TMA EDUCATION FOUNDATION: FOCUS ON THE FUTURE OF MANUFACTURING
Founded in 1925, the Technology & Manufacturing Association (TMA) represents and supports manufacturers in the Chicago metropolitan area and surrounding counties in northern Illinois, northern Indiana, and southern Wisconsin. TMA has almost 1,000 members representing over 32,000 employees and nearly 26 million square feet of manufacturing plant.

TMA is governed by a Board of Directors, composed of executives from member firms. A full-time professional staff works closely with the Board, its committees and trust.
message from the president

TMA Members & Friends,

Just over 29 years ago, a small group of TMA members had a vision. They wanted to create a foundation to support training and education in the skills critical to manufacturing. These were the days of the “rust belt” Midwest, and the emerging narrative of the “service-based” U.S. employment future. These members faced declining public school support of the manual arts, parental concern about their children’s future careers, and the rise in “everyone needs to go to college” movement.

It must have taken courage to divide up the list of TMA members and call on them to pledge to fund the new TMA Education Foundation! Their courage and commitment has allowed 25 years of positive engagement with high schools, colleges, and other educational programs. The resources they established also helped to fund the founding of NIMS (the National Institute of Metal Working Standards), and the establishment of TMA’s own state of the art “hands-on” training center in Schaumburg.

As President of TMA, I am often guided by the visionary past of this organization. The TMA Education Foundation today is on the front lines supporting efforts to address the critical skills gap by encouraging high schools to reestablish, upgrade, and improve their manufacturing education programs. In this issue and in a future report to membership we will highlight the ongoing work of the Foundation and share its impact.

I have observed before that the reason TMA is so often invited to collaborate with others is our reputation for getting things done and putting our money and effort where our mouth is. The TMA Education Foundation is a clear example of that kind of positive action. We all owe thanks to the Foundation’s founders, to the generous donors, and to the dedicated Foundation Boards that have carried on this mission.

Steve Rauschenberger
There’s good news and bad news in the Institute for Supply Management’s (ISM) April 2018 report on manufacturing.

The good news: “Business is off the charts. This is causing many collateral issues: a tightening supply chain market and longer lead times. Subcontractors are trading capacity up, leading to a bidding war for the marginal capacity,” a transportation equipment provider reported.

Then the bad news: “Labor remains tight and getting tighter.” Indeed. A few days after the ISM released its latest Manufacturing Report on Business, the Bureau of Labor Statistics said the nation’s unemployment had reached its lowest level since 2000: 3.9%.

Manufacturing employment had increased by 24,000 in April 2018 – bringing the total up to 245,000 hired into the industry over the past 12 months.

While business for many manufacturers is “off the charts,” the inability to find skilled workers could be starting to slow what many hoped could be a unparalleled manufacturing revival in America.

“Production expansion continues; however, the index fell below 60 for the first time in 10 months. Labor constraints and supply chain disruptions continue to prevent or limit maximum production potential,” Timothy R. Fiore, Chair of ISM’s manufacturing Business Survey Committee, said in the group’s April report.

Labor shortages are limiting production potential? The opportunities are plenty for manufacturing to grow in the current environment – even before the Baby Boomer retirement crisis hits its high mark.

“Employment expansion continues at slower rates due to companies struggling to hire skilled workers. Many respondents continue to see the labor market as a constraint to their production and their suppliers’ production,” ISM Chair Fiore said in April’s report.

A SKILLED LABOR CRISIS

Chicago area manufacturers foresaw the labor crisis years ago. They warned if the perception of manufacturing careers didn’t change and more quality technology training wasn’t offered, American manufacturing growth would be limited.

In 1987, the then-Tooling & Manufacturing Association established a 501(c)3 Education Foundation to address the issue. The purpose of the charitable organization was to:

1. Expand the pool of qualified entry-level tooling, machining, and manufacturing career candidates available to Chicago area companies;
2. Improve the image of precision metalworking and manufacturing careers;
3. Recruit talented men and women for challenging metalworking and manufacturing careers in the metropolitan Chicago area;
4. Promote and direct the establishment of a tooling, machining, and manufacturing technology training center available to students and employees in the Chicago area;
5. Reduce the barriers to training and encourage establishment of quality in-house training programs in Chicago area companies.

TMA’s Board of Directors sought to “announce in a loud voice the dawning of a new age in precision metalworking and the need for motivated, innovative intelligent young people to train for tomorrow’s careers – and the need for improved training facilities and programs in the Chicago area.”

First conceived by TMA Board Chairman Norbert Stengel, the Foundation launched a major fund-raising drive two years later, when Egon Jaeger was Board Chairman.

“It was a proud moment in my term to raise $1.3 million for the Foundation,” Jaeger recalled in a 2016 interview with TMA News Bulletin. “I had a dream in 1989 that one day TMA would have its own tech center and 25 years later, here we are...”

Jaeger’s thoughts in 2016 were exactly the same as those he shared in his 1989 inaugural address at that year’s TMA’s Annual Dinner.

“I envision a TMA training center as a facility also used as a learning center in which our plant owners demonstrate various techniques of machining,” Jaeger said. “With the Foundation as a resource, our opportunities to provide exceptional training and education – on all levels – will be endless.”
TMA TOOK ACTION

Jaeger was right. Over the past three decades, the Foundation has been key in offering countless opportunities for companies, employees and gifted students to advance and update their skills and employment potential.

In addition to assisting TMA in constructing a world-class training center, over the years, the Foundation has distributed over $1.6 Million in grants and scholarships to area high schools for vocational education programs.

TMA Education Foundation hasn’t just warned about the critical impending skills gap. It followed through on pertinent goals with priorities they set in the late 1980s to:

• Promote and direct the establishment of manufacturing technology training centers and to provide employers with in-house training program direction and assistance;
• Launch a dynamic electronic and printed media public awareness campaign to positively influence parents, educators, students, legislators, and public officials;
• Give financial assistance, through grants and scholarships, to students and vocational education teachers, and to provide industry advisors to education;
• Supply selected schools with state-of-the-art equipment and improved facilities and to donate education and career materials to guidance offices, libraries, and classrooms.

The Foundation’s efforts continue through 2018, with plans to increase assistance as high schools realize once again the career opportunities their students could pursue in manufacturing and technology.

FOUNDATION: PRESENT & FUTURE

TMA Education Foundation Chairman Bob Clifford conveyed the need for manufacturing and technology training to be emphasized at the high school level when he visited the Homewood-Flossmoor High School’s applied education department in April. Clifford presented the school with a TMA Education Foundation check for $32,000 to purchase a second HAAS Mini Mill.

Clifford, who oversees Acme Manufacturing in Elk Grove Village, told the shop instructors, “As a manufacturer, I can attest – and please pass this onto your students – the skilled labor shortage out there is real. Our company right now has 25 skilled labor openings. We have 180 people in our shop. The jobs are out there. If you have kids that aren’t believing that, there are lots and lots of opportunities out there, and they’re going unfulfilled every single day.”

Clifford emphasized the skills their students learn with the TMA-subsidized machinery can set into action a rewarding career path.

Besides the $32,000 presented to Homewood Flossmoor High School, the Foundation has approved grants for other schools, totaling nearly $150,000 this year.

“The Foundation is considering more grant requests, and we could be announcing further gifts in the months to come,” said Leigh Coglianese of TMA’s Training & Education Department.

TMA’s Education Foundation has been doing what they can to promote manufacturing careers since 1987, but they’re limited as to what they can do to fill the skills gap only by the funds TMA members generously donate to the cause.

At a time when the industry’s production possibilities are exceeding what available workforce allows, the urgency hasn’t been greater.

For more information about the TMA Education Foundation and how to increase their impact, check out www.tmaef.org or email giving@tmaef.org.
MEASURING THE FUTURE: MADE TO MEASURE

BY FRAN EATON

Metrology -- the science of measuring -- is the centerpiece of East Dundee’s Made to Measure, a company Sven Bley founded in 2003 from a department at Bley Engineering in Elk Grove, Illinois.

Bley, a third-generation engineer, established Made to Measure as a metrology firm, but has expanded it to offer equipment such as new and rebuilt Coordinate Measuring Machines (CMM), along with certified metrology training programs.

“We’re an outsource quality control department,” Bley told TMA News Bulletin during a recent visit.

Made to Measure’s marketing specialist Shannon Gregor has been with the company for six years. Her work with social media not only is drawing attention to the firm, but establishing a unique online metrology community.

“We make sure our clients’ parts and pieces form, fit and function so when the parts are all assembled, they function correctly with precision,” she said. “It’s been fascinating to find like-minded people on the web that appreciate the type of work we do at Made to Measure.”

Clients range from the automotive to medical and aerospace industries – many of which contact Made to Measure through the company’s website. They were especially delighted to be contacted recently by Elon Musk’s Space X for assistance with a specific project.

The wide range of designs that come into Made to Measure is part of the reason Shannon says she looks forward to coming to work each day.

“There’s always something exciting to look forward to here. We get to see parts from so many companies that make things, from toilets to fry baskets. One day I came in and they were measuring watch faces,” she said.

“Rolex watch faces,” Bley added.

Made to Measure’s blog describes how another client was being challenged with producing petcock fuel valves for off-highway vehicles.

A small shut-off valve used to control the flow of liquid or gas was leaking due to improper fitting, preventing an off-road vehicle from starting properly. The clients turned to Made to Measure for help in sorting bad parts.

After working with the clients one-on-one, the Made to Measure team came up with an automated vacuum and pull test for a multitude of the non-cooperative parts, all ranging in different styles, and all with significant problems.

“Once the vacuum and pull test design was set-up and ready for the inspection, we measured 8,000 fuel valves total,” the blog says. The problem was solved.

Typically, Bley says, Made to Measure begins with a customer’s drawing of a part they want made.

“The drawing is the master,” he said. “We measure to their specs. Then we itemize the specs and produce an inspection report. If the dimensions and tolerances are good, that project is ‘out,’ and then it is double-checked. This is the last stop before production.”

Bley says unlike other manufacturers he’s spoken with, he really doesn’t have a problem finding people to join his 25-employee company. For Bley, it’s more of a challenge to find candidates with the type of personalities that enjoy metrology.

The day TMA News Bulletin visited, two of those “right-personality” employees Bley found and enlisted to work at his shop were busy constructing a computer program to evaluate the accuracy of submissions to TMA’s annual Precision Machining Competition. Both women on the project have earned impressive educational backgrounds.

“Right now, we’re creating a program to probe the TMA competition sample measurements,” Julia Fallon, with a degree in physics, explained. “We certainly hope this works and helps with the huge job of judging.”

“The TMA projects will be graded by how close they are to nominal dimensions,” Shalini Pogula, with a master’s degree in mechanical engineering, said.

Bley says his company’s unique location on the Fox River in historic East Dundee represents his own and his company’s value systems. Made to Measure is now located in a 96-year-old brick building on Main Street that once housed the Craft Metal Spinning Company. Bley carefully restored the facility as he prepared it for the advanced technologies his 21st Century business would demand.

“We value the past, but are moving into the future,” Bley said, adopting the latest technical innovations along with a mixture of young and mature talent.

Made to Measure is located at 302 Main Street in East Dundee, Illinois and on the web at www.measure911.com.
(L-R) | Shalini Pogula | Shannon Grégor | Julia Fallon | Sven Bley
MADE TO MEASURE
As the public pays more attention to the deepening skills gap crisis, and manufacturing and technology careers are encouraged by teachers and parents, high schools are seeking financial help to update and upgrade equipment in their applied education departments.

Over the past several weeks, the TMA Education Foundation has delivered three of the nine checks they plan to award in 2018.

John Hersey High School in Arlington Heights, IL requested funds for a milling and a lathe machine. TMA Education Foundation Board member Tim Doran of TriState Machinery presented $8,994 to Rich Hyde, the school’s manufacturing and engineering program coordinator.

"With our program numbers growing to almost 200 students, we see a need to offer all of our engineering classes with manufacturing in mind," Hyde said. With access to updated machinery, Hersey students will be encouraged to participate in future TMA competitions.

The Foundation also awarded $22,000 to Cary-Grove High School in Cary, Illinois.

Industrial Technology Department head Michael Manning said what the department had to offer their students has "come a long way" in the past five years.

"At the time, we had one mill collecting dust and a broken lathe in our shop. Since then, with TMA’s support ... our program has developed much stronger and more purposefully designed manufacturing program. This year, we are asking for two MSC lathes with DRO’s to match our existing MSC lathe," Manning said. "This will give us six machines."

The Foundation also awarded $32,000 to Homewood-Flossmoor High School to update their manufacturing & welding classes to buy a second HAAS Mini Mill, said instructor Bill Merchantz.

The school’s goal is to update their CNC equipment and bring on a full-time manufacturing instructor. Merchantz said Homewood-Flossmoor will be represented at the upcoming TMA Precision Machining Competition.

Thus far in 2018, the TMA Education Foundation has approved six more checks for distribution to local area high schools, totally nearly $150,000.
Meet John Martin, Director of Sales for Omega Printing, Inc., the company that prints TMA’s News Bulletin. We asked John a few “Let’s Get Acquainted” questions:

Q: What book had the most impact on you?
A: So difficult to choose one. “Getting Things Done.” It taught me to really focus on the next step in the process or project that needs to be completed no matter how small. It keeps the project moving. “2 Second Lean.” Great book and great principles. I have read it three times and I am still trying to work it into the sales process. Both books are great for business and my personal life.

Q: What’s the most interesting place you’ve visited?
A: Europe. It is amazing the thousands of years of history in Europe, compared to America’s couple hundreds of years. I especially enjoyed the beautiful, historical churches in London and France and the art museums in Paris.

Q: What is your favorite holiday?
A: The 4th of July is also my Dad’s birthday, so that has always been a special day for my family.

Q: What’s your favorite sports team?
A: My favorite team is the Chicago Bears - through good and bad.

Q: When people come to you for help, what do they usually want help with?
A: With five kids, it is usually for a ride somewhere! But usually my math skills are pretty good, so I am always helping one of them with math. I am also the electronics guy, so if something is broken, I have to fix it. Usually I just replace the battery, and it works!

Contact John at: 630.595.6344 or john.martin@omegaprinting.com
TMA BOARD MEMBER HOSTS TAX CUT RALLY

Recent federal tax reform for the most part is allowing small business owners to invest more in their companies and benefit their employees with bonuses, raises and employer-paid training.

HM Manufacturing President Nicole Wolter hosted the “Tax Cuts Work!” bus tour stop in the company’s Wauconda parking lot on May 1. Wolter, who also serves on the TMA Board of Directors, shared how her company’s employees are benefiting from recent federal tax reform.

HM Manufacturing employees are gaining bonuses, pay raises, incentive programs and TMA training as the company’s tax bills shrink, Wolter said. “The company is helped when our employees’ skills advance, and we want to invest in them,” she said.

Alfredo Ortiz, spokesman for the “Jobs Creators Network” bus tour, said the group is working for even more federal tax reform. The “Phase 2” reforms include making federal tax cuts permanent for small business owners, doubling standardized tax deductions for single and married couples, and increasing the actual percentage of business tax deductions to 23-24%.

At the same time federal tax rates are being cut and the nation’s economy is picking up as a result, Illinois is taking a different approach by hiking the state’s income tax.

State Senator Dan McConchie (R-Lake Zurich) shared his frustrations with what is happening at the state level during the ongoing spring session.

“The Illinois Senate’s focus will now turn to be on state budget – whether we’ll have one this year or not. We’re looking at a one and a half to two billion dollar deficit, even with last year’s five billion state income tax hike,” McConchie said.

US Congressmen Randy Hultgren (IL-14) and Peter Roskam (IL-06) were on hand at HM Manufacturing to celebrate how federal tax reform has benefited companies in their districts, despite Illinois’ tin ear concerning tax hikes.

“It’s tough for business owners like Nicole Wolter here at HM Manufacturing,” Congressman Hultgren said. “Wisconsin – which is so different for businesses - is only 15 to 20 miles away. It’s so frustrating.”

Hultgren said the first thing Illinois needs to do is “get their house in order” and address the “crazy pension levels that are crushing businesses.”

“They need to live within their means,” Hultgren said. “Then Illinois will once again become a beacon.”

Congressman Roskam told the crowd gathered of two different views concerning the nation’s economic status and how to correct financial challenges.

“One view says ‘If you are successful, that means you had an unfair advantage,’” Roskam said. “A different view says if a family is successful in growing their business, that’s a good thing for everyone – the business creators, the employees, their customers, their suppliers.”

Illinois is home to over 1.2 million small businesses.

“We enjoyed hosting this event,” Wolter said. “We’ll keep trying to pull Illinois in the same direction the nation is going. We aren’t ready to give up the fight.”
May’s TMA Staff of the Month is Isaac Flex, TMA’s newest addition to the Member Development Department. Isaac helps members maximize membership and develop new member relationships.

We asked Isaac the following:

Q: If you could have only one superpower, what would it be?
A: Immortality!

Q: What was your favorite TV show when growing up?
A: The Andy Griffith Show

Q: What hidden talent do you have that most people at TMA don’t know you have?
A: I can proficiently play the drums, bass, and guitar.

Q: When did you accept a dare that you later regretted?
A: During my visit to the Philippines, a local dared me to eat “Isaw” (chicken intestine on a stick) - unfortunately I got extremely ill for a week!

Q: What’s your favorite task at TMA?
A: While visiting with TMA members, I enjoy hearing and learning their unique life & business stories.

Email Isaac at iflex@tmaillinois.org or call him at: 815-508-9718.
John Augustine, Chief Investment Officer of Huntington Bank in Chicago, shared his insights about the nation’s economic and market conditions TMA’s Technology annual Economic Breakfast.

The economic trends at the global level show a rise in real GDP over the last three years, Augustine told the audience. The 2016 global real GDP growth in 2016 was +3.2%, in 2017 +3.7% and is estimated to reach +3.9% in 2018. The highest GDP Augustine reported was India’s +7.17%. The lowest reported was the United Kingdom’s +1.42% and in the middle is the US’s 2.58% GDP.

US manufacturing output is reporting at near-historical highs, Augustine, whose opinion is often sought on cable news shows, said. He showed on the following graph how US manufacturing’s output and resulting employment demands are rising to all-time highs, with durable goods at $3185.40 billion and non-durable goods at $2664.84 billion.

US manufacturing employment is nowhere near the 1970s levels, which makes the reported growth of US manufacturing all the more stunning.

Augustine’s figures also showed how important every single manufacturing job is for the nation’s businesses – and the labor quality of each position is even more crucial:

While housing remains off to a slow start in 2018, there are new worries about potential inflation and trade are affecting the US economy.

The Midwest region remain relatively strong in US business trends.

In the Chicago metropolitan area, the projected GDP is positive, as is employment numbers and median home selling price. The only thing down is unemployment – to 5.40%. However, Chicagoland’s average hourly rate is up to $29.33, higher than the US average hourly rate of $26.82.

For more insight, contact John Augustine, Chief Investment Officer at Huntington Private Bank.
Last year, Cristian Arguello won among his high school peers in Technology & Manufacturing Association’s (TMA) Precision Machining Competition. This year, he is continuing to learn and his new employer is paying for it.

It’s a path more and more high school seniors are pursuing – interesting, pertinent careers that challenge and spare them a future of paying off burdensome school debt.

“I know that most people my age don’t think about an option besides college and getting a regular degree,” Cristian said. “When Otto Engineering visited my machine shop class, they said there was a shortage of people entering the trade, and they wanted to put more to work.”

The opportunity arose after Cristian decided to take machine shop at Streamwood High School. His brother and a friend recommended a program he knew little about - the school’s Applied Education program. Learning about how parts he used every day piqued his interest in metalworking.

“Until I began understanding how parts are made, I never thought about it much. Now I look at things differently – it sure has opened my eyes to a lot of things,” he said.

Soon after Otto Engineering visited Cristian’s high school class, he went to visit Otto Engineering’s Carpentersville facility. Cristian said he was pleasantly surprised at what he found there – it wasn’t the dark, dirty shop he expected it to be.

“My first thought was that it was one of the cleanest, biggest, most organized shops I’d ever seen,” he said. When Otto offered Cristian a head start on a career and three years of paid-for classes to advance his training, he jumped on it.

Now Cristian is learning water grinding at Otto Engineering’s new acquisition Dies Plus in Itasca, after finishing his first year of studying basic math and blueprint reading at TMA’s Education Center in Schaumburg, Illinois. In three years, he could have national certification as a tool & die maker, making an above average wage with skills in high demand.

Cristian’s boss Neil Dohe says that it’s not easy to find those just starting in the industry like Cristian that have good attitudes and willingness to learn. “We’re glad Cristian joined us here at Dies Plus. He’s a quick learner and has great potential.”

Cristian was one in Streamwood High School’s machine shop class that entered TMA’s annual 2017 Precision Machining Competition. He placed first in Division 3 – Surface Gauge. It was his second year of competing.

“TMA’s competition is a fun way to show off the projects you’ve been working on all year,” Cristian said.

This year, TMA had over 240 students participant in their Precision Machining Competition on May 10th.

This year’s awards ceremony will be held at Mazak’s headquarters in Schaumburg.
Geometric Dimensioning & Tolerancing Training
Featuring Mark Foster from Applied Geometrics, Inc.
in Schaumburg, IL on Tuesday, June 12

Mark Foster has over 30 years of experience in design, quality, and GD&T. In these sessions, he shows how communicating engineering specifications ensures everyone understands the process, he explains blueprint nomenclatures and how GD&T (ASME Y14.5) IS the standard.

Enjoy lunch and networking with other professionals. Learn how to work with the COMET L3D 2 and the O-SELECT from ZEISS, as well as the PrymeFix Fixturing from PrymeTech.

Event Details
- Tuesday, June 12, 9:30am - 4pm
- Lunch provided by ZEISS at 12pm
- Chance to win ZEISS TERRA binoculars

Visit www.zeiss.com/metrology/events to learn more and to register.

Location
TMA Facility
1651 Wilkening Road
Schaumburg, IL 60173

Featured Equipment
- ZEISS COMET L3D 2 Scanner
- ZEISS O-SELECT Digital Measuring Projector
- PrymeFix Fixturing

1-800-327-9735 metrology@zeiss.com
June 14

Lunch & Tour: Haumiller Engineering
Contract manufacturers and OEMs trust Haumiller to deliver high-speed automated assembly machines for high-volume disposable products. We provide custom machinery for a range of industries, including manufacturers of medical devices, consumer products, food/beverage, electrical connectors and specialized aerosol equipment.
TIME: 11:30am - 1:30pm
COST: $35
LOCATION: South Elgin, IL

June 22

TMA Golf Outing - Bartlett Hills
Join your colleagues at TMA’s first outing of the summer at Bartlett Hills Golf Club. The outing includes: 18 hole scramble with cart; Grilled Steak and BBQ chicken lunch; Contests and watering holes; Prizes for contest winners and top 25% of golfers Reservations are limited and will be handled in the order of receipt. Early bird pricing until June 8.
TIME: 7:45am - 3:00pm
COST: $120/individual $450/foursome
LOCATION: Bartlett, IL

July 12

Lunch & Tour: Alliance Laser Sales
Alliance Specialties & Laser Sales have united efforts in order to bring their customers the best when it comes to laser technology, mold finishing, and complete in-house service. They want to work to ensure that your jobs are done right, the first time, on budget and on schedule.
TIME: 11:30am - 1:30pm
COST: $35
LOCATION: Wauconda, IL

July 17

WTMA Lunch & Tour: Ex-Cell Kaiser
Join us as the Women in TMA Committee hosts their yearly tour focused on women owned operations. Ex-Cell Kaiser is a Certified Women’s Business Enterprise, operated by Janet Kaiser. Ex-Cell manufactures high quality waste and recycling receptacles for indoor and outdoor public spaces. Along with their standard products they offer customization and private label branding options. They are a 3rd generation family-owned business, around for 85 years.
TIME: 11:30am - 1:30pm
COST: $35
LOCATION: Franklin Park, IL

August 2

Lunch & Tour: R.R. Floody Co.
R.R. Floody Company, Inc. specializes in Factory Automation and Machine Vision and has served Industrial OEM’s and End Users in Northern Illinois, Iowa and Southern Wisconsin since 1956. They are applying technology to provide their customer’s a level of integration for unsurpassed efficiency and productivity.
TIME: 11:30am - 1:30pm
COST: $35
LOCATION: Rockford, IL

October 11

Lunch & Tour: S&C Electric Company
S&C Electric Company was founded in 1911, and is a global provider of equipment and services for electric power systems. Their mission is to be the leading specialist in electric power switching, protection, and control by creating innovative solutions that are easily applied and provide the best long-term value.
TIME: 11:30am - 1:30pm
COST: $35
LOCATION: Chicago, IL

TMA Health Solutions
TMA Health Solutions offers exceptional health care benefit plans with an exclusive focus on – and unparalleled understanding of – small to mid-sized manufacturers.
To find out more, call Jessica Pierce at: 847.993.2130 | jpierce@tmaillinois.org

ADVERTISE IN THE TMA NEWS BULLETIN
For information, contact Maxine Difino at 847.825.1120 or mjd@tmaillinois.org
WORK SMART AND HARD
TRAIN WITH TMA
For more information, or to register, email:
education@tmaillinois.org