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AWS values diversity, advocates equitable and inclusive practices, and engages its members and stakeholders in establishing a culture in the welding community that welcomes, learns from, and celebrates differences among people. AWS recognizes that a commitment to diversity, equity, and inclusion is essential to achieving excellence for the Association, its members, and employees.

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Staying Strong in a Shaky Economy

When I wrote my Treasurer’s Report to the American Welding Society (AWS) board earlier in January, the northern half of the country was experiencing a “polar vortex,” with temperatures, including wind chill, dipping well below 0˚F in many places. The U.S. economy, too, felt like it was in a polar vortex, with a number of chilling economic trends from the end of 2018 extending into early 2019. Below are examples:

• Stock market volatility created the worst December performance since the Great Depression.
• Unemployment reached a 49-year low at 3.7%, making it difficult for many high-tech companies to find and hire needed talent.
• After four painful interest rate increases in 2018, the Fed kept rates unchanged in early 2019, as the housing market weakened.
• The bond market flashed a recessionary warning sign. The yield curve inverted, with the yield of 5-year Treasury notes falling behind that of 3-year Treasury notes.
• Uncertainty over the U.S.-China trade policy continued to stew, though the G20 Summit held in December 2018 produced a temporary 90-day halt to new tariffs.

All of this was reflected in a modest financial decrease for AWS, continuing through the end of 2018. AWS revenues for 2018 were $38.9 million, a slight (2.6%) decrease from the previous year. This softness in 2018 revenues compared to the previous year was also driven by decreases in international certification activities, domestic Certified Welding Inspector exam activities, and education, along with (to a lesser degree) advertising in AWS publications.

Surplus for the same period was $8.5 million, down 11.8% from the prior year. Combined with lower revenues, nonrecurring expenses compressed year-to-year performance. These expenses included internal AWS restructuring, ongoing enterprise resource planning/customer relationship management implementation expenses, and centralizing and automating customer service functions.

The AWS Foundation’s assets on December 31, 2018, dropped to $67.8 million, down $1.6 million or 2.3% from the year-end balance in 2017. Despite positive transfers to the Foundation of $3.5 million from operations, its expenses of $2.9 million and negative market investment changes of $3 million resulted in the overall decline in Foundation assets. (Fortunately, the negative market investment changes in December completely reversed in the first quarter of 2019.) In 2018, the Foundation awarded more than $1.4 million in scholarships and other programs, benefiting close to 1000 recipients. Additionally, under the new Welder Workforce Grant program, the Foundation awarded more than half a million dollars since 2017.

AWS total net assets at year-end stood at $155.4 million, a slight increase of $53,900 over 2018. Surplus generated in fiscal year 2018 did not increase our net assets as in other years, as operating results were absorbed by the decline in our investment portfolio, resulting in a flat effect on net assets.

Despite these less-than-desirable numbers for AWS, the reserve fund on December 31, 2018, was $53.2 million, an increase of $3.1 million or 6.1% greater than the 2017 year-end balance.

On the positive side, AWS was involved in several new and successful operational programs during 2018. The AWS Welding Summit in League City, Tex., in October included 13 professional presentations, a job fair, and a colocated meeting with the AWS Houston Section. We also attained International Association for Continuing Education and Training (IACET) and Accreditation Board for Engineering and Technology (ABET) accreditation, which will help us position our educational offerings.

Our 2018 FABTECH Show in Atlanta, Ga., was the largest even-year FABTECH ever held. Attendance was 33,755, up 9.5% from Atlanta 2014, and up 8.5% from Las Vegas in 2016. At 650,060 net square feet (NSF) of exhibit space, the 2018 Atlanta show was up 17.4% from Atlanta 2014 and 14% from Las Vegas 2016. The 198,925 NSF in welding represented an increase of 10.6% from Atlanta 2014 and 13.85% from Las Vegas 2016. International show increases followed suit; the 2018 WELDMEX Show in Mexico City occupied 49,350 NSF compared to 49,000 NSF in 2017 in Monterrey, Mexico.

The AWS membership count at year-end was 68,404, down 1863 or 2.7% over a one-year period. However, membership revenues grew by $387,500 or 8.5% compared to 2017, resulting from a revised transfer allocation from combo seminar and exam packages.

In early December, AWS hosted the inaugural meeting of the Skilled Trades Coalition, which included senior executives from 17 professional associations and unions. A recap story was published in the March 2019 Welding Journal (see page 63 in Society News).

“AWS felt the impact of a challenging and mixed economic environment that has strongly affected industry and advocacy interests throughout the country.”

Carey Chen
AWS Treasurer

— continued on page 115
1980s

Arc welding robots make their presence felt in U.S. manufacturing plants.

Welding filler metals continued to evolve to meet the demands of higher-strength and higher-toughness steels. Significant advances occurred in the development of flux-cored electrodes.

1980

Use of power transistors allows replacement of large transformers in welding power supplies. These inverter systems allowed small, efficient transformers to replace larger transformers operating at 60 cycles.

1984

The self-shielded version of flux cored arc welding sees broad use in the erection of high-rise buildings throughout the United States.

Soviet Cosmonaut Svetlana Savitskaya uses a hand-held electron beam gun to conduct welding, brazing, and spraying experiments in space.
1985

AWS educational offerings for welding inspection certification preparation and skills improvement were established.

1988

Resistance and arc welding robots see widespread use on automotive assembly lines throughout the world.

1989

The AWS Foundation was established to promote post-secondary welding education. To date, more than $7 million in scholarships and fellowships have been awarded to students.

The first AWS Section outside North America was established — the AWS Emirates Welding International Section.

Learn about the 1990s in the July Welding Journal.
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PRIZES (for each category):

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Entry Submission Deadline: June 28, 2019  |  Send your photos to photocontest@aws.org by June 28, 2019.

FORMAT:
- 300dpi or higher
- TIFF or JPEG
- Size 6” x 4” or larger
- Both horizontal and vertical shots will be considered
- Short description of the photo

JUDGING CRITERIA:
- Originality
- Composition
- Dramatic Presence

THE FINE PRINT:
- Photographers and welders must follow safe welding practices.
- All people shown in the image must be age 21 or older or provide written consent by a legal guardian or instructor when image is submitted.
- AWS retains the right to use any and all images (not just winning images) in their marketing materials.
- AWS Employees and families not eligible.
Excitement filled the air on April 10, 2019, as the American Welding Society (AWS) commemorated a landmark 100 years of service. Celebrating on the 100th day of its 100th year, AWS observed the occasion at its World Headquarters in Miami, Fla., along with local schools, organizations, Society members, and the South Florida community.

To bolster its centennial theme of “Honoring our Past, Embracing the Future,” AWS treated guests to finger foods, music delivered by a DJ, educational desserts, a digital photo booth, live demonstrations, interactive activities for both kids and adults, and presentations from government officials.

Welding Trailer Rolls Back to Town

One of the major highlights of the centennial event was the AWS Careers in Welding Trailer (Fig. 1), which last visited AWS Headquarters in 2012. The 53-ft interactive trailer travels the country for 18 weeks of the year and is comprised of four Lincoln Electric VRTEX® 360 virtual reality welding simulators (two for shielded metal arc welding and two for gas metal arc welding), plus a mini unit; welding trivia tablets; videos; a social media kiosk; career/salary data; scholarship information; and more.

During the centennial celebration, Welding Instructor Stephanie Hoffman, along with various AWS staff members, led visitors around the trailer, informing them about the many careers in welding and assisting them in perfecting their virtual welds.

Approximately 511 people visited the trailer, with 343 welds made on the welding simulators. Attendees ranging from students to staff members to government officials were excited to jump in and try the craft. Some even got into a friendly competition to get the highest score.

In honor of the Society turning 100 years old, a $1000 scholarship was awarded to the person with the highest score on the virtual reality welding simulators for that day. High School Student Susan Nelson, 17, won the scholarship — Fig. 2.

The interactive trailer made a lasting impression on those who entered it. Greater Miami Service Corps (GMSC) Teacher Andre Miller enjoyed seeing his students gain first-hand knowledge and experience on a new career option.

“We’re a construction training program and we’re always looking for avenues and career opportunities that interest the young people,” he said. “I’m hoping the ones who like welding will go ahead and pursue a career in the field.”

Fig. 1 — The 53-ft Careers in Welding Trailer was one of the biggest attractions at AWS’s centennial celebration.
All of the GMSC students in attendance tried welding for the first time on the simulator, and described it as an enjoyable activity.

“I had never welded before. I loved using it because it teaches you how to weld and lets you learn from your mistakes so that you can weld better,” said GMSC Student John Watson, 21. “I don’t know yet if I want to go into welding, but I am thinking of it. It was fun.”

Mayor of Doral Juan Carlos Bermudez was impressed with the trailer’s use of technology as a teaching tool in the skilled trades.

“I was truly honored to be part of the American Welding Society centennial celebration, where I had the opportunity to experience the virtual welding machine and witness, first-hand, the actual application of technology into the welding field,” he said.

**Booth Activities Make Learning a Fun and Tasty Treat**

In celebration of AWS’s 100th birthday, event-goers were treated to a variety of activities that entertained, informed, and satisfied taste buds.

One such activity included “edible electrodes,” which gave guests a basic understanding of what goes into a welding electrode as they created a delicious treat. The edible materials included pretzel rods (electrodes), icing (manganese), sprinkles (silicon), rice krispies (carbon), and cookie crumbs (chromium). Many guests were surprised to learn how elements play an important role in welding.

Uwe Aschemeier, senior welding engineer at Subsea Global Solutions, past AWS District 7 director, and contributing author of the *Welding Journal*, was present for the festivities to give guests information on underwater welding. He exhibited a video of underwater welding, articles he has written, and various underwater welding equipment, including a new commercial diving helmet, electrodes, and a communication box used to speak with the submerged diver. Aschemeier allowed guests to hold a 30-lb diving helmet while answering various questions, such as what it takes to become a commercial diver/underwater welder, the amount of money underwater welders earn, and whether or not underwater welding is dangerous — Fig. 3.

“I’ve heard a lot about underwater welding, but to see it in person is mind blowing,” said GMSC Student Edwin Bueso, 21.

Representatives from Matheson Gas, Harris Products Group, and Lincoln Electric were also on hand to perform live welding and cutting demonstrations. Lincoln Electric Welding Engineer Lou Kleinsmith wowed guests as he displayed the shielded metal arc welding process — Fig. 4. Harris Representative Ozzie Sejas demonstrated how to cut ½-in. mild steel with oxygen and propane, and allowed guests to give it a try as he guided them on the proper technique.

“I was the first time welding and I’m excited I tried it because I had a great experience,” said GMSC Student Ladarius Reid, 20.

Additionally, Marie Theodore-Pharel from Girl Scouts of Tropical Florida was in attendance to spread the word about the organization’s STEM Badge opportunities for young girls.

“As the premier organization for young girl’s empowerment and development, learning about AWS will enable us to provide and suggest AWS as
a resource to girls with a proclivity for hands-on engineering and other STEM-related [science, technology, engineering, and mathematics] interests,” said Theodore-Pharel.

The Girl Scouts booth offered guests a bracelet-making activity aimed at teaching the concept behind basic binary codes that make up computer language.

Also present was Florida International University’s Department of Engineering, which showcased the school’s 3D-printed components, and SkillsUSA Representative Dave Worden, who answered questions about membership and discussed the benefits of competing.

To cement memories, a photo booth was available for guests to take snapshots of themselves with welding helmets, hard hats, safety goggles, and other amusing props.

City of Doral Honors AWS with Proclamations

With government officials joining in on the festivities, AWS’s centennial celebration featured presentations from Mayor of Doral Juan Carlos Bermudez, County Commissioner José “Pepe” Diaz, and representatives from the office of Congressman Mario Díaz-Balart.

The program kicked off with AWS Executive Director and CEO Matt Miller, who highlighted AWS’s mission to serve communities.

“April 10 actually marks the 100th day of our 100th year, and we couldn’t think of a better place to celebrate than right here in our headquarters and in this local community,” affirmed Miller. “From the very beginning, when AWS was formed back during World War I, our enduring mission has been to protect and improve lives by advancing the science and technology of welding. That mission now extends to more communities all around the world.”

Miller also thanked all the men and women in the industry who have helped shape the Society and underscored the importance of educating the public about the dire need for welders.

Highlighting the deficit of welding professionals, AWS Foundation Executive Director Monica Pfarr identified the numerous ways the AWS Foundation is helping to rectify the shortage, such as offering $1.3 million annually in scholarships.

During his presentation, Mayor of Doral Bermudez discussed the historical role welding played in World War I, and pointed out that AWS’s World Headquarters almost became Miami-Dade’s City Hall building several years ago. Proclaiming April 10 as American Welding Centennial Day, he praised the organization for its contribution to society — Fig. 5A.

“The men and women of your Society are the people who make a lot of things we enjoy every day possible,” Bermudez declared.

Miami-Dade County Commissioner José “Pepe” Diaz concurred with Mayor Bermudez and acknowledged that reaching 100 years is an incredible milestone for a company. He proclaimed April 10 as American Welding Society Day — Fig. 5B.

“One hundred years in anything is a long time, but when 100 years of excellence takes place, that’s a great reason to celebrate, and that’s what we’re doing here today,” said Diaz. “That plane that just flew over us had welders working on it; that truck that just went by had welders working on it. Basically, everything that is around us, you guys touched.”

Glorianne Oliveros, district director for the office of Congressman Mario Díaz-Balart, thanked AWS for helping to educate the community.

“It’s great to raise awareness of an organization such as this one that is so important to bringing so many skills to individuals in our society,” she said.

Oliveros gifted AWS an American flag that was flown over the U.S. Capitol in honor of AWS’s 100th anniversary, along with a certificate of authenticity — Fig. 5C. She also announced that AWS had been entered into the Congressional Record, saying, “The American Welding Society is now a part of U.S. history and can be consulted in the Library of Congress for all time.”

ROLINE PASCAL (rpascal@aws.org) is assistant editor and KATIE PACHECO (kpacheco@aws.org) is associate editor of the Welding Journal.
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- Become actively involved in your local AWS Section activities.
- Attend AWS-Sponsored events such as FABTECH USA, Mexico or Canada; Welding Summit, and others.

2 ENJOY NUMEROUS DISCOUNTS

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- Enjoy reduced admission to AWS-sponsored events and conferences (FABTECH, etc.).
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- Increase your welding knowledge through AWS online seminars, including code clinics, destructive and non-destructive testing, metallurgy, economics, fabrication math and more.
- Get certified by the organization that sets the standards including Certified Welder, Welding Inspector, Welding Educator, Engineer, Sales Representative and more.
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