THE INDUSTRY OF HAPPY FUTURES

How the business of 'making stuff that matters' also creates thousands of happy humans who find fulfilling work, knowledge, and professional friendships in a sea of career opportunities.

KIM PHELAN, EDITOR

PHOTO: COURTESY OF CHARLOTTE PIPE

Audrie Corral

What do kids want to be when they grow up? In 2023, Gallup reported the top career choices for teens between 13 and 17 years of age were: doctor/nurse/medical (10%), teacher (8%), computer field (6%), athlete (5%), lawyer and veterinarian (tied at 4%), engineer (3%), chef (3%, musician (3%), military (3%), and mechanic (2%).

For foundries, these youthful aspirations may sound disappointing, but don't be discouraged. The metalcasting industry has a lot going for it—and the biggest task going forward is mobilizing the industry to broadcast the message about the wide range of opportunities and benefits available in metalcasting careers.

AFS regional chapters, individual foundries and related

industry suppliers, as well as universities all have boots on the ground and are actively penetrating and engaging their communities, telling the story of this essential, $50-billion cog of the North American economy. But there's still plenty of work to be done, and the more ASF members who join the industrywide campaign to educate students and attract them toward foundry careers, the more evident and effective the results will be.

However You're Wired, a Great Career is Waiting For You

Luckily, the case for choosing a career in metalcasting is an easy one to make. Millions of kids are wired with interests in science and technology, computers, training others, designing and building things, and their natural talents and abilities don't all have to be funneled into those "Top 10" well-known jobs that happen to enjoy better public visibility. The opportunities in metalcasting are every bit as gratifying—students just need to hear about them. And everyone currently working in the industry has a role to play in spreading the news about what's available.

The industry needs: chemical engineers, computer engineers, electrical engineers, safety managers, environmental engineers, accountants, quality control/X-ray/testing technicians, robotics programmers, simulation/CAD experts, mechanical engineers, metallurgists, skilled trades and equipment maintenance/repair personnel, marketing and sales people, human resources managers, and more.

Metalcasting careers pay well and the industry is absolutely critical to every facet of life—from defense, transportation, and agriculture to construction, medical, energy, and food processing, just to name a few. (Learn more at *www.afsinc.org/castings-wherever-you-are)* Metalcasting goes back at least 3,000 years and will be on the planet as long as people are; and so will its jobs. Foundries make things that matter, things their employees take pride in, and that's just scratching the surface of reasons to pursue a career in metalcasting.

Today, Gen Z people care about more than a paycheck, so it's up to us to demonstrate:

- Foundries today are safer, cleaner, and brighter—this ain't your granddad's foundry.
- Foundries are major recyclers and are actively advancing sustainability initiatives to protect the environment.
- The workday is never the same day twice—there's always a new project and challenge.
- The people are friendly—work culture is caring and helpful.
- Continuing education is frequently covered by your company.
- Many excellent entry points for every education level.
- Everyone makes a contribution to process and safety improvements.
- Want to go live in a new state? Metalcasting has career opportunities everywhere.
- Loads of room for advancement; many foundries need smart, dependable people to promote.

What kind of young women and men choose to come work in metalcasting? All kinds—with different goals, talents, and backgrounds. *Modern Casting* chatted briefly with three (below), but you can read more firsthand stories from industry newcomers at *www.afsinc.org/we-love-metalcasting*.

Meet Audrie: 'I Would Never Do Anything Else.'

Audrie Corral is a 25-year-old metallurgist at AFS Corporate Member Charlotte Pipe. An alumna of Virginia Tech University, an FEF school, she didn't know about metalcasting till she was introduced to the on-campus foundry that hosts classes and student organizations.

"I knew I wanted to go into an engineering field, but once I saw that first pour, I knew that was what I wanted to study," she said. "It was a perfect fit for me. I decided to go with it and never looked back."

Born in the Philippines, Audrie grew up in Richmond, Virginia. She did an internship with Charlotte Pipe the summer of 2018 while still in school and was hired on full time after graduation in July 2021.

What does a typical day in the life of Audrie look like? "There is no typical day," she laughed.

"I'm involved in quality issues and process improvements," she continued. I usually have samples running on the floor to either help with the quality issues or trying something new internally; finding a way to make something better. Some days, a sample might be a loss, but other days it's a complete win. Sometimes I work with the sales people, and some days I'm at my computer digging into data and running simulations. Other days, I'm out on the floor all day long, picking up castings and looking for defects. There's a lot to what I do."

Happy in her work is an understatement according to Audrie. "I can't even imagine working a different job," she said. "It's a great fit for my personality, too. I mean, I get to wear a uniform every day—I don't even have to think about what to wear. If you knew me personally, you would know how ideal that is. I would never do anything else."

Editor's Note: *Here's a suggestion—please don't let the content of this article remain hidden inside this magazine. Would you consider making copies available to your employees and people in your friend and family networks? The effort of building up a robust workforce will take a little effort from a lot of foundry folks. Please join the message-spreading movement, and let's not just move the needle— but send it flying off the gauge. Thanks for everything you do; it is making a difference!*

Brad Cook

SAMPLE CAREER SALARY AVERAGES & BENEFITS

With a High School Diploma

- Molder, Machine Operator, Pourer, Crane Operator: $19+/hour
- Lab technician, Quality Assurance, Welder, Furnace Operator: $22+/hour
- Patternmaker, Maintenance Mechanic: $24+/hour
- Electrician: $25+/hour

With a College Degree

- Molding, Melt Superintendent: $80,000+/year
- Metallurgist, Quality Assurance Manager, Facilities Manager: $85,000+/year
- Engineering Manager, Plant Manager, HR Manager, Controller: $110,000+/year
- Sales Manager, Technical Director: $120,000+/year
- VP, President: $190,000+/year

Benefits

- 98% of U.S. metalcasting facilities offer health benefits
- 90% offer retirement plans
- 83% pay bonuses

Alex Basaj

Meet Brad: 'It Makes You Feel Good When You Solve a Problem.'

Brad Cook is quality engineer at Linamar, where he supervises three spectrometry lab technicians. He was hired at Busche Aluminum in 2018 and the company was acquired by Linamar in 2023. Today, he oversees the metallurgical side of the foundry, supporting his team, assisting the heat treatment department, participating in layer process audits and initiating corrective actions as needed, and performing data analysis and reporting as part of his role on the scrap reduction team. He also serves on the information systems team and makes recommendations for improvements and updating training.

"One of my favorite things is our scrap reduction team meetings——we review scrap trends and someone will point out how we could make a process more consistent for producing good castings at a good rate. When we come back for the next meeting, and we see the trend line going down, it makes you feel good—we found something wrong and we did a good job of implementing the solution, and now we see results.

Brad's father, Jeff Cook, is chief sales and marketing officer at AFS Corporate Member Eagle Alloy, and his uncle is a metallurgist—but even growing up surrounded by the foundry business, he wasn't convinced the industry was for him till he attended a fun, hands-on summer camp led by Dr. Sam Ramrattan at Western Michigan University, an FEF school. He says he's always loved math, science, physics, and even statistics and earned an associates in manufacturing, engineering and technologies at Muskegon Community College. He was drawn to casting because of the great variety of processes and metals involved. And he knows there's room to advance.

Meet Alex: 'There's Always Something Different.'

By random coincidence, *Modern Casting* met Alex Basaj (pronounced ba-sigh), who knew Brad at Muskegon Community College (MCC), and who's also a foundry family guy. With both parents in the industry and a third-generation metalcaster on his mom's side, he estimates his first tour inside a foundry occurred when he was about a month old. Although he fought the idea of entering metalcasting for years, he, like Brad, was strongly influenced by "Dr. Sam." His proverbial destiny was finally sealed during a foundry elective class at MCC, where he experienced foundry work through fresh eyes as a young adult.

Alex became process engineer at the Ardmore, Oklahoma, location of AFS Corporate Member EJ in 2022. He brought experience from Mobex (formerly Busche Aluminum and now Linamar), and a bachelor's in mechanical engineering from Michigan Tech, where he served as the technical assistant for the school's foundry class his last three years. He also did three foundry internships during college.

"I liked the uniqueness of the foundry," he said. "I grew up hearing about EJ but didn't really know what they made. Once I got here, I realized how many different things we make ... 60–70 different designs of castings in a day. And our stuff goes all over the world."

Alex wishes more high schoolers knew about the industry while their decision-making is already in progress. "And we need to get to them before the end of their sophomore year in college," he said. "After that, changing your major puts you behind and a lot of kids can't afford to do that. Whatever they've picked at that point, it kind of becomes hell or high water, and they have to stick with it." MC

Next Issue: *Watch for Part 2 on employee engagement in September.*