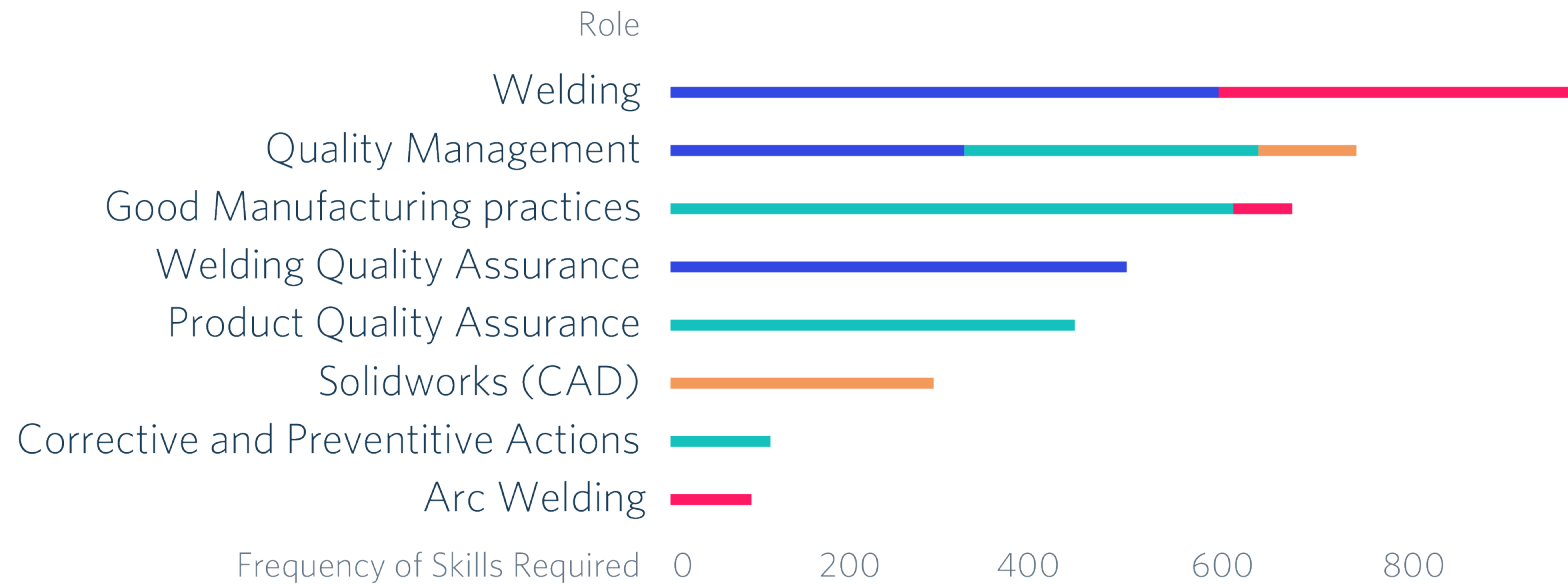
In Southern California, the skill shape of manufacturing roles emphasizes manufacturing process controls, quality assurance and process improvement.



Source: Emsi Job Posting Analytics, 2019

In Northern California, the skill shape of manufacturing roles includes a mix of understanding automation and quality control

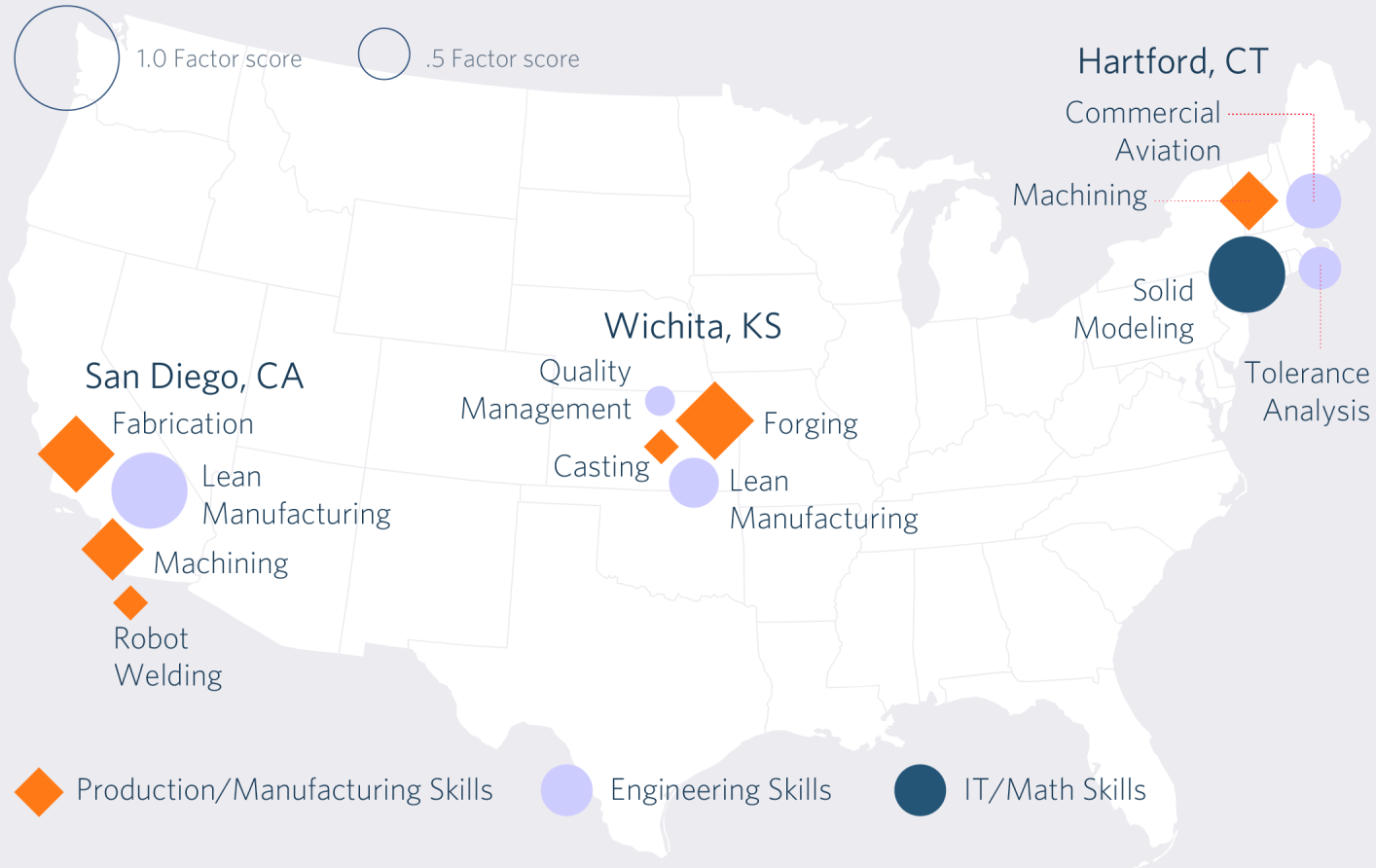
■ Automation ■ GMP/Six Sigma ■ Industrial Design ■ Automotive



Source: Emsi Job Posting Analytics, 2019

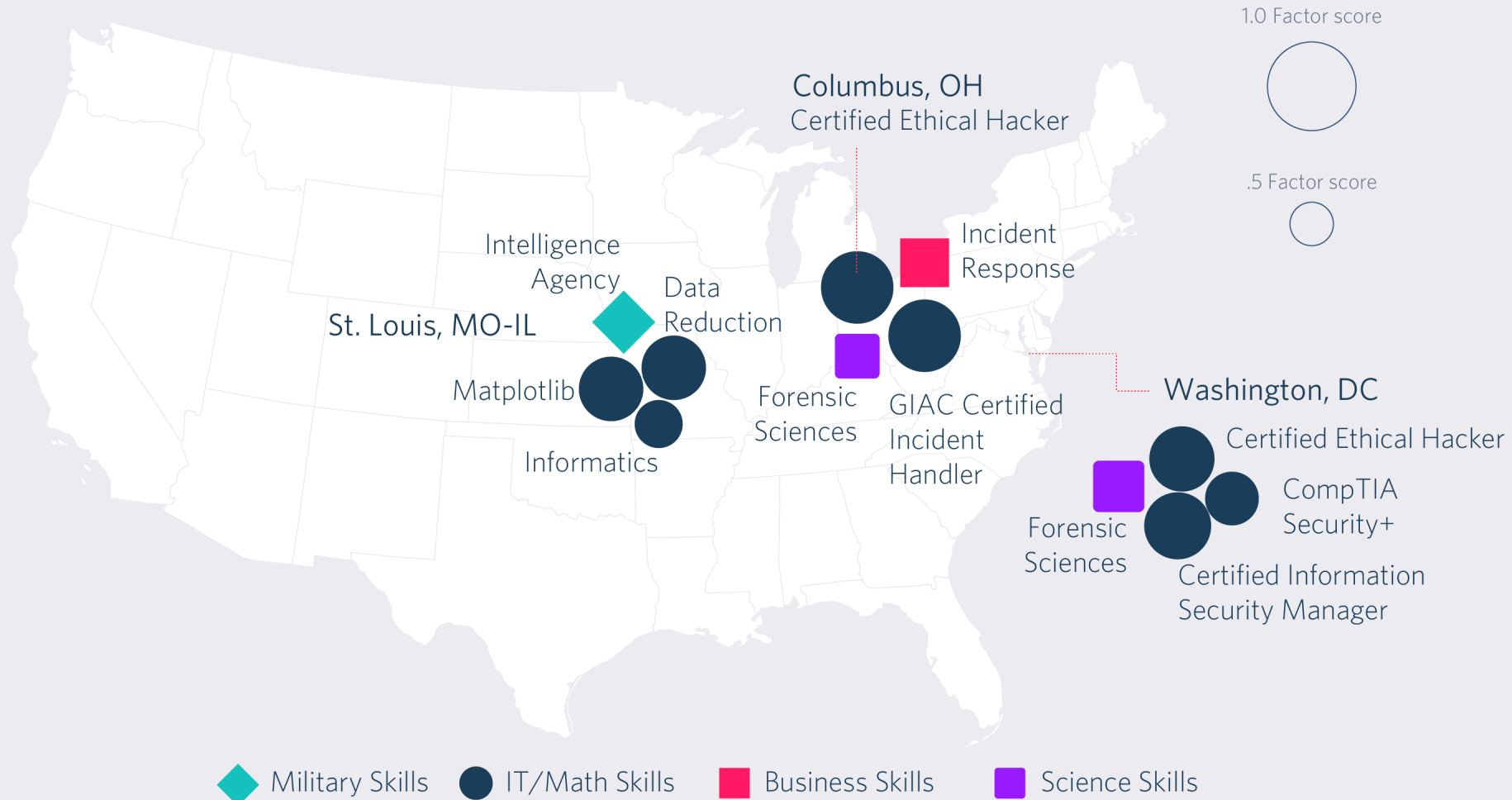
San Diego, Hartford, and Wichita have unique regional skill shapes:

In San Diego, the production environment requires a unique set of automation-related skills; in Hartford, solid modeling and tolerance analysis; in Wichita, forging and casting skills overlap with lean manufacturing.



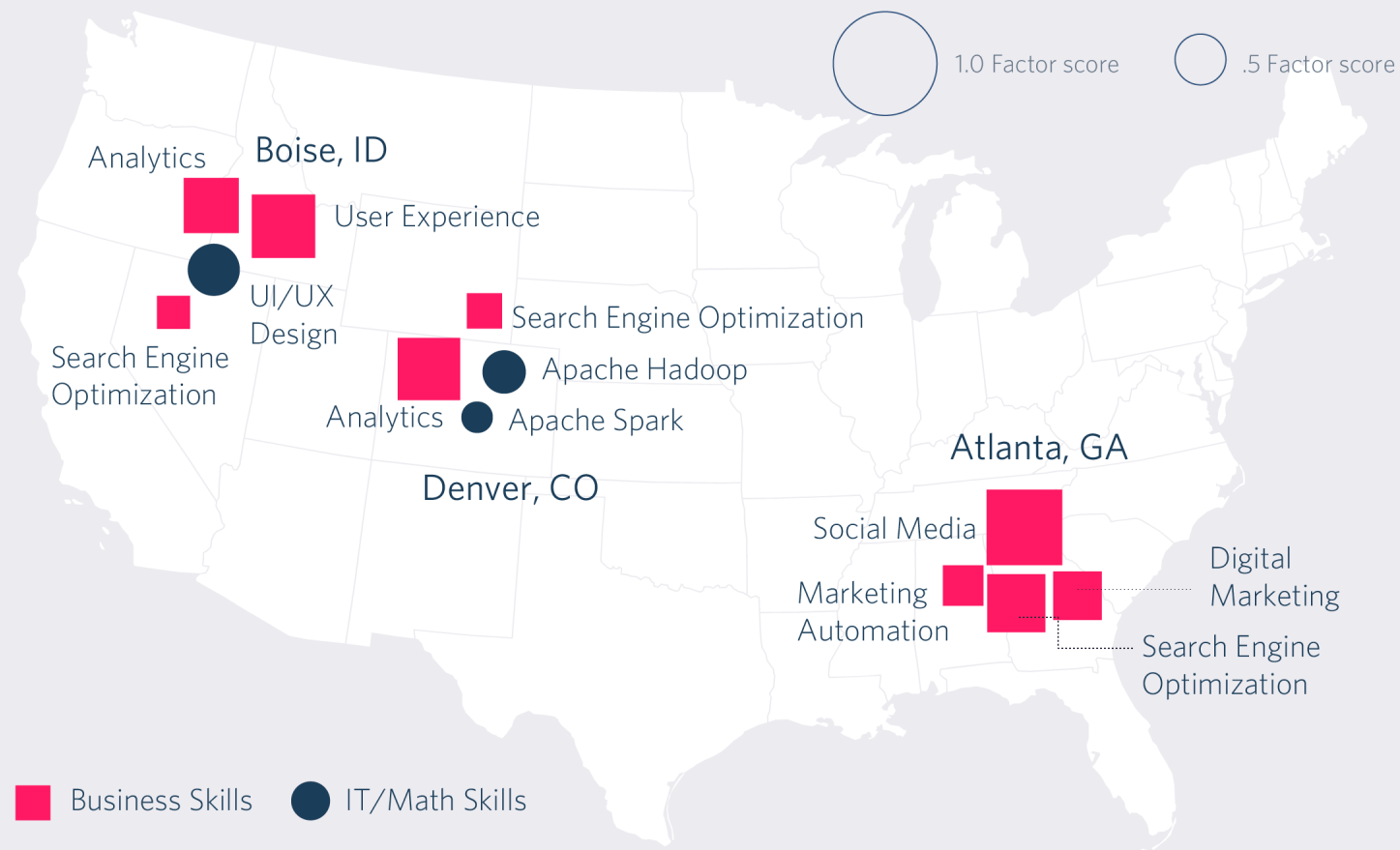
Source: Emsi Job Postings and Profile Analytics, 2019

Washington, DC, St. Louis, and Columbus feature distinctive skill shapes for cybersecurity careers.



Source: Emsi Job Postings and Profile Analytics, 2019

In Denver, digital marketing roles are oriented toward analytics and cloud computing, while in Boise, they are oriented toward design and web development, and in Atlanta they are geared to marketing automation.



Source: Emsi Job Postings and Profile Analytics, 2019

Using Skills Summary

Blending traditional or structural labor market data with skills to give regions a more actionable way to deal with emerging needs.



Capital of Med Device Production

Click to add subtitle

- World leader in production. Home to a company like Medtronic, 3M, Boston Scientific, Abbot, Electromed, etc
 - 9,400 production roles
 - 4,500 engineers
 - 1,800 software devs / analysts

INDUSTRY SNAPSHOT

Greater Minneapolis

- Electromedical & Electrotherapeutic Apparatus Manufacturing
- Surgical & Medical Instrument Manufacturing

JOBS (2019)

25,585

897% above nat'l average

% CHANGE (2014-2019)

12.4%

Nation: 13.8%

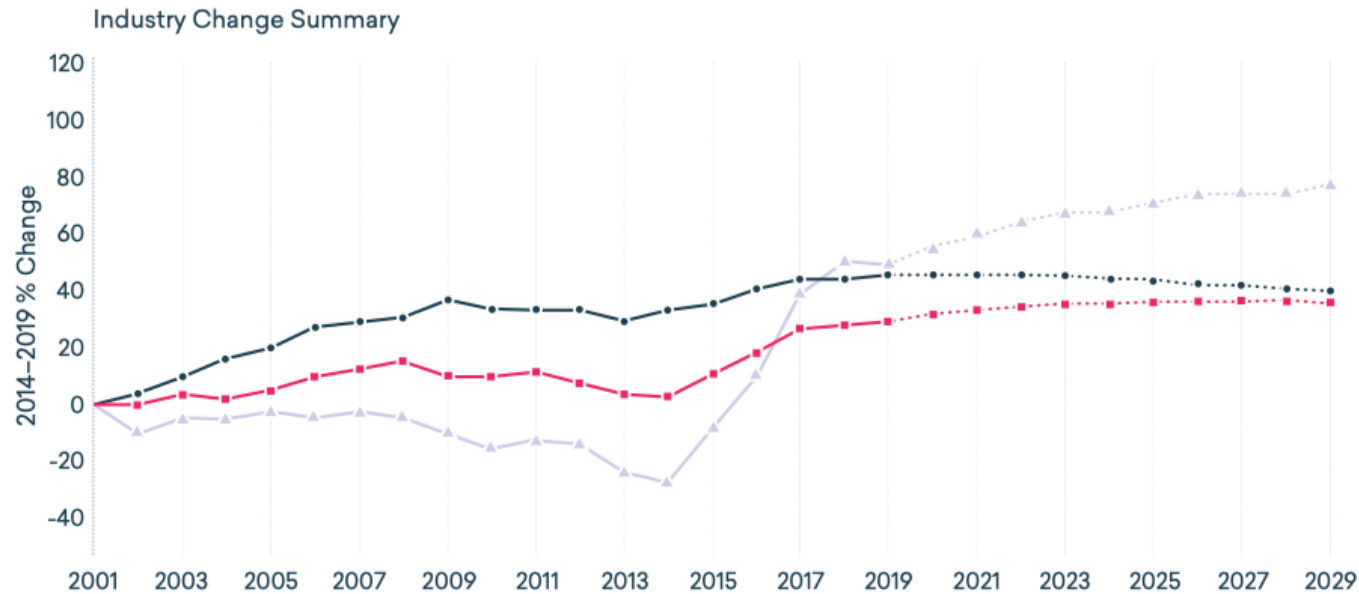
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California is catching up

REGIONAL EMPLOYMENT BY INDUSTRY

Electromedical & Electrotherapeutic Apparatus Manufacturing Across 3 Regions



Region	2014 Jobs	2019 Jobs	Change	% Change	Businesses
● Minnesota	13,238	14,474	1,235	9%	76
■ United States	55,391	69,389	13,998	25%	1,501
▲ California	9,066	18,533	9,467	104%	356

Source:
Emsi Labor Market
Analytics, 2020

JOB POSTINGS FOR ALL JOB TYPES AT MEDTRONIC, INC. IN 2019

Minnesota



4,276
UNIQUE POSTINGS



30%
POSTINGS INCREASE

California



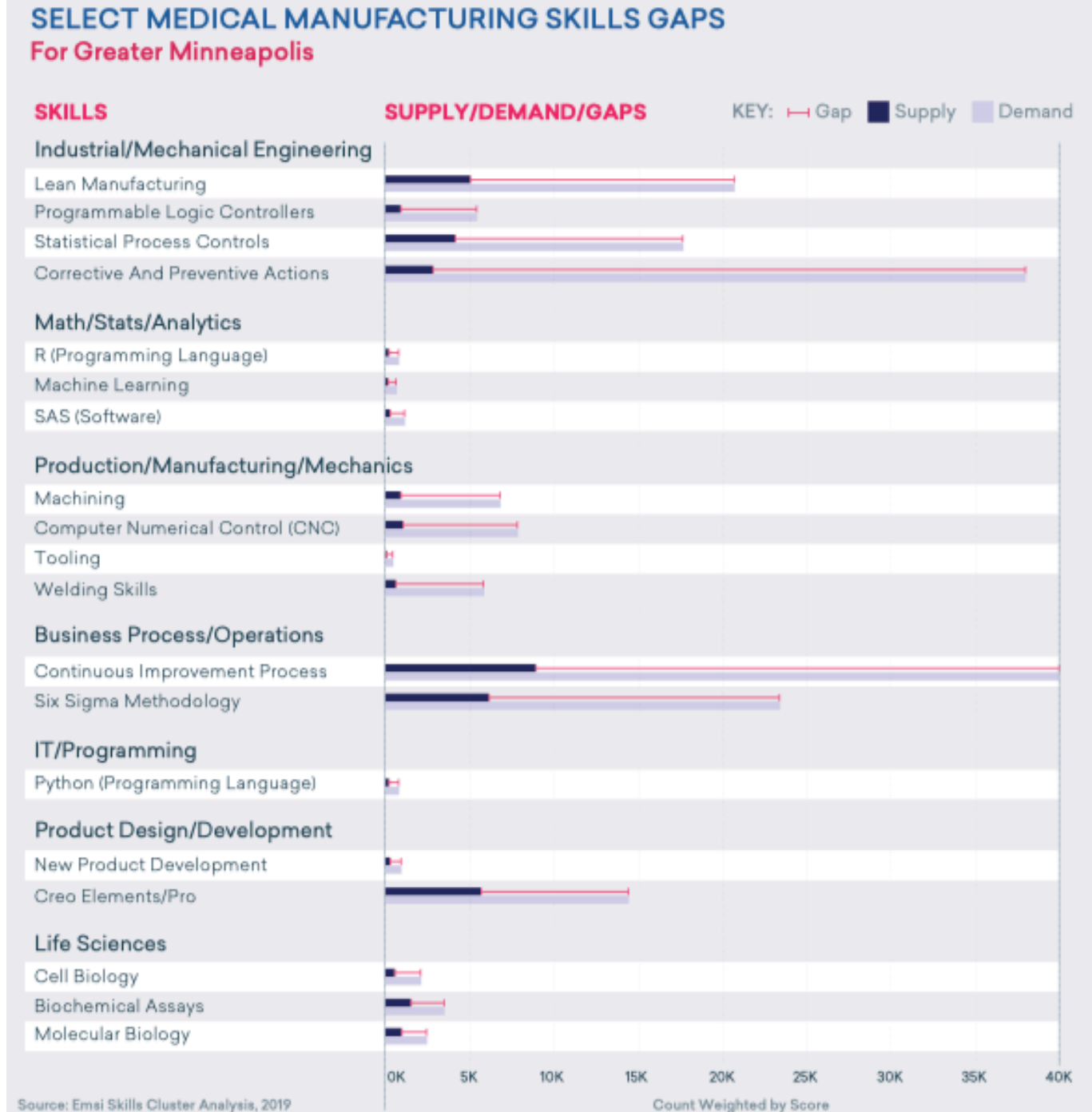
2,936
UNIQUE POSTINGS



54%
POSTINGS INCREASE

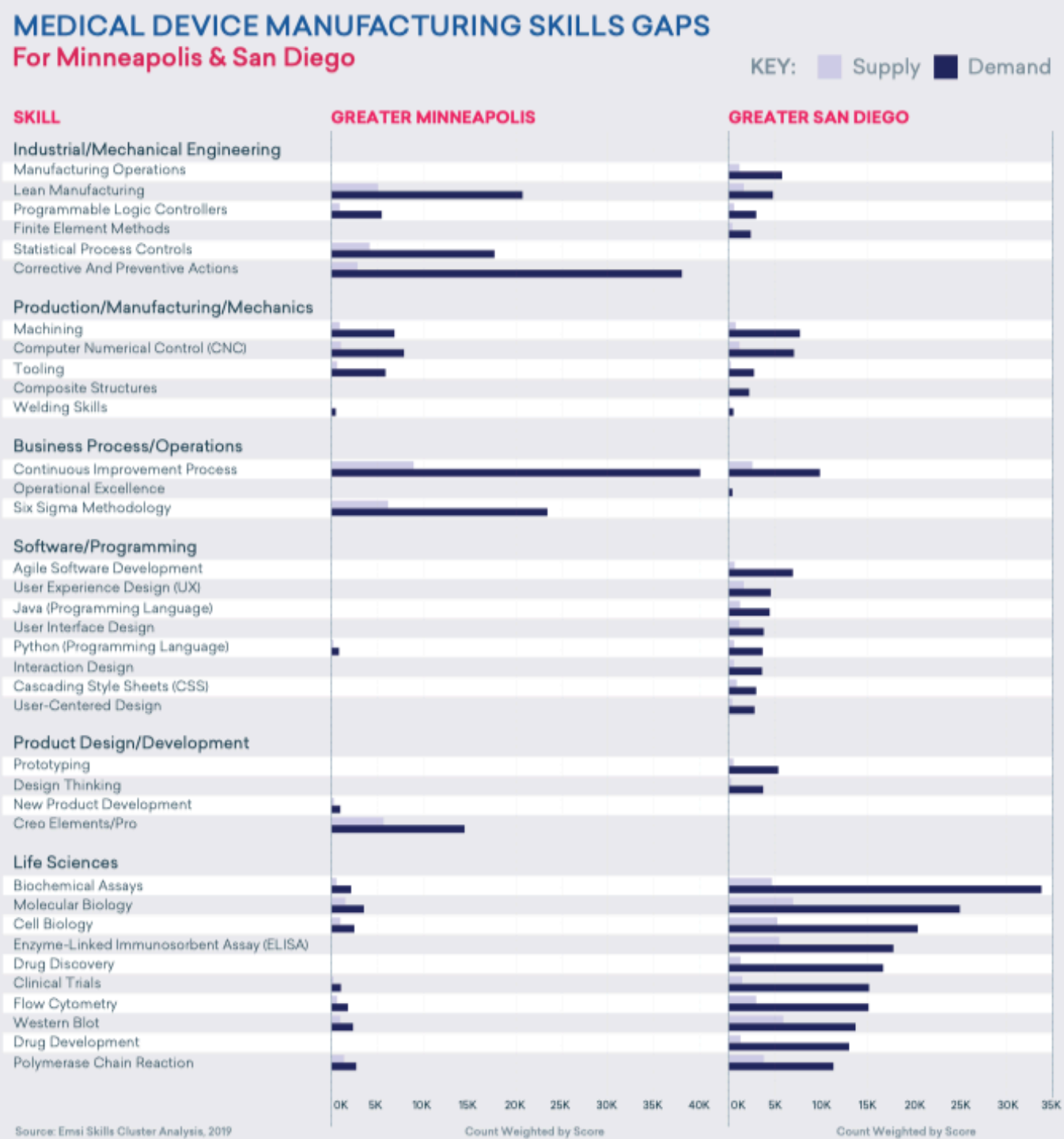
MN's Skill Shape

- Heavy focus on engineering, production, and business process/operations skills
- Companies are likely having a hard time finding enough talent with lean, logic controllers, statistical process controls, etc



MN vs CA

- San Diego shows heavy emphasis on life sciences and software
- San Diego also shows a lot more potential for the skills that MN has.
- Concerning for MN leaders. Med device manufacturers are likely finding more skills in S. CA



What to do?

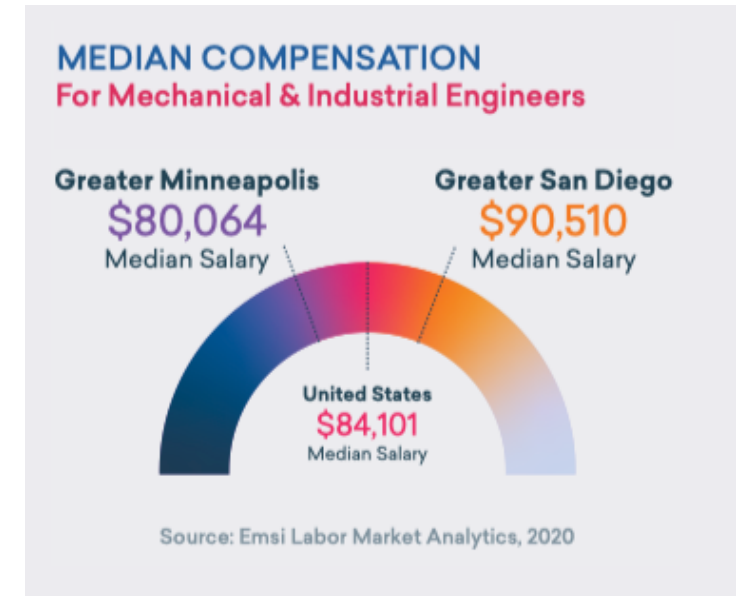
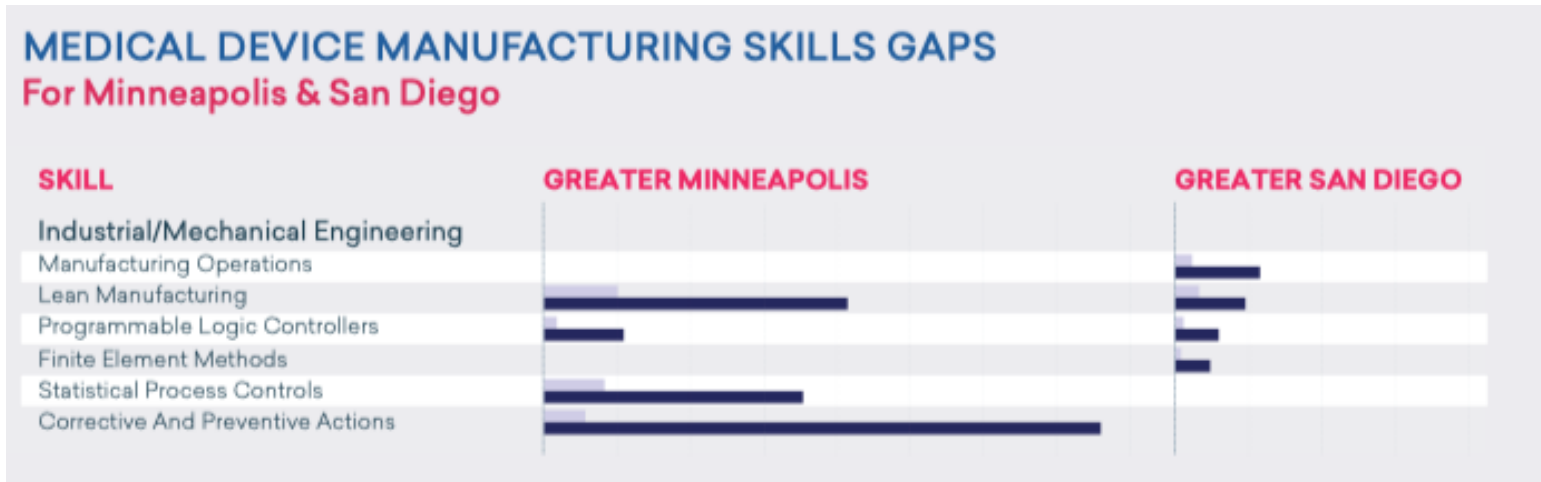


1. Know strengths and look to diversify

- San Diego looks more diverse from a skills POV
- Minneapolis economy likely needs to talk to industry leaders to validate and to explore ways of adding in software and life science skills
- Minnesota also needs to shore up existing gaps.
- This provides very specific focal areas where discussions about curriculum and hiring can be much more specific.



2. Identify competitive upskilling opps



- Double down on your strengths and fill those gaps
- Set your economy up to be competitive (even for other industries that need that talent)
- MN has an opportunity for CAPA and lean... and COL.



3. Strengthen Local Pipeline

- Minneapolis has high talent retention, but likely is struggling to develop enough talent.
- California's postsecondary system dwarfs Minnesota
- Focus on key micro-credentials or specific programs to fill gaps

TOP SCHOOLS
Attended by Minnesota employees in
electromedical manufacturing

SCHOOL		
University of Minnesota, Twin Cities	2,111	31%
University of Saint Thomas	608	9%
Saint Cloud State University	392	6%
University of Wisconsin at Madison	225	3%

Source: Emsi Profile Analytics, 2020

TOP SCHOOLS
Attended by California employees in
electromedical manufacturing

SCHOOL		
San Jose State University	297	4%
University of California, Los Angeles	296	4%
University of California, Irvine	293	4%
University of Southern California	288	4%
California Polytechnic State University	257	3%
California State University, Northridge	254	3%
University of Phoenix	241	3%
University of California, San Diego	231	3%
University of California, Berkeley	211	3%
California State University, Fullerton	210	3%

Source: Emsi Profile Analytics, 2020



4. Identify Microcredentials

- Manufacturing math and technology
 - Statistical process controls
 - Programmable logic controllers
 - Creo Elements design
- Quality Assurance
 - CAPA
 - Regulatory requirements
 - Quality management systems
- Lean Manufacturing
 - Manufacturing operations
 - Continuous improvement process
 - Six Sigma



What is the role of labor market analysis?

1. **Discovery** – Know the base, structure, and trajectory of the community. What is driving jobs, what do we need to focus on?
2. **Strategy** – Address the new economy and make the college responsive
3. **Leadership** – not just following – but creating the economic development narrative
4. **Relationships / Focus** – Building relationships in key areas, driving focus to what matters most, engaging people with meaningful, objective information



A COMMON SKILLS LANGUAGE IS A NET WIN FOR:



- **THE PEOPLE** who can likely leverage these high-demand skills into better-paying, more in-demand jobs
- **THE COMPANIES** who need to fill critical roles
- **THE COLLEGES** or other training providers because they will be producing valued curriculum
- **THE REGION** itself that wants to retain talent and companies at the same time



Calls to action

- **Download** new report: EconomicModeling.com/Skill-Shapes
- **Visit** Skills.EmsiData.com
- **Talk** to us about understanding your regional skills gaps



Thank You

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