



NIST



Manufacturing USA Network: The Innovation Hubs of the U.S.

Mather - NIST Policy Intern

Gizem Dogan

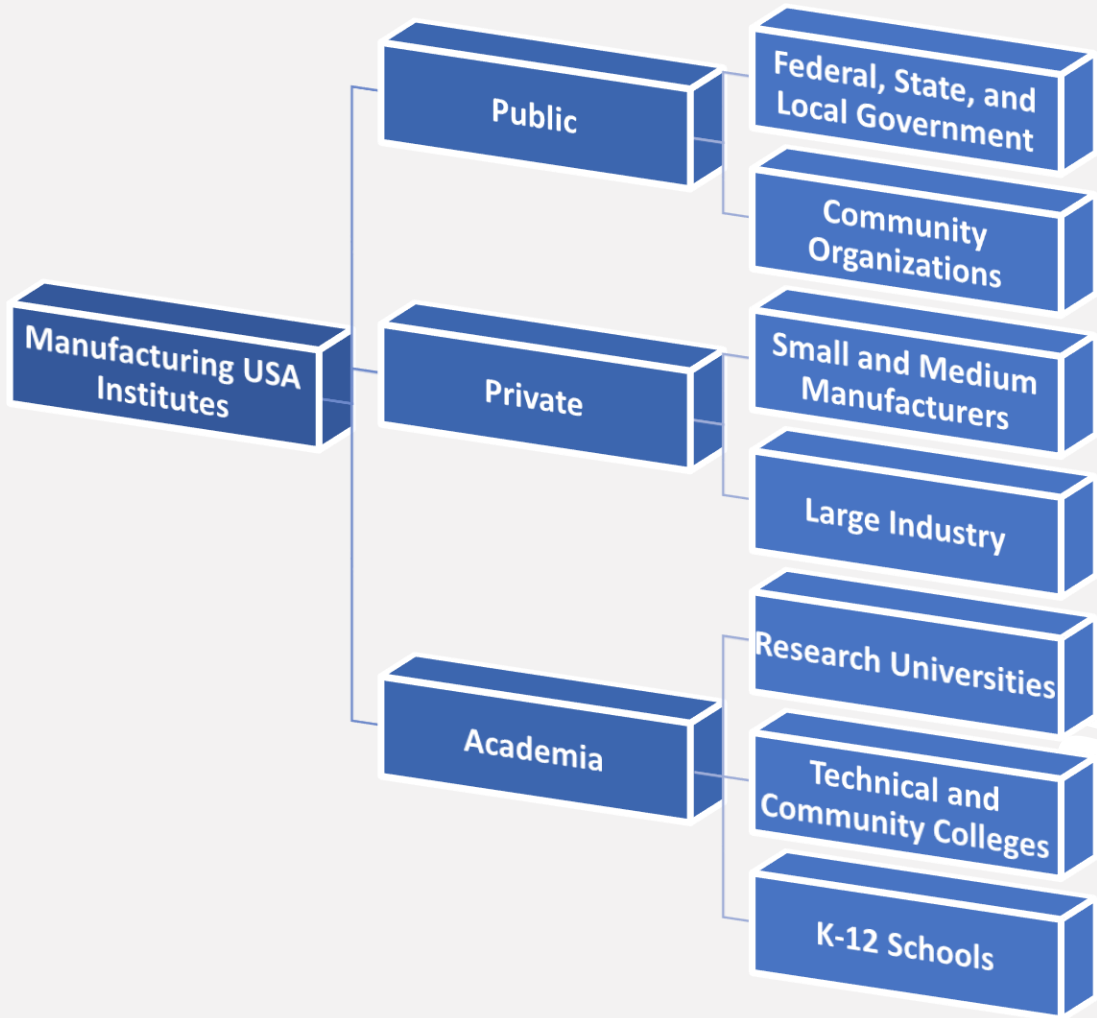
Bowdoin College 2024

Physics | Government and Legal Studies

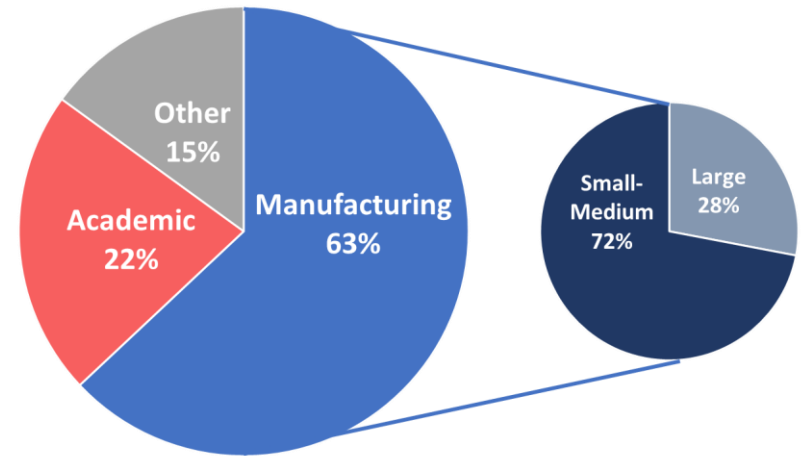


ManufacturingUSA®

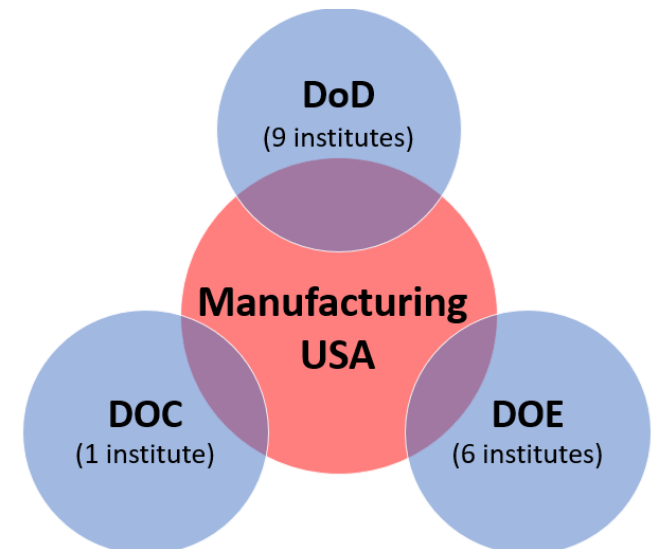
- Manufacturing USA is a network of research institutes in the United States that focuses on advancing critical manufacturing technologies through **public-private partnerships** among U.S. industry, universities, and federal government agencies.
- First authorized in 2014, it has seventeen institutes, each focused on,
 - ❖ Developing **cutting edge technologies** in areas ranging from robotics to biopharmaceuticals and photonics
 - ❖ Building a **skilled American workforce**
 - ❖ Ensuring **supply chain resiliency and sustainability**



Institute Member Organizations

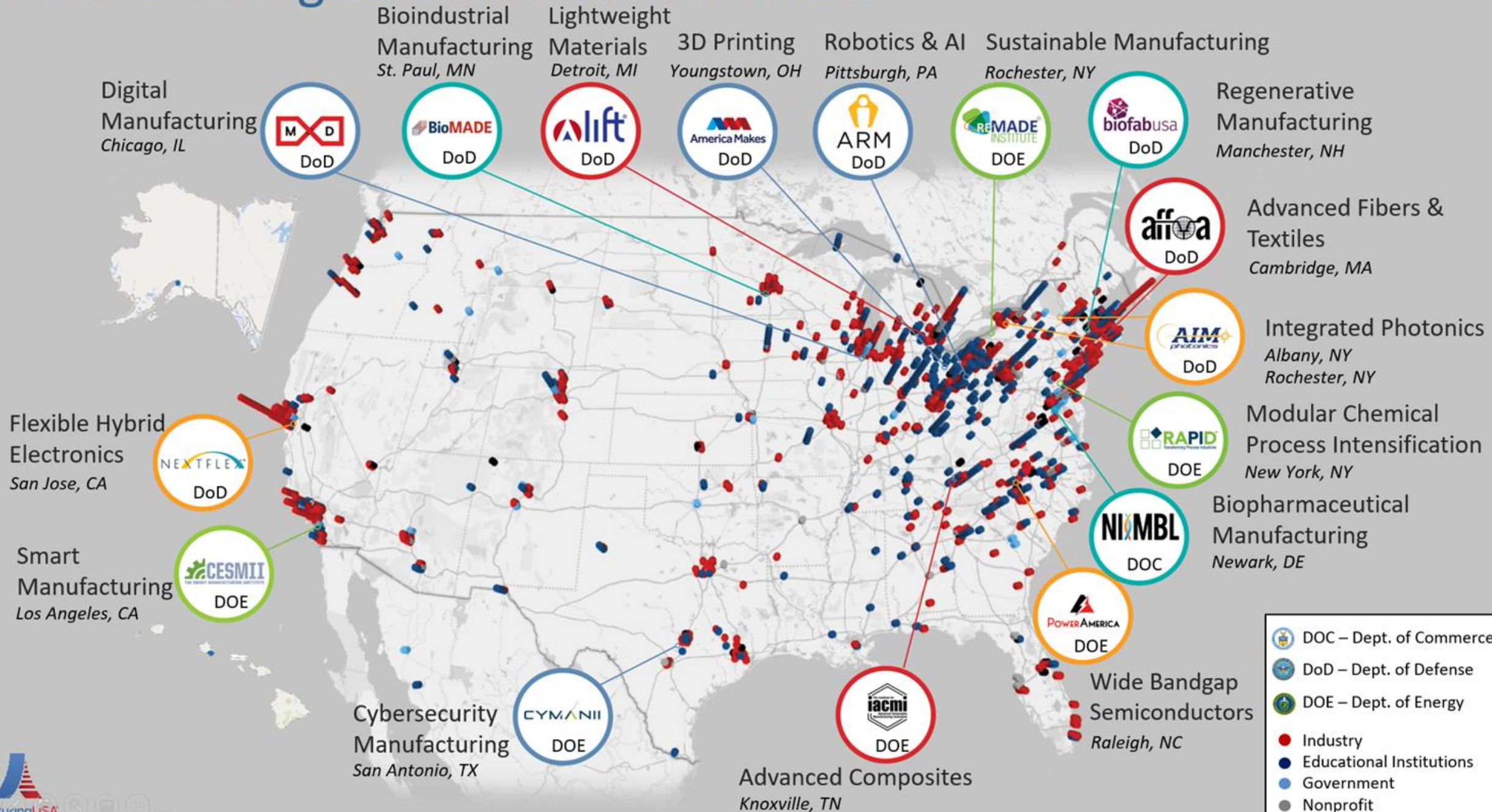


In FY 2021, the institutes had 2,320 member organizations



Manufacturing USA funding agency representation

Manufacturing USA Institute Network



PROJECT: MEMBERSHIP CHARACTERISTICS

METHODOLOGY

Collect institute membership information using publicly available data from the institute websites and/or annual reports. Make inferences on membership characteristics using excel pivot tables.

MULTI-INSTITUTE MEMBERSHIP (4 OR MORE)

MEMBER LIST 2019	INSTITUTE 2019	Count of INSTITUTE 2019
3M	AFFOA	1
	America Makes	1
	ARM	1
	IACMI	1
		4
University of Minnesota	AFFOA	1
	NIIMBL	1
	RAPID	1
	NEXTFLEX	1
		4
Siemens	America Makes	1
	ARM	1
	MxD	1
	RAPID	1
		4
DuPont	AFFOA	1
	IACMI	1
	RAPID	1
	NEXTFLEX	1
		4
Southwest Research Institute	America Makes	1
	ARM	1
	BioFAB	1
	NIIMBL	1
		4

Member	Institute	Count of Institute
Rensselaer Polytechnic Institute	BIOMADE	1
	NIIMBL	1
	RAPID	1
	ARM	1
		4
3M	AIM Photonics	1
	BIOMADE	1
	RAPID	1
	ARM	1
		4
Argonne National Laboratory	America Makes	1
	POWER AMERICA	1
	RAPID	1
	REMADE	1
		4
Southwest Research Institute	America Makes	1
	NIIMBL	1
	RAPID	1
	ARM	1
		4

Calendar Year 2019

Year	Academia	Industry	Other
2019	23	9	3
2022	30	9	7

Calendar Year 2022

MEMBERS WITH 6 OR MORE INSTITUTE MEMBERSHIPS

Calendar Year 2019

University of Massachusetts Lowell	6
Boeing	6
Carnegie Mellon University	6
Purdue University	6
Raytheon Technologies	7
Worcester Polytechnic Institute	7
General Electric Company	7
Lockheed Martin	8
Massachusetts Institute of Technology	9

Calendar Year 2022

North Carolina State University	6
Rutgers University	6
University of Tennessee, Knoxville	6
University of Massachusetts Lowell	6
University of Michigan	6
Virginia Tech	6
University of Texas at Austin	6
National Institute of Standards and Technology	6
Boeing	6
Northeastern University	6
Siemens	6
Pennsylvania State University	7
Raytheon Technologies	7
Auburn University	7
Carnegie Mellon University	7
The Ohio State University	8
Lockheed Martin	9
Purdue University	9
Worcester Polytechnic Institute	11

FINDINGS:

- ✓ Universities find it beneficial to become and stay as members of Manufacturing USA institutes

PARTICIPATION TRENDS FOR MEMBERS WITH 3 OR MORE INSTITUTE MEMBERSHIPS

COUNT OF INSTITUTE MEMBERSHIP MEMBER LIST	INSTITUTE	Year	
		2019	2022
Commonwealth Center for Advanced Manufacturing	America Makes	1	
	ARM	1	
	CESMII	1	
		3	
National Energy Technology Laboratory (NETL)	America Makes		1
	ARM		1
	RAPID		1
			3
Arconic	America Makes	1	
	ARM	1	
	CESMII	1	
		3	
Naval Nuclear Laboratory	America Makes		1
	ARM		1
	POWER		
	AMERICA		1
			3

Membership Trend	Academia	Industry	Other
Constant	14	13	3
Decrease	14	9	5
Increase	38	15	12

FINDINGS:

- ✓ Universities increase their institute membership at a higher rate than the industry and other federal stakeholders.



Next steps

- Performance review is important for accountability purposes since tax payer money is being spent
- Institutes benefit from having a framework for membership analysis to see the reasons why they attract or lose members, as well as what kind of members those are.

Technical Drafting Assistance (TDA)

Calendar No. 445

117TH CONGRESS
2D SESSION

S. 4543

[Report No. 117-130]

To authorize appropriations for fiscal year 2023 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JULY 18, 2022

Mr. REED, from the Committee on Armed Services, reported the following original bill; which was read twice and placed on the calendar

A BILL

To authorize appropriations for fiscal year 2023 for military



(Original Signature of Member)

117TH CONGRESS
1ST SESSION

H. R. _____

To authorize the Secretary of Commerce to establish the Manufacturing Communities Support Program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. CICILLINE introduced the following bill; which was referred to the Committee on _____

A BILL

To authorize the Secretary of Commerce to establish the Manufacturing Communities Support Program, and for

2023
NIIMBL
ANNUAL
MEETING



NIIMBL

NIIMBL
The National Institute for Innovation in Manufacturing
AMERICAN INNOVATION AT WORK
National Meeting 2023



**EMPOWERING AMERICA'S ADVANCED
MANUFACTURING WORKFORCE**



HI-TEC 2023 IN ATLANTA



Thanks to Dr. John Mather for being the visionary behind the creation of this internship position!

And Many THANKS to

- Brad Conrad, Kayla Stephens, Mikayla Cleaver from SPS**
- My mentors Robert Rudnitsky and Lisa Fronczek at NIST,**
- The entire NIST administrative team**

for giving me this opportunity and supporting me throughout my time at the National Institute of Standards and Technology!

I WELCOME ALL QUESTIONS NOW!

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