

HEARTLAND FORWARD

AN INSTITUTE FOR ECONOMIC RENEWAL

Characteristics of Successful Cities: The changing dynamics in economic development

NABE Annual Meeting
Nashville Grand Hyatt, TN | October 1, 2024

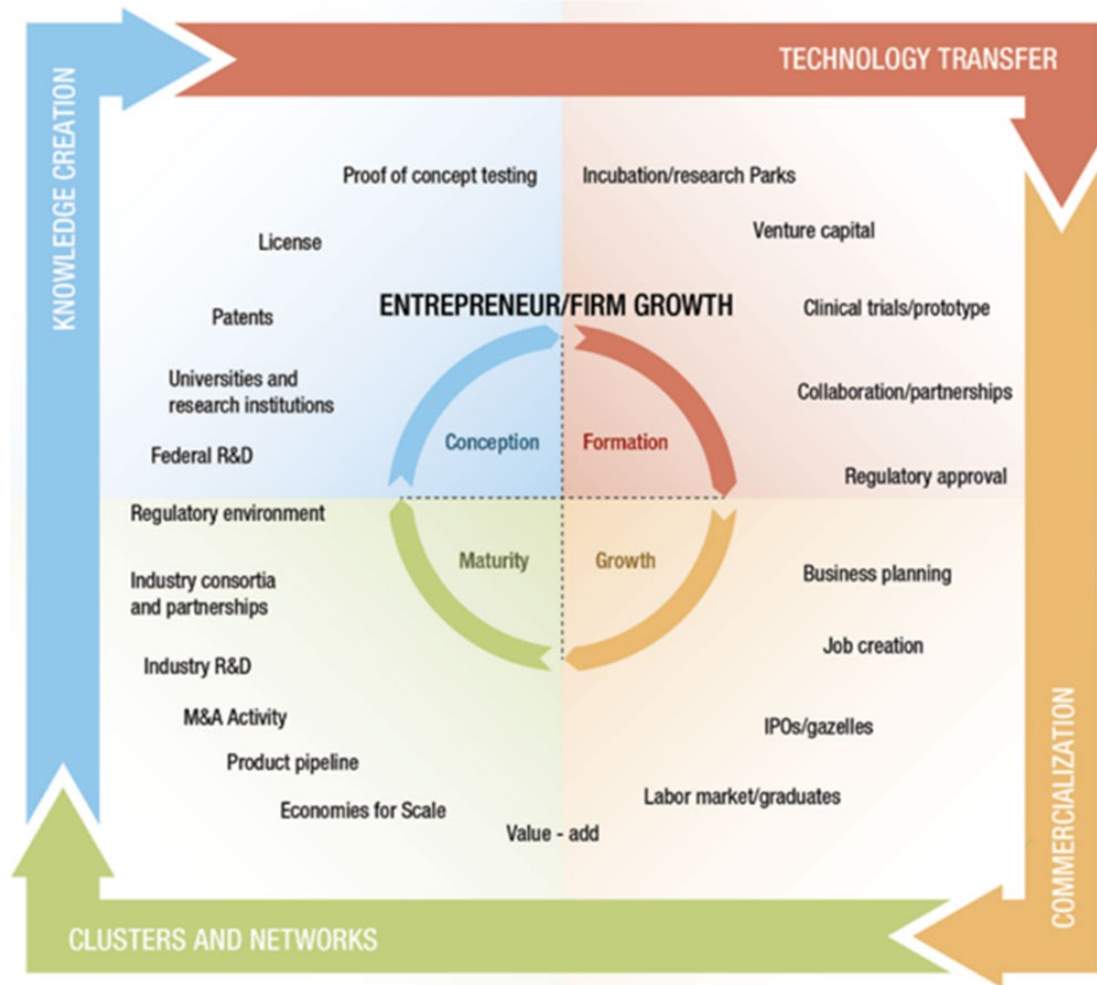
Presented by:

Ross DeVol
President and CEO, Heartland Forward
<https://heartlandforward.org>

Presentation overview

- Innovation in economic development
- Role of research universities
- What role does entrepreneurship play in determining regional economic success?
- Is talent retention and recruiting becoming as important as recruiting companies?
- Most Dynamic Metros
- Reshoring jobs for America: why and how?
- Modern approach to incentives
- Quality of place: health and remote work alter the landscape of work for places
- Have a placed-based plan

Regional innovation life cycle





**HEARTLAND
FORWARD**

MAY, 2022

**RESEARCH TO RENEWAL:
ADVANCING UNIVERSITY
TECH TRANSFER**



University Technology Transfer Index variable weights

	Source	Percent of total weighting		
		Average Value (2017 – 2019)	Normalized Average Value (2017-2019)	Total Variable Weight
Invention Disclosures	AUTM (2019)	5.55	5.55 ¹	11.11
Licenses and Options Issued	AUTM (2019)	5.55	5.55 ²	11.11
Gross Licensing Income	AUTM (2019)	11.11	11.11 ¹	22.22
Startups formed	AUTM (2019)	11.11	11.11 ¹	22.22
Academic works citing patents	Lens.org	5.55	5.55 ¹	11.11
STEM Bachelors Graduates	JobsEQ, IPEDS	5.55	5.55 ³	11.11
STEM Masters Graduates	JobsEQ, IPEDS	5.55	5.55 ³	11.11
Total		50	50	100

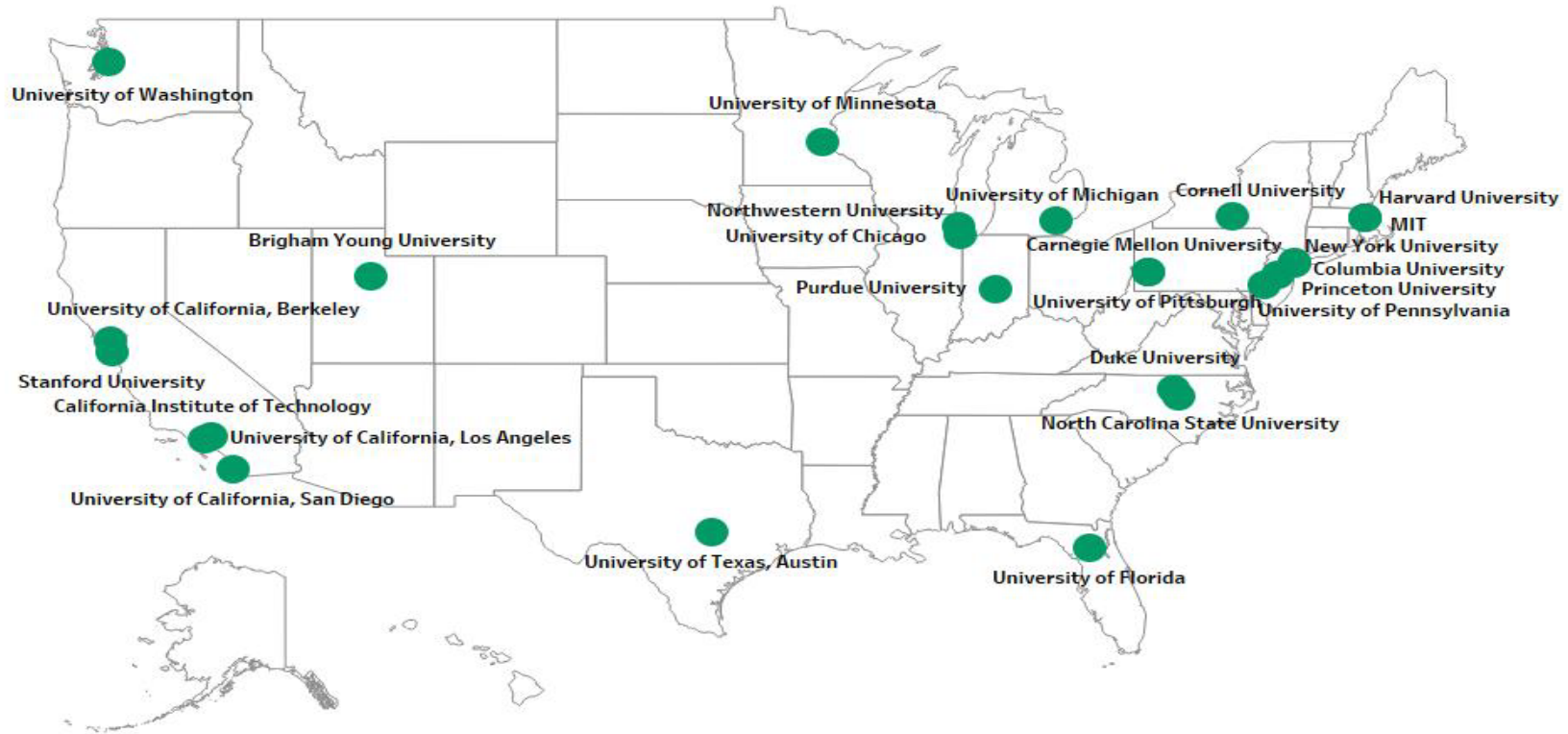
¹ Normalized by the average dollar amount of reported research expenditures (2017-2019).

² Normalized by the average number of invention disclosures received (2017-2019).

³ Normalized by the total student population for the relevant category. STEM bachelors' degree as a percentage of undergraduate students. STEM masters graduates as a percentage of all graduate students.

Top 25 universities for tech transfer & comm.

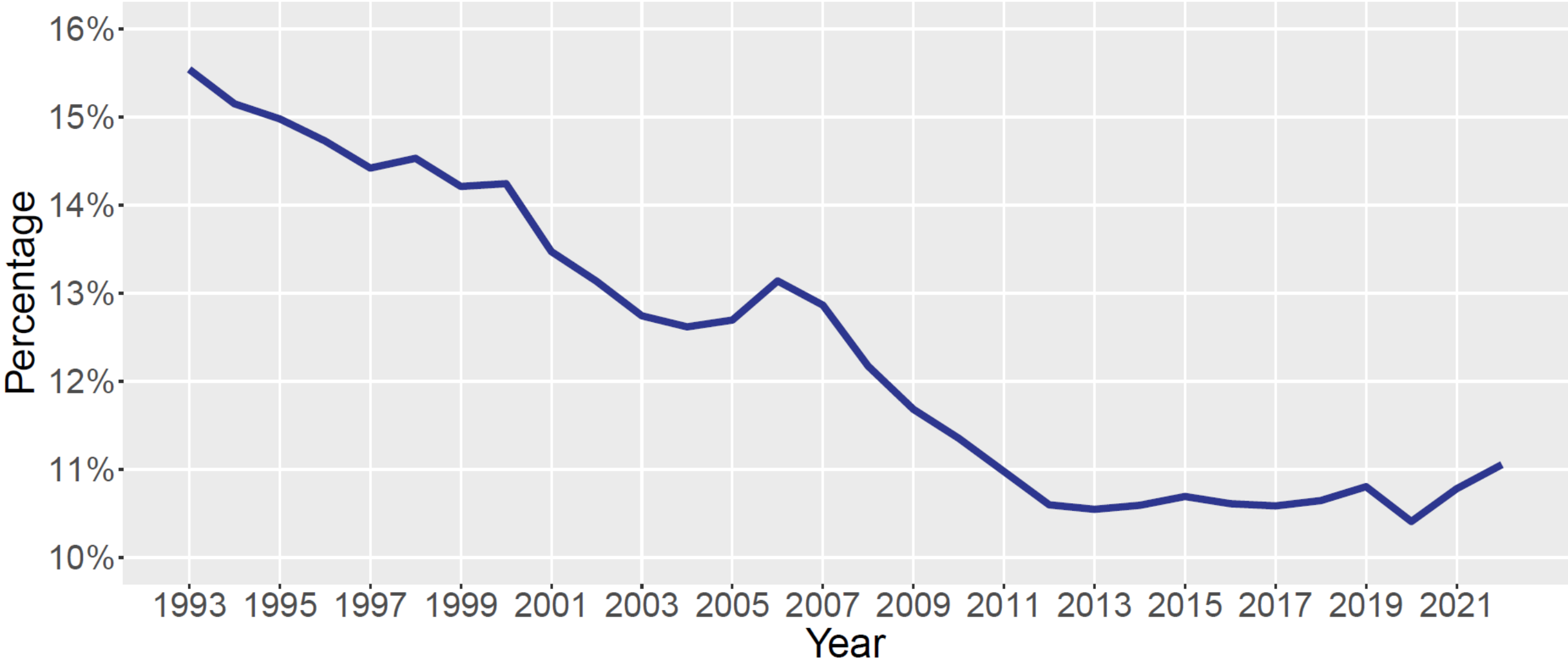
Top 25 Institutions Overall



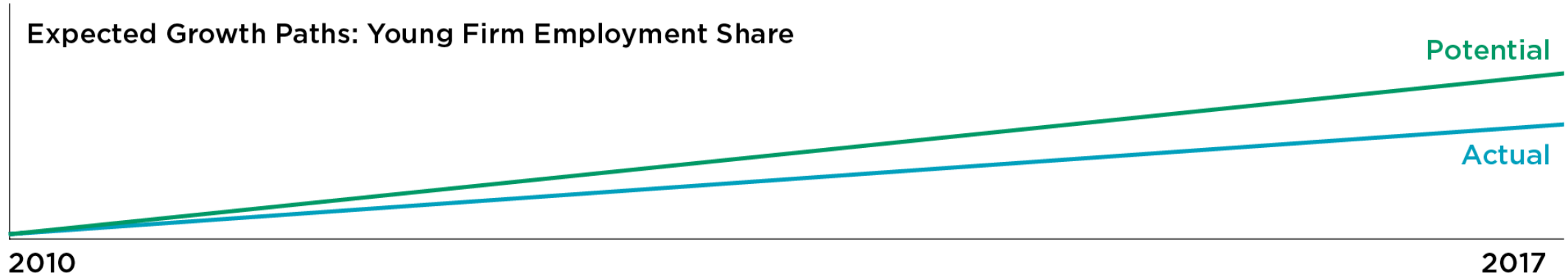
Policy considerations on university tech transfer

- Renew investment in scientific and technological innovation
- Bolster transfer out of research-based centers of excellence
- Dedicate funding to formal tech transfer offices
- Adopt best practices in tech transfer to increase efficiency
- Pool invention disclosures and patents
- Have alumni foundations invest in venture capital pools
- Encourage collection of more data on downstream activity (jobs, wages, etc.)

U.S. Young Firm Employment Share from 1993 to 2022



Impact of young firm employment share on future employment growth



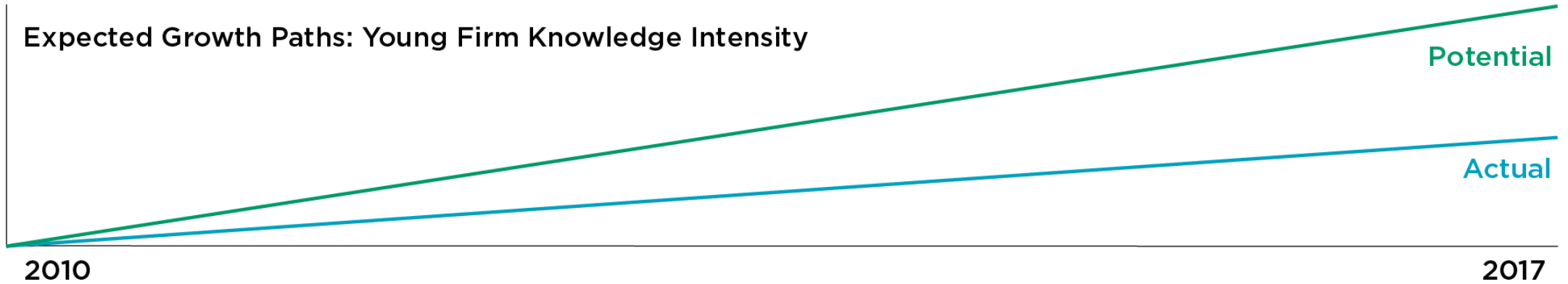
Young Firm Employment Share: Actual



Young Firm Employment Share: 10 percentage point increase



Impact of young firm knowledge intensity on future employment growth



Young Firm Employment Share: Actual

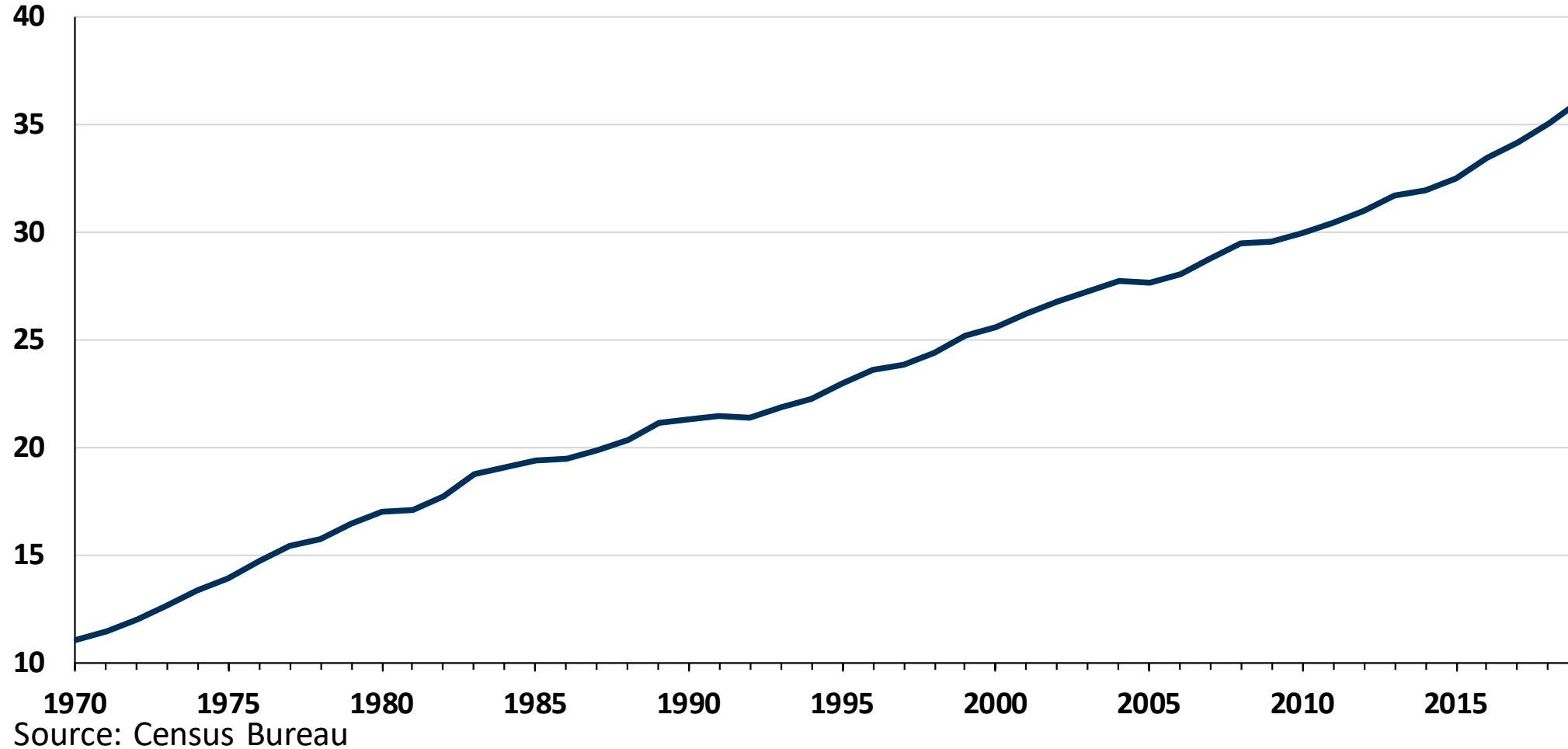


Young Firm Employment Share: 10 percentage point increase



Human capital investment key to growth

Percent of U.S. 25 and Older Population with a Bachelor's Degree or Higher

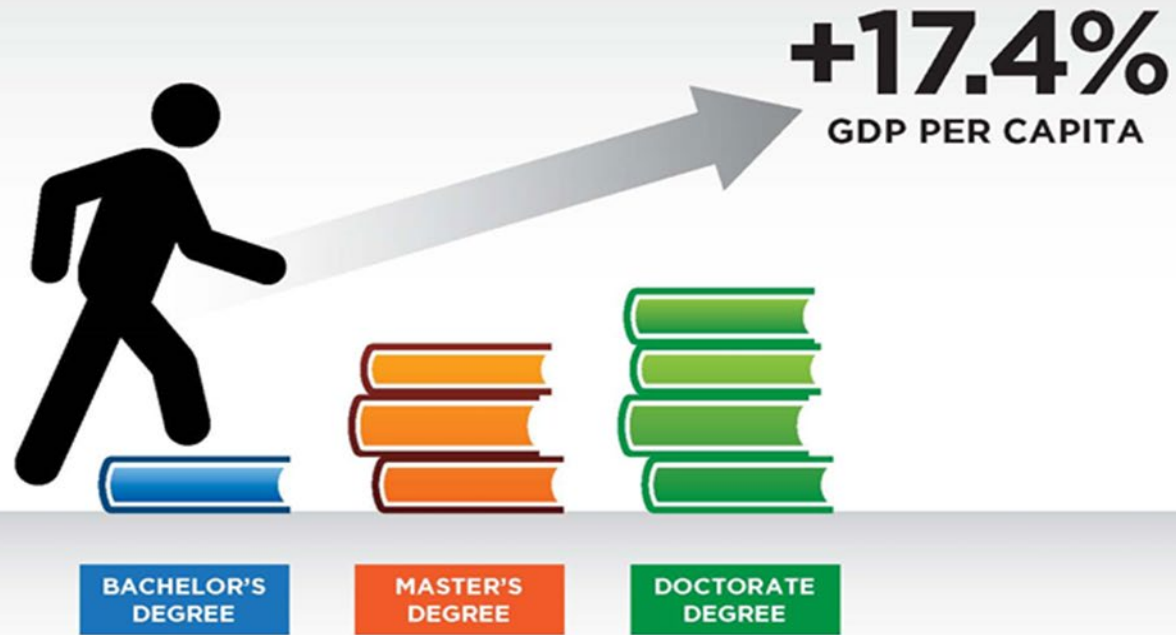


Heartland of Talent: Top 20 Large Metros for College Grads, 2019

Rank	Metro	Share of College Grads
1	San Jose-Sunnyvale-Santa Clara, CA	52.7%
2	Washington-Arlington-Alexandria, DC-VA-MD-WV	51.4%
3	San Francisco-Oakland-Berkeley, CA	51.4%
4	Boston-Cambridge-Newton, MA-NH	49.3%
5	Raleigh-Cary, NC	48.0%
6	Austin-Round Rock-Georgetown, TX	46.2%
7	Denver-Aurora-Lakewood, CO	45.8%
8	Seattle-Tacoma-Bellevue, WA	44.1%
9	Minneapolis-St. Paul-Bloomington, MN-WI	43.2%
10	Baltimore-Columbia-Towson, MD	41.9%
11	New York-Newark-Jersey City, NY-NJ-PA	41.8%
12	Portland-Vancouver-Hillsboro, OR-WA	40.3%
13	Atlanta-Sandy Springs-Alpharetta, GA	39.9%
14	San Diego-Chula Vista-Carlsbad, CA	39.9%
15	Hartford-East Hartford-Middletown, CT	39.7%
16	Chicago-Naperville-Elgin, IL-IN-WI	39.2%
17	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	39.0%
18	Nashville-Davidson--Murfreesboro--Franklin, TN	38.5%
19	Columbus, OH	37.9%
20	Kansas City, MO-KS	37.7%
	U.S.	33.1%

Top 20 Large Metros for College Grads Growth, 2010-2019

Rank	Metro	Percentage Point Growth
1	Nashville-Davidson--Murfreesboro--Franklin, TN	8.8%
2	San Francisco-Oakland-Berkeley, CA	8.1%
3	Denver-Aurora-Lakewood, CO	7.6%
4	Salt Lake City, UT	7.5%
5	Portland-Vancouver-Hillsboro, OR-WA	7.4%
6	San Jose-Sunnyvale-Santa Clara, CA	7.3%
7	Grand Rapids-Kentwood, MI	7.2%
8	Seattle-Tacoma-Bellevue, WA	7.1%
9	Raleigh-Cary, NC	6.9%
10	Pittsburgh, PA	6.8%
11	Baltimore-Columbia-Towson, MD	6.8%
12	Austin-Round Rock-Georgetown, TX	6.8%
13	Boston-Cambridge-Newton, MA-NH	6.3%
14	Cincinnati, OH-KY-IN	6.2%
15	San Diego-Chula Vista-Carlsbad, CA	6.2%
16	Birmingham-Hoover, AL	6.0%
17	New York-Newark-Jersey City, NY-NJ-PA	5.9%
18	St. Louis, MO-IL	5.9%
19	Richmond, VA	5.9%
20	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	5.8%
	U.S.	4.9%

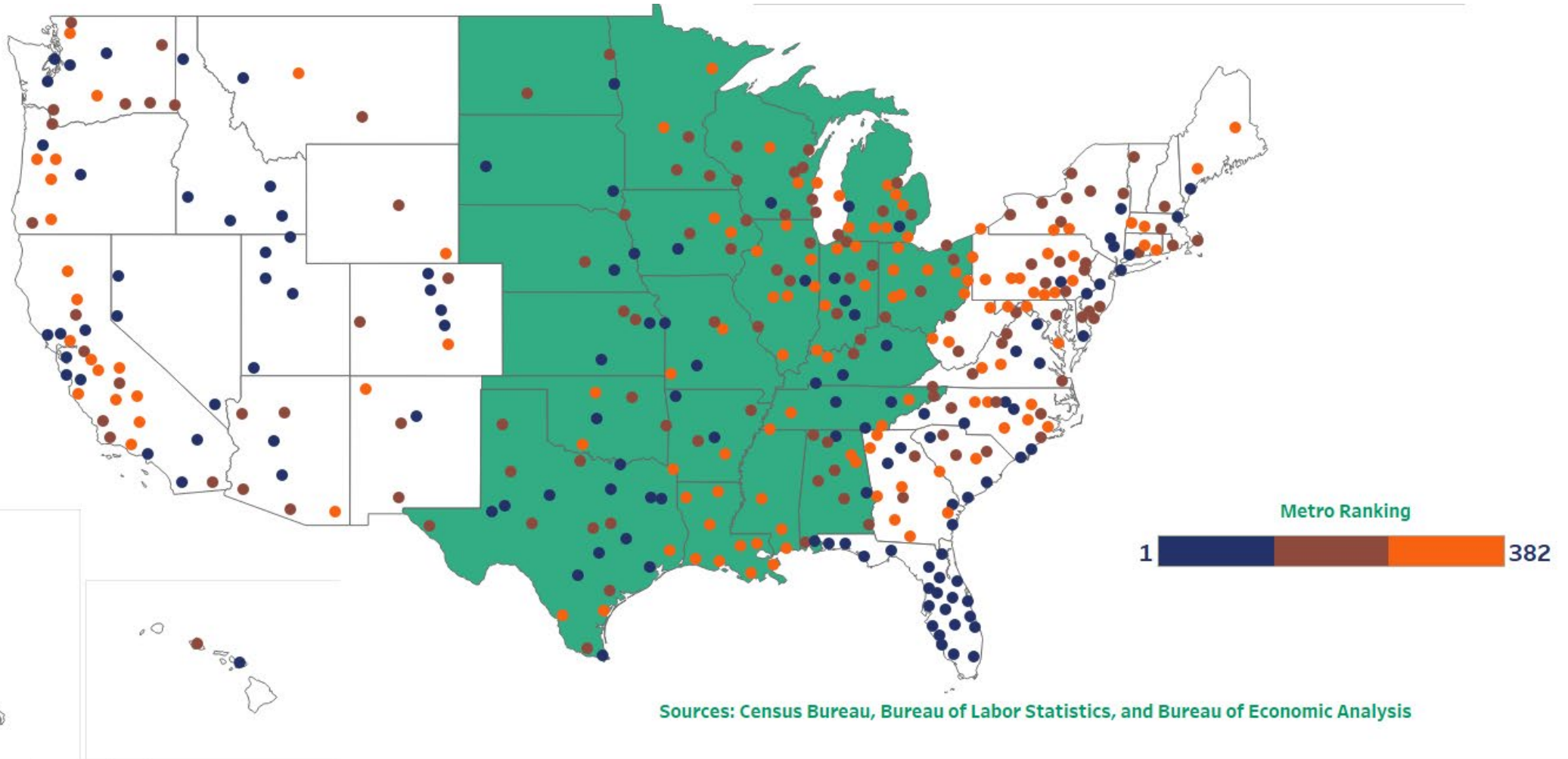


Add one year of college to the region's workforce, and GDP per capita jumps 17.4%

Most Dynamic Metros 2023 Metrics and Data Sources

Measure	Time Period	Source
Young Firm Employment Ratio	2022	Census Bureau
Young Firm Knowledge Intensity	2022	Census Bureau
Per-Capita Personal Income	2022	Bureau of Economic Analysis
Medium-Term Job Growth	2017-2022	Bureau of Labor Statistics
Short-Term Job Growth	2021-2022	Bureau of Labor Statistics
Short-Term Job Growth Momentum	Jun. 2022-Jun. 2023	Bureau of Labor Statistics
Medium-Term Average Annual Pay Growth	2017-2022	Bureau of Labor Statistics
Short-Term Average Annual Pay Growth	2021-2022	Bureau of Labor Statistics
Medium-Term GDP Growth	2017-2022	Bureau of Economic Analysis
Short-Term GDP Growth	2021-2022	Bureau of Economic Analysis

Most Dynamic Metros 2023 Map



Most Dynamic Metros 2023 Top 10 Overall Metros

Rank	Metro
1	The Villages, FL
2	Midland, TX
3	Austin-Round Rock-Georgetown, TX
4	Naples-Marco Island, FL
5	Provo-Orem, UT
6	Boulder, CO
7	St. George, UT
8	Sebastian-Vero Beach, FL
9	Nashville-Davidson--Murfreesboro--Franklin, TN
10	Coeur d'Alene, ID

Reshoring manufacturing in US



Factors important for reshoring manufacturing

- Production costs
- Federal priorities
- Available supply
- Quality
- Workforce skills

Reshoring America

"We're thrilled to be launching the Silicon Heartland in Ohio," Intel CEO Pat Gelsinger said.

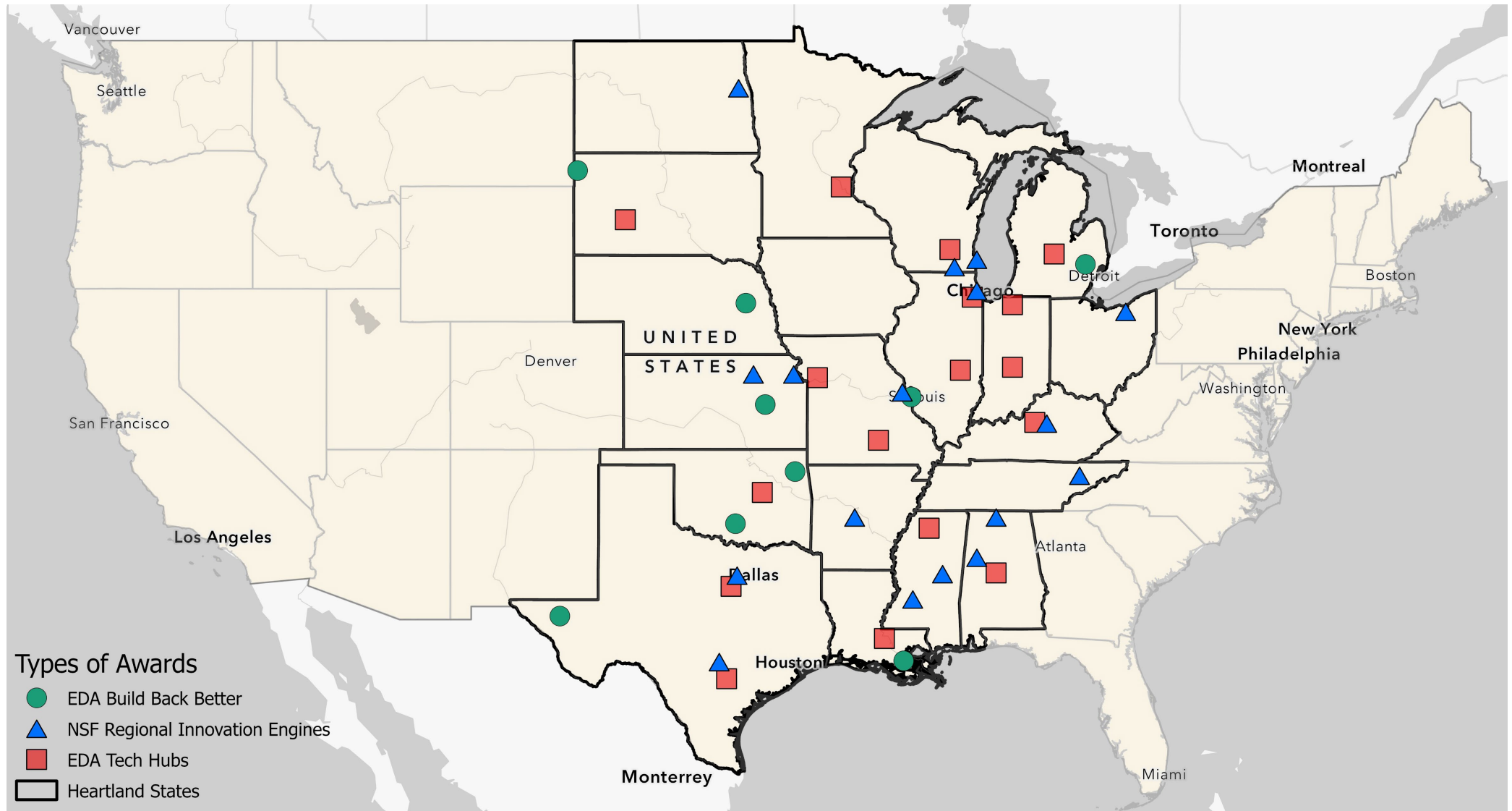


Technology

Intel's \$20 bln Ohio factory could become world's largest chip plant

By David Shepardson and Jane Lanhee Lee

Heartland's federally-funded hubs



Building capacity for placed-based development

- Community capacity
- Firm and industry capacity
- Entrepreneurial capacity
- Innovation infrastructure capacity

Implementing placed-based strategies

- Construct a regional profile
- Identify target industries for development
- Assessing a regional industry's maturity
- Building effective partnerships

Quality of place is critical economic development tool for talent attraction and retention

- Human capital is a place's most valuable factor of production
- Places lease knowledge assets
- Managers, scientists, engineers, technicians and creatives
- Universities enhance quality of place and build social capital
- Statistical evidence demonstrates artists and other creatives attract technical talent



Quality of place elements



- Art and music institutions
- Thriving restaurant and culinary scene
- Recreation and lifestyle amenities
- Health care access and quality
- Cultural and religious institutions
- Transportation mobility
- K-12 education
- Universities
- Crime rates

Mike Milken

“Social capital includes educational, cultural, religious and medical institutions and other intangibles.”



Remote work is an opportunity for more places



THANK YOU