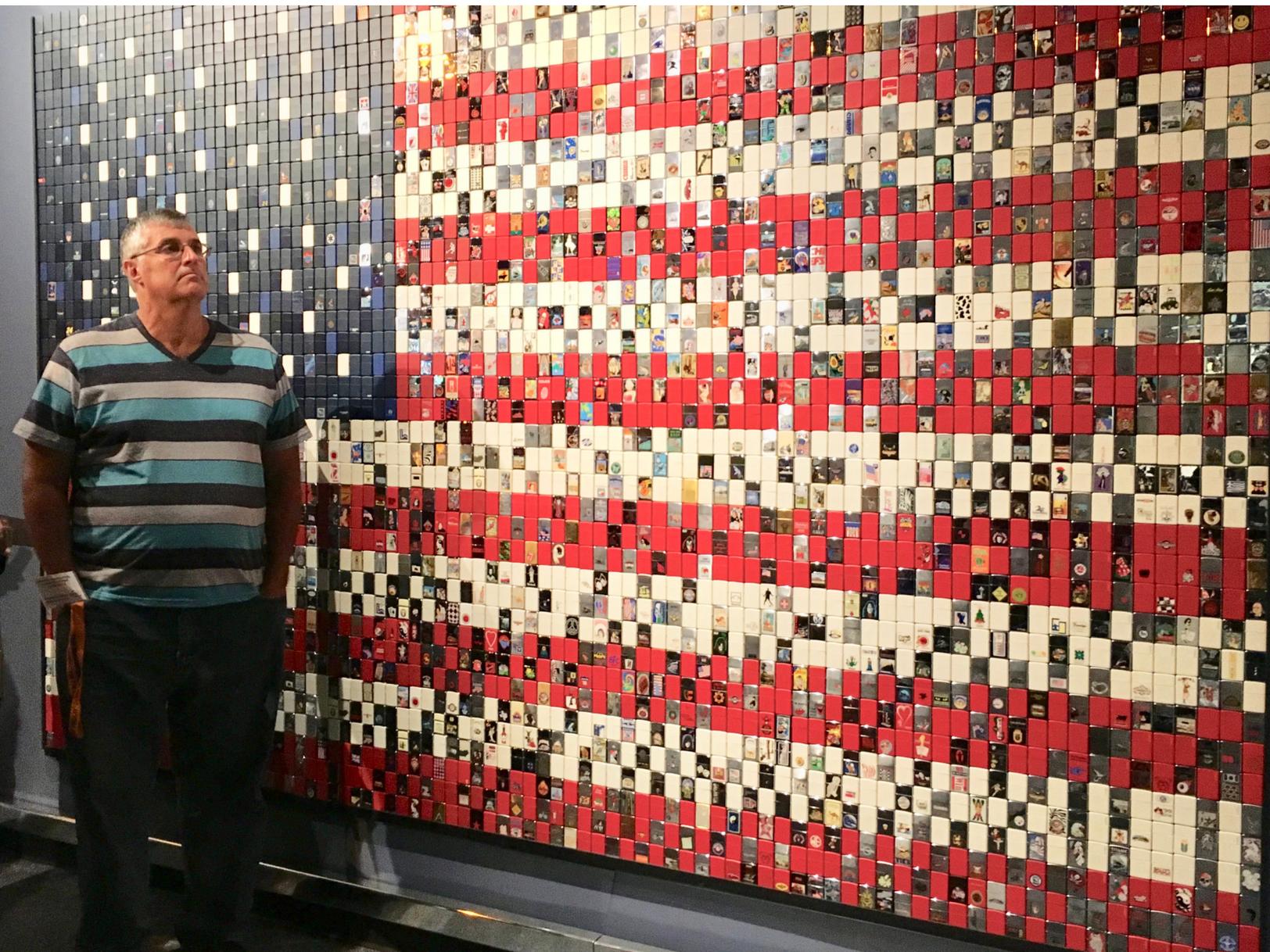




Dream It. Do It. WNY

Cattaraugus County

Summer of 2017



Retired Army Lt. Col. Frank Martin, Social Studies/Business Teacher, Allegany-Limestone Zippo /Case Museum, Bradford, PA



**Dream It. Do It. WNY
Cattaraugus County
had
one
busy
summer!**

July - August DIDI Summer Interns

July 10 - 13 DIDI Messy Science - JCC Kids' College

July 17 - 20 DIDI 3D - JCC Kids' College

July 17 - 27 Olean Summer STAR Program

July 24 - 27 Advanced Summer Teacher STEM Experience

July 31 - August 3 DIDI 3D - JCC Kids' College

July 31 - August 3 Summer Teacher STEM Experience

August 21 - 24 Eaton Young Manufacturers Academy



Thank you for the continued support of the following
MAST members and supporters of Dream It. Do It. WNY

Senator Cathy Young

Dresser-Rand
SolEpoxy
CUTCO
OSM
Pierce Steel
Total Piping Solutions

Napoleon Engineering Services
EATON
Scott Rotary Seals
Mazza Mechanical Services
National Grid
Keystone Tool & Die

CA-BOCES

St. Bonaventure University

Jamestown Community College, MTI



Dream It. Do It. Summer Teacher STEM Experience

Thank you to all teachers, schools, manufacturers, colleges, universities and companies involved in this year's Teacher Week X 2. Presidents, CEOs and manufacturers took time out of their day to give informative and inspirational tours. A big thanks for lunch each day, provided by Mazza, CUTCO, Zippo, Moog, Dresser-Rand, SolEpoxy and Napoleon Engineering Services.

The Advanced Summer Teacher STEM Experience went far beyond expectations this year! A group of eighteen teachers, all having participated for the past 2, 3 and, yes, 4 years, designed this year's exciting program. Schools represented were Olean, Allegany-Limestone, Portville, Cattaraugus-Little Valley, Fillmore and Gowanda. Teachers toured CUTCO, Zippo, Case, and Moog and enjoyed presentations by St. Bonaventure's Cyber Security Program, Boundless Connections and the Made in America Store. The best part of the week was hearing the personal stories of engineers, machinists, drafters, programmers, apprentices and more - stories everyone looks forward to sharing with their students in the fall. The teachers are already planning next year's program! It should be a great week!



Week Two: Summer Teacher STEM Experience. Eighteen teachers from Salamanca, Olean, Franklinville, Cattaraugus-Little Valley, Bolivar-Richburg and Cuba-Rushford came together to tour area manufacturers - some for the first time. It was quite an eye-opener!! This inquisitive group of teachers came with many questions and concerns for their students' future here in the Southern Tier. They left motivated and inspired by the tours and presentations given by CUTCO, Dresser-Rand, Napoleon Engineering, Fitzpatrick & Weller, Mazza, Pierce, Elantas, Eaton, Scott Rotary Seals, SolEpoxy, Boundless Connections, SBU and JCC MTI. Week Two also came up with some great ideas for future events and programs for Dream It. Do It. We're going to be busy in the fall!!



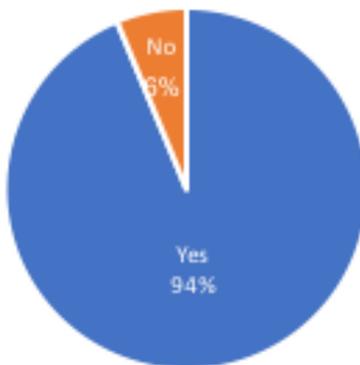
Teachers were asked the following questions, before and after the **Advanced Summer Teacher STEM Experience:**

NB: This group of teachers has been involved in a number of DIDI programs.

Would you encourage your students to pursue a career in manufacturing?



Before

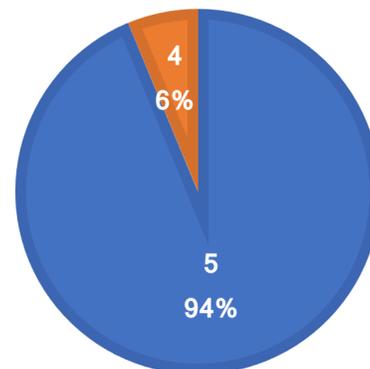
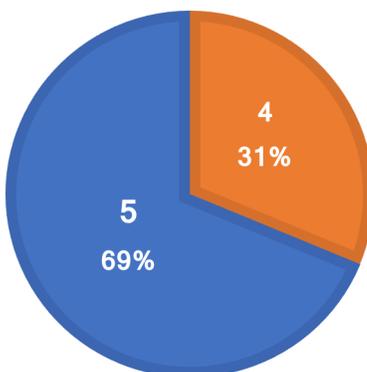


After



How important is manufacturing to our economy?

Rating 1 (low) - 5 (high)



Manufacturing is:

Boring and dangerous.

Exciting and on the rise!

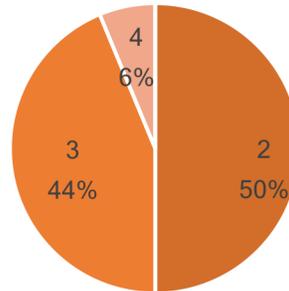


Before and after the Advanced Summer Teacher STEM Experience, teachers were asked to rate their knowledge, on a scale of 1 - 5, on the following topics:

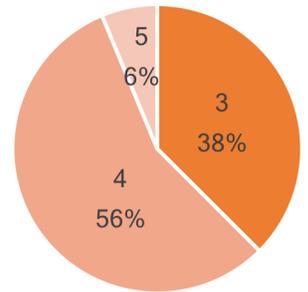
CYBERSECURITY



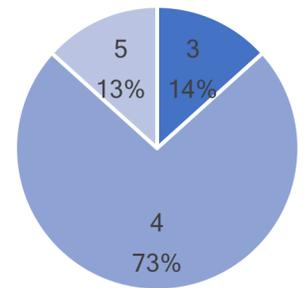
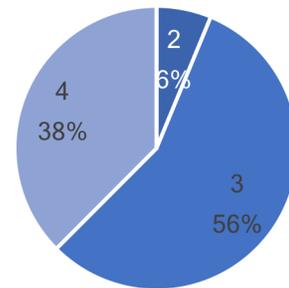
BEFORE



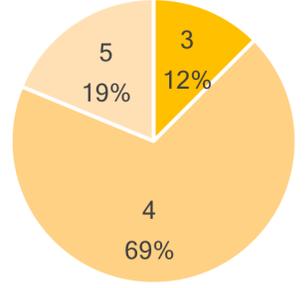
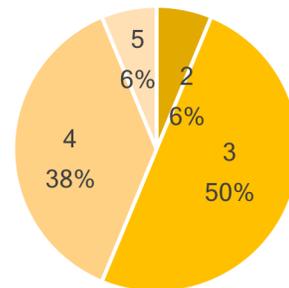
AFTER



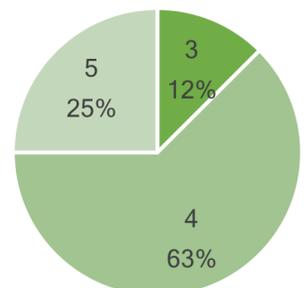
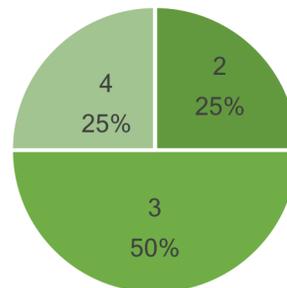
MANUFACTURING



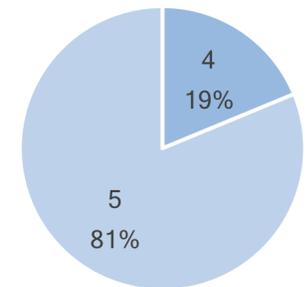
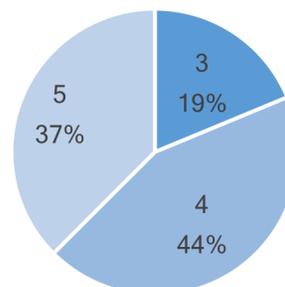
TECHNOLOGY



HISTORY OF MANUFACTURING



THE IMPACT OF MANUFACTURING ON OUR COMMUNITY

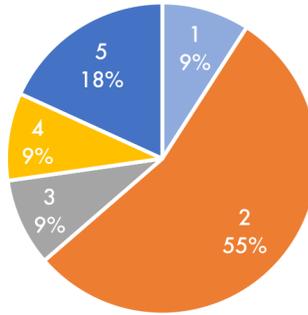


Teachers were asked the following questions, before and after the **Summer Teacher STEM Experience July 31 - August 1, 2017**

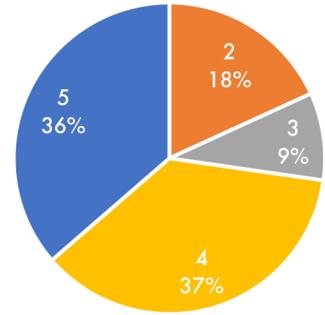
How much do you know about manufacturing?

Rating 1 (low) - 5 (high)

BEFORE

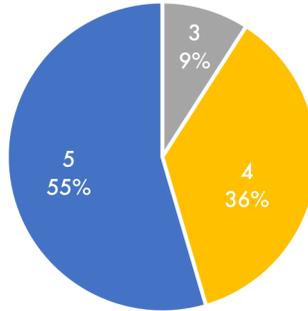


AFTER

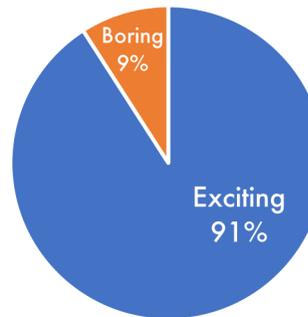


How important is manufacturing to our economy?

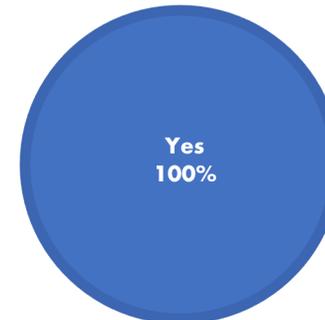
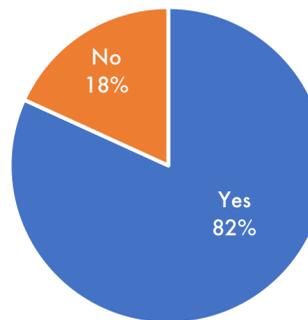
Rating 1 (low) - 5 (high)



Manufacturing is:
Boring and dangerous
Exciting and on the rise!



Would you encourage your students to pursue a career in manufacturing?





Comments from teachers and administrators:

⚙️ The most useful part of the experience was talking to company representatives about the need for people willing to work jobs in manufacturing and the (soft) skills required to be successful in those jobs. Knowing how many good paying jobs are out there is something I will be able to take back to my students and share with them.

⚙️ I enjoyed being able to physically see what is going on and interacting with people that worked at various places, to better know what skills are needed.

⚙️ I will take back the information about the shortage of skilled trade jobs, the types of skills required for these jobs, the great pay these jobs provide with limited education, and a general mindset of greater appreciation for American manufacturing.

⚙️ It was most valuable, learning about the importance of paying attention to detail, having a good work ethic, and working well with others. Also that many places will be hiring soon and looking for quality.

⚙️ I enjoyed year one for me last year, year two was even better. I have students that I have to help see their futures in manufacturing fields they can be very successful in. An aging workforce needs young people to ready themselves to replace them. Thanks for a great week!!

⚙️ Quite amazing. I never knew that torpedo nose cones, bearings for space rockets, and most of the nation's lightning arrestors were all made in little Olean, NY! Keep up the great work, DIDI !

⚙️ Thank you for the opportunity to see what is manufactured locally. I had my eyes opened to how important this small community really is!

⚙️ Looking forward to doing this again next year!



Suggestions:

⚙️ We need more time to discuss how management operates and how they lead in places in our area. I was highly impressed on how workers were treated and how management and hourly are one. I wish all places were like this.

⚙️ Perhaps a workshop for guidance counselors and/or administrators showing that there are jobs out there in manufacturing. Stress the importance of manufacturing certificates and need for welders and other skilled trades. Also stress the importance of Computer Science in the STEM curriculum and the Computational thinking since ALL careers work with computers.

⚙️ Help to get the message out that one size does not fit ALL students. Only if parents complain to politicians will this change. Maybe a post card writing campaign for parents to let politicians know that one size does not fit all. We need social activism if we want the world to change for the good.

⚙️ If you could set up employers to visit our schools, that would be great.



Olean City Schools Summer STAR Program

Lego Mindstorms Robotics

Once again, Dream It. Do. It. participated in this year's Olean Summer STAR Program. Eight summer interns from SolEpoxy, Dresser-Rand and Eaton worked with the Lego Robotics class, mentoring the young scientists, focusing on problem solving and trouble shooting. The young interns gave a brief presentation on their pathway from high school to their present engineering internship. More than half of the interns were women, which will hopefully inspire more girls to pursue a career in manufacturing!

The Big 5



Thank you to:

Wesley Senn
Christian Proctor
Dresser-Rand

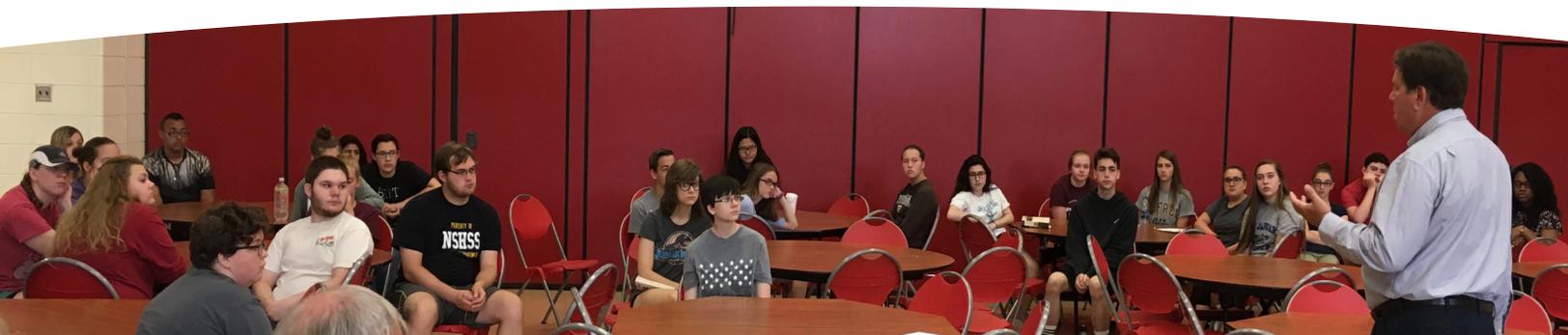
Megan Stelpflug
Bailey White
Eaton CPSD

Julie Mulryan
Kaleigh Hunt
Michael Zhu
Elise Griffiths
SolEpoxy



The Big 5

David Koebelin, Director of HR at CUTCO, gave his annual "BIG 5" presentation, emphasizing the importance of soft skills at school and eventually in the workplace. Students enjoyed Mr. Koebelin's personal stories of his climb to success as well as some valuable advice for a resume, job search, social media and more. Stay tuned for more talks by Mr. Koebelin!



JCC + DIDI = FUN!!

Dream It. Do It. Messy Science Week was a great success!! Phil Farris of SolEpoxy put together an exciting, and messy, week of science experiments for children ages 6 - 10 at the JCC Kids College in Olean, NY. Assisting Phil were DIDI Interns Allison Forness and James Daley, who worked daily with the young scientists, doing messy chemistry experiments and eventually creating a cool lava lamp. Great week! Thank you SolEpoxy!

⚙️ DIDI Messy Science was sponsored by supporters of Dream It. Do It.



DIDI 3D Another great two weeks at JCC Olean Kids' College. Students learned about 3D printing and design using TinkerCad, led by Ryan Mikolajczyk and Ben Martel. DIDI Intern James Daley and our DIDI 3D Ambassador, Byron Ring, assisted during both weeks. The young programmers enjoyed the process of designing, programming, creating and sharing their 3D project. Thank you to all involved!

⚙️ Both DIDI 3D classes were sponsored by supporters of Dream It. Do It.



DIDI Summer Interns

Dream It. Do It. started a new program this summer, employing three summer interns.

James Daley, a Junior at Portville High School, helped to design exciting 3D projects, assisted with Messy Science and DIDI 3D and is currently working on a new program for middle school students at Portville Central School. Exciting!

Working with the DIDI organization has been a valuable experience for me. As a high school student it really helps me narrow down a career in the STEM field. What's really an eye-opener is the number of companies and businesses that work in different STEM fields in this area. Overall, the DIDI organization offered me amazing opportunities that will benefit my future greatly! James Daley

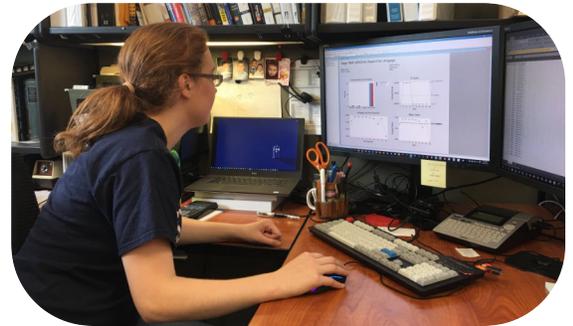
Brooke Gronemeier, a graduate of Olean High and our first DIDI 500 Student Ambassador, is heading to University of Dayton this fall to study Mechanical Engineering. Brooke started out working on our DIDI brochures and Girls in Manufacturing Program but later started working with NES on a statistics project with Jeremy Martin. Perfect!

I had an amazing experience this summer! I was able to learn a lot about the local manufacturers in my area as well as different tasks and skills engineers use on a daily basis. This was a very unique, real world experience that I'm very grateful to have had. Brooke Gronemeier

Ally Forness (otherwise known as Professor DIDI) is a Chemical Engineering major at University of Rochester and a graduate of Allegany-Limestone. Ally helped create the Messy Science class, met with women in manufacturing in our area, participated in the Summer Teacher week and created a series of *Professor DIDI* videos for our area students. Ally did it all!! Fantastic!

This summer internship has allowed me to make numerous connections with many different local companies which not only benefited me but also hopefully DIDI, through the information I gathered. Through this, I aspire that programs for children in the area are more effective and influential in impacting their futures. Ally Forness

Thank you so much to our interns for helping with and creating new programs for our young future scientists, manufacturers and engineers! Also, thank you to our area manufacturers for giving our interns valuable experiences and connections for their exciting future in advanced manufacturing!





dream it.
DO IT.



dream it.
DO IT.



dream it.
DO IT.



Coming up!

Eaton Young Manufacturers Academy

Sixteen students have signed up for this summer's YMA. The focus will be on robotics and also include a field trip to Eaton and CUTCO, to see the robots in action. August 21-24. Stay tuned!

National Manufacturing Month - October 2017

Dream It. Do It. WNY will be working with area manufacturers, colleges and schools, providing tours and activities for local students and introducing them to possible career opportunities here in the Southern Tier.

DIDI 500 - November 18th, 2017

Join us at St. Bonaventure University for the 7th annual DIDI 500, a rubber band powered car race.
Design It! Build It! Test It! Race It! Sell It!
Manufacturing Institute, D.C. Best Practice

Thank You

Thank you to the following manufacturers for making this a great summer for our community:

Dresser-Rand, Napoleon Engineering Services, SolEpoxy, CUTCO, Eaton CPSD, Scott Rotary Seals, Elantas, Mazza Mechanical Services, Pierce Steel, OSM, Keystone Tool & Die, Total Piping Solutions, Fitzpatrick & Weller, Zippo, Case, Moog, Made in America Store, Boundless Connections, St. Bonaventure University, CA-BOCES, Jamestown Community College, MTI.

Interested in any upcoming events? Please contact Evelyn Sabina, esabina1@gmail.com

