

## **Metal Casting's Secret Ingredient**

William W. Sorensen

Executive Director, Foundry Educational Foundation, Schaumburg, IL USA

### ***Abstract***

This paper describes the work of the Foundry Educational Foundation FEF, in the USA to support students working in the metal castings industry.

The paper describes how the FEF works in conjunction with the American Foundrymen's Society, AFS, the castings industry and educational establishments to support the developments of the industry future leaders in the American castings industry.

### **Introduction**

The metal casting industry needs quality people with new ideas and new technologies. That is why the Foundry Education Foundation, FEF, was created. Now, more than ever, the industry ~~we~~ can succeed more quickly and enjoy greater satisfaction by attracting the best college students to work in the metal casting industry.

FEF and the American Foundrymen's Society, AFS are two separate organizations in North America that can help students become better acquainted with this industry. I do not know of any other industry that reaches out to college students in America as much as the metal casting industry does with the FEF.

### **Background and Historical Perspective**

For sixty years, this Foundation has brought together ~~consisted of~~ many people—students and professors; trustee boards; company contributors, including foundries and suppliers; AFS chapters; and great leaders.

In 1947, when FEF was established to assure a continuing supply of technical manpower for the metal casting industry, a campaign was organized to provide financial support for three years - 1947, 1948 and 1949. Firms were asked to make pledges for the three-year period. Prior to the conclusion of the first three-year cycle, FEF began to demonstrate encouraging results and the Board Members inaugurated a second three-year cycle which was also financed on a pledge basis for 1950, 1951 and 1952.

In 1953, the Board Members decided to place FEF on a permanent basis and have it financed through annual contributions similar to the dues assessments of trade associations. A good percentage of the members who participated in the cycle campaigns accepted this proposal and FEF is now on an annual contribution basis.

Its mission statement is:

*FEF strengthens the metal casting industry by supporting unique partnerships among students, educators and industry, helping today's students become tomorrow's leaders.*

### **Funding and Support offered to Students**

The students are the focus of our efforts. This Industry needs the brightest and the best to enter our workforce. As an Industry, we must be competitive on the college campus. We must protect manufacturing courses designed to teach metal casting because we need the new energy and ideas, as well as workers, to add to our workforce. FEF students have made the single largest impact on metal casting in the United States during the last sixty years.

FEF scholarships are offered currently at 25 colleges and universities in North America. Scholarship recipients are selected by Key Professors at FEF schools. Size (minimum of \$500 and maximum of \$2,000) and number of scholarships are determined by the professors, based on the amount of money allocated to their school by FEF. FEF "Key" Professors receive financial assistance from the Foundation with discretionary funds and special awards. In addition, many special scholarships are available at FEF website each year.

Many leading foundrymen and many university professors are former FEF scholarship recipients. These former scholarship winners, along with FEF Board Members and other industry people, support the Foundation on an individual basis.

All revenue received from annual contributors goes into FEF's general fund and is used to support the regular scholarship program as well as all other FEF activities. In addition to this revenue, FEF receives funds for special purposes (named scholarships, AFS Chapter scholarships, memorial contributions and year-end contributions. Commissioned to work with full-time college level students, FEF, although independently supported, is an extension of the educational activities of the major trade and technical associations of the cast metals industry.

In this way, FEF does not conflict with AFS, NADCA (the North American Diecasting Association), or other educational programs in the USA. They compliment each other.

The company contributors offer the financial backbone of our operations. Beyond foundries and suppliers, no other large direct funding exists. Their vision for the future is through today's students. They are investing in the lives of young people who will become our future leaders. The provision of summer work, co-op opportunities, and permanent employments are essential components that help make FEF successful. On average, over 75—80% of the FEF students take full-time jobs in metal casting each year.

The students attending independent AFS Chapter meetings get to see our industry in action. The chapter meetings serve as a natural way to promote education and provide a vehicle for technical knowledge to our students. Chapter events often recognize students with scholarships as the Chapter sees the future in the lives of these students. Many times the local Chapter takes an active role in supporting their local FEF School.

Great Leaders guided this Foundation over the years with several volunteer FEF Presidents who were once FEF Students. We have come full circle over the years with today's leadership and strength coming from those who benefited from this Foundation in their years of greatest need.

Endowments through FEF are a special way to honor people. Endowments in the name of individuals will carry on the individual's legacy to future generations. The generosity and tax-deductible gifts and estate planning for FEF is a great way to insure the future. The earnings from these endowments help to support our scholarship efforts.

Students and professors, trustee boards, company contributors, AFS chapters, and great leaders are all a part of FEF.

### ***The Structure and Operation of the Organisation***

Through an active Board of Trustees of over fifty-two people, there is 100% support personally and corporately. This FEF dedicated board has pledged their time and their monies to help shape the future of our industry in the lives of students. Great leadership is a key to any great organization. With these dedicated volunteers, we can meet any challenge that comes our way.

The FEF is cost effective. With no large overheads and only a two person staff, FEF is the smallest of any society. We have been protecting contribution dollars long before hard times settled in. Companies and individuals can be confident of their investment in this foundation, which in turn is an investment in the future of our industry.

We have a very active investment committee that meets once a quarter to maintain our portfolio. FEF has an independent audit every year to make sure any possible mistakes are corrected quickly and efficiently.

Companies can be recognised through various levels of accomplished giving. Individuals can also obtain various levels of giving and recognition. Even in Estate planning, this will pass on legacies to countless future generations, and be recognized in the FEF Saugus Society.

### ***Links with Academia through Key Professors***

The professors are the key link to the schools. Without a strong student-oriented professor, the metal casting program often fails. This has to be a person who wants to see college students succeed and to succeed in a foundry career. The professors relay FEF information on scholarships and job opportunities. They also provide a role model to these students, guiding and directing the core curriculum to give students the best view of their futures. They are devoted, hard working, and loyal.

### ***FEFs Future***

The tendency in good times is to take our organizations for granted and in bad times to forget them. FEF's mission is to strengthen the metal casting industry with unique partnerships, helping today's students become tomorrow's leaders. How awesome! It fits any business cycle.

Do you know of any other industry that supports such a goal? We have no political agenda. Our industry actually has a voice on the college campus through the FEF. We are making sure the future is secure with our greatest asset—people.

### ***Dedicated to People***

Companies brag about how important people are to their organization. FEF is a foundation dedicated to people. What other industry has a foundation like FEF? Why would you not support something so good and so noble and so unique?

There is no doubt that even in tough times there is a strong need for engineering students. This need will only increase. Do these students stay in the metal casting industry? Retention over the past ten years at major US companies, which typically can show higher turn-over with other employees, shows FEF students at 90% retention or better!

The FEF student is well prepared. FEF also plays a significant role with curriculum relating to manufacturing, particularly in metal casting. Through an active FEF accreditation process, we keep up with our schools. They have to maintain our standards and demonstrate interest in us to be able to continue.

There must be strong administrative and local support to be an FEF school, along with demonstrated placement of students in our industry. This is why AFS-CMI (Cast Metals Institute) has almost all of their regional labs now placed at FEF schools. Through dedicated Key Professors, we get the word out on the campus. Students also have important role models so essential to the success in their careers.

Through the annual College Industry Conference, (CIC) we bring students into an environment of opportunity. Gathering in Chicago at a great historic hotel, these students have opportunities to meet and network with students from other colleges and universities from across North America. They also have the unique experience to meet face to face with industry leaders who make presentations, offer career opportunities, and provide social interaction. Professors from these institutes of higher learning also have opportunities to network and share ideas in the field of metal casting. What a great way to meet the future, face to face, in the lives of these college students!

### ***Where to find out more***

More can be learned about FEF at our website, [www.fefoffice.org](http://www.fefoffice.org)

The organisation also produces a CD or Video that is called “Casting for a Career.” This excellent eleven-minute presentation is great for community groups or classrooms. There is also have a PowerPoint presentation about FEF that can be downloaded from the website.



Please check out our website and encourage metal casting students in North America to register and apply for special scholarships on the web site, [www.fefoffice.org](http://www.fefoffice.org).

This is a great industry in which to work and grow, and with FEF you have the secret ingredient for the metal casting industry in North America!