

**2015**  
ANNUAL REPORT

# SME



# 2015 SME ANNUAL REPORT

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## SME's Vision

**To be the premier resource and advocate for the mining community we serve**

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## SME's Mission

**SME serves professionals in the mining community and supports the advancement of the industry**

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## SME's Core Values

- Members First
- Professional Excellence
- Innovation

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## SME's Goals

1. SME will provide resources for sustainable professional and educational development programs
2. SME will be the primary resource of fact-based mining and underground construction information
3. SME will improve the perception of the mining industry among the public and key constituents
4. SME will grow membership
5. SME will maintain a financially secure and stable organization
6. SME will nurture a vibrant, engaged global network of local sections



**J. Steven Gardner**  
2015 SME President  
ECSI LLC

It has been my honor and privilege to serve as SME President this past year. It has been an exciting year filled with challenges. Almost every mining sector is down with significant layoffs. The coal sector has been hit extremely hard and most likely will not come back to its previous level. History tells us that other mining sectors will rebound in time.

I am proud of the financial strength SME has attained under the leadership of executive director Dave Kanagy and the capable SME staff. With the downturn in the mining sectors, SME leadership and staff have looked at measures that may have to be taken if the downturn effects the Society further. No one is panicking, but contingency plans have to be in place.

The initiatives I focused on during my term were not new, but continuations of past initiatives started by my predecessors. SME has continued to make progress on the initiatives throughout the year, including:

- Education sustainability initiative
  - First Fellowships and Career Grants awarded.
- Health and safety
  - Health and Safety Division organized with programming for Annual Conference
- Mining and sustainability initiative
  - Continuing collaborative efforts with WFEO task force
- Public perception of mining
  - Continuing to develop strategy to coordinate efforts across the mining sector
- Local sections
  - Organized ad hoc committee to study how to better serve sections.

I was able to travel to many local section meetings over the past year and wish there had been time to go to many more. The local sections are the backbone of SME and the ad hoc committee that we have in place is designed to help strengthen the member value. I hope to make more local section meetings as I travel around the country again for my “day job.”

Past SME initiatives that were also continued with significant accomplishments in 2015 included Global Outreach and Communications. SME’s Global Outreach was characterized by the successful efforts in Peru, with plans to expand to other South Ameri-

can countries, followed by the rest of the world. The Global Minerals Professional Alliance (GMPA) is a collaborative effort of the world’s leading mining professional groups. OneMine.org is a common link, but other projects to benefit members are under discussion. Our efforts in Peru this past year have led to the Institute of Mining Engineers of Peru (IIMP) joining GMPA as a member.

I have been particularly proud of the expansion of SME Student Chapters, both in the United States in other universities besides those with mining engineering programs and internationally. While traveling in Peru, I was greatly impressed with the enthusiasm and optimism of students there. I feel SME has a great future internationally.

The SME Communications initiative saw the launch of SME’s new redesigned website and implementation of the new association management system. (There were some issues with this as many of us have seen in our own experience, but SME staff is working diligently to resolve those.) I also consider the efforts of our Government and Public Affairs Committee (GPAC) to have been very successful, with the continued issuance of technical briefing papers and the second SME Congressional Fellow starting in Washington, D.C. Our first Congressional Fellow, Dr. Josh Hoffman, was a success and was retained to stay on for a second year. There was much more accomplished by SME during the year. These are just a few of the highlights.

I have found one of the strengths of SME is the presidential succession process that essentially has a team of past, present and future SME presidents working together as a team, sometimes for many years. I have used and relied on our most recent group, John Marsden, 2014 Past President, Tim Arnold, 2016 President Elect and John Mansanti, 2017 President Elect Nominee. I have also called on many other past presidents for advice on various initiatives that they either started or were passionate about. I want thank the many members who have volunteered their time and efforts for SME. I will continue to be involved in SME to work on those initiatives that I am passionate about.

Thanks to all of the SME Foundation members who are helping to Fund Solutions to Mining Challenges.

Also, last but certainly not least is my thanks to the SME staff who do the work of our Society every day.

Please remember, Be Safe Out There.

As everyone in our community knows, 2015 was a difficult year. More SME members are unemployed; commodity prices are much lower than in recent years, capital purchases are being pushed out, exploration projects are being slowed or halted and a perfect storm has evolved for challenging times in the next few years. I don't bring good news for 2016 either, all indications are that the earliest the mining sector will see an upturn is second quarter 2017, and I suspect it will be further out than that timeframe.

Henry Ford was quoted as saying, "When everything seems to be going against you, remember that the airplane takes off against the wind, not with it." So, in the face of adversity, SME has completed another year in reasonably good shape. Yes, we have lost some members this year. I'm very disappointed by that fact, but the SME Board has taken action to develop a Hardship Program for members who are presently unemployed, but continue to seek employment in the industry. I'm proud that the Board sees the need for a hardship program to assist members with membership and conference registration in this difficult time. It is our responsibility to assist members in these times.

Financially, SME is in excellent shape completing another year with an operating surplus bringing our total unrestricted assets to nearly \$12 million and total assets to more than \$31 million when counting all of SME's entities. Members can be assured that the SME Board is watching the changing effects of the industry on SME and taking the necessary precautions to protect the Society financially.

Realizing the critical need of faculty at our mining and metallurgical schools, the SME Board, in coordination with the SME Foundation Trustees, have launched the first set of Ph.D. Fellowships and Faculty Career Development Grants. Five individuals started in the fall of 2015 with funds from SMEF and an additional five will start in 2016. We want to ensure qualified faculties are available to teach at the university level and those who are in a tenured track position achieve tenure from their university with the necessary research and teaching requirements. This is absolutely critical to the future of the profession.

SME launched its Health and Safety Division this year. Early indications from the H&S leadership seem to confirm that SME has tremendous opportunity in this area for new members and a renewed focus on job one in the mining industry. Programming at the Annual Conference in 2016 will feature a more diverse focus on safety and engage members in new ways to promote the importance of understanding the risks each day we go into a mine.

As many have experienced, SME has invested in

a new association management system (AMS), our enterprise network along with a redesigned website with new navigation and enhanced e-commerce. SME launched the AMS on July 13 and the new website on Aug. 5 during 2015. It has had its challenges with the bold and innovative ideas that have been brought to us by our desire to serve members in a faster and more dynamic way. Everything at SME drives through our AMS system, so I encourage all members to log onto the website and check out your member profile to ensure its accuracy. If you have any challenges, we want to hear about them.

In February, the SME Board approved a new strategic plan for the Society. One element of that plan is to improve the perception of mining. That is a big audacious goal, if not the biggest! We are reaching out to other groups and doing more coordination to see if there are areas where we can collaborate to successfully do more to promote the need and understanding for mining . . . like providing the necessary ingredients for medicine and feeding the world.

SME President Steve Gardner and I had the opportunity to spend two weeks in Peru in the middle of the year. We represented SME at the Perumin conference and exhibit, visited with our staff in Lima, held meetings with Institute of Mining Engineers of Peru (IIMP) and CIP, Steve provided a lecture at the mining school in Cusco and our time concluded with IIMP joining OneMine. I hope that every member could experience the enthusiasm and interest that the young members and students in Peru have for the Society. More importantly, they have all the same concerns all members have . . . how am I going to manage my career in the mining community. Every professional has that concern with the experience we have had in the last 24 months.

This leads me to my last thought — During 2015 the SME staff had the privilege of working with the SME Minnesota and Florida Sections to assist with the development of their annual regional conferences. Both sections have tremendous leadership and truly committed members. Both groups have unique aspects to their sections that bring more value to all those who are involved and attend these events. I cannot thank both of these sections enough for their efforts and for the pleasure to get to know them and their regions' mining issues a little better this year.

SME members are the best people I've known in my 31-year career and I thank you for the privilege and honor of serving you every day. Let's take off into the wind . . . every landing you walk away from is a good one. Because you've learned something, right? These times will teach us even more in the coming years.



**David L. Kanagy, CAE**  
SME Executive Director



**J. Steven Gardner**

*2015 President  
ECSI LLC*



**Timothy Arnold**

*2016 SME President  
Elect,  
Nevada Copper Corp.*



**John O. Marsden**

*Past President  
Metallurgium*



**David L. Kanagy**

*Secretary  
and Treasurer  
SME*



**Steven C. Holmes**

*Director  
KGHM International  
Ltd.*



**Mary B. Korpi**

*Director  
Newmont Mining  
Corp.*



**John D. Wiebmer**

*Director  
Caterpillar Global  
Mining*



**Ross R. Bhappu**

*Director  
Resource Capital  
Funds*



**William W. Edgerton**

*Director  
Jacobs Associates*



**William A. Warfield**

*Director  
Consultant*



**John Mansanti**

*2017 President  
Nominee,  
Intrepid Potash*



**Robert Washnock**

*Incoming Director  
Freeport-McMoRan*



**Michael Myers**

*Incoming Director  
Baldor Electric*

# Strategic Committees

## Outreach Strategic

**Steven Holmes**

*Chair, KGHM International Ltd.*

**Michael Rowe**

*Resource Capital Funds*

**Mary Walker**

*Freeport-McMoRan*

**Robert Washnock**

*Freeport-McMoRan*

**Terry Lamy**

*Mosaic Company*

**Sarah E. Mattila**

*US Steel Minnesota Ore Operations*

**Eric Wang**

*Jacobs Engineering Group Inc*

## Structure and Governance

**William Warfield**

*Chair, Consultant*

**Genevieve Bodnar**

*Doe Run Co.*

**S.A. Ravishankar**

*Cytec Industries*

**Ronald Parratt**

*Renaissance Exploration*

**David Tyler**

*Coeur Mining*

**Anne Williamson**

*Twin Metals Minnesota LLC*

**Joseph Zelanko**

*Rosebud Mining*

## Products and Services

**John Wiebmer**

*Chair, Caterpillar Inc.*

**Thomas Gray**

*Tetra Tech Inc*

**Jess Kindler**

*Atlas Copco Nusantara*

**Robert Reisinger**

*CH2M Hill*

**Holly Bellmund**

*US Silica Co*

**Todd Parker**

*ArrMaz*

**Pamela Wilkinson**

*University of Arizona*

## Nominating Strategic

**J. Steven Gardner**

*SME President and Chair, ECSI LLC*

**Timothy D. Arnold**

*SME President Elect, Nevada Copper Corp.*

**Rick Honaker**

*University of Kentucky*

**Dan Alexander**

*Retired*

**Steven Holmes**

*KGHM International Ltd.*

**Mary Korpi**

*Newmont Mining Corp.*

**Corby Anderson**

*Colorado School of Mines*

**Robert Reisinger**

*CH2M Hill*

## Education and Professional Development

**Mary Korpi**

*Chair, Newmont Mining Corp.*

**Kramer Luxbacher**

*Virginia Tech*

**Timothy Hilderman**

*Minova*

**Michael Trevits**

*NIOSH*

**Matt Blattman**

*Blattman Brothers Consulting*

**Jamal Rostami**

*Penn State University*

## Finance Strategic

**Ross R. Bhappu**

*Chair, Resource Capital Funds*

**Ryan Murray**

*Murray Energy*

**Tim Swendseid**

*RungePincockMinarco*

**Mark LeVier**

*Great Western Minerals Group*

**Gordon Stevens**

*Patrick Engineering Corp.*

**Gary Buchan**

*NIOSH*

SME's Government and Public Affairs Committee (GPAC) has continued to work diligently to raise the political profile of SME as a fact-based, nonpartisan, technical mining resource to regulatory agencies, members of Congress and their staff by: participating in professional society meetings and Congressional briefings in Washington, D.C.; submitting regulatory comments to federal agencies on proposed rules affecting the mining industry; submitting correspondence to Congress in support of, and in opposition to, specific legislation (within the limits of SME's 501 (c)(3) status); meeting with, and continuing to be a resource for the staffs of the House Natural Resources Committee and Senate Energy and Natural Resource Committee, among others.

GPAC issued the following technical briefing papers in 2015, bringing the total number published to 16:

- The Role of Arsenic in the Mining Industry
- Critical and Strategic Minerals Importance to the U.S. Economy

These papers have been distributed to respective congressional staff on the following committees: Senate Health, Education, Labor and Pensions; House Education and the Workforce; House Natural Resources; as well as the Senate Energy and Natural Resources.

In February, SME introduced Kevin Ashley, MS, PE, to the SME Board of Directors as SME's recipient of the 2015-2016 Congressional Fellowship for mining. Ashley, who has more than 30 years of applied mining engineering experience in metal, coal and industrial minerals, secured a position on the staff of Rep. Alcee Hastings (D-FL), who is on the House Rules Committee. In this position, Ashley will help review all bills that make their way to the House floor for votes.

In April, GPAC staff met in Washington, D.C. with Dr. Kwame Awuah-Offei, the U.S. Securities and Exchange Commission's (SEC) Academic Fellow who is working on SME's Petition for Rulemaking on Industry Guide 7 for reserve and resource reporting. Dr. Awuah-Offei, from Missouri University of Science and Technology, was one of 14 recommended SME members to be

considered by the SEC for this position. A Notice of Proposed Rulemaking is expected in 2016.

In May, SME, as co-founder of the Mineral Science and Information Coalition, signed a statement for the Congressional record in support of Senator Murkowski's S.883, the American Mineral Security Act of 2015 that would support domestic mineral production, among other things.

In July, GPAC sent a letter to the chair and ranking member of the Senate Energy and Natural Resources Committee in support of Acting Director Suzette Kimball's confirmation to Director of the USGS.

In August, SME's 2014-2015 Congressional Fellow, Josh Hoffman, took a job as professional staff on the House Subcommittee on Energy and Mineral Resources. Hoffman, who is the only mining engineer on Capitol Hill, had proved his abilities as SME's Fellow on the same committee by staffing two subcommittee hearings on the fiscal year 2016 U.S. Geological Survey budget, the controversial coal industry stream buffer zone rule, and as an industry resource for the hearings on the Gold King mine spill in Colorado.

In September, GPAC members participated in the annual Geosciences Congressional Visits Day in Washington, D.C. to draw attention to the need for federal investment in the geosciences.

In October, SME offered support for HR 3734, the Mining School Enhancement Act, which addresses the absence of a viable pipeline necessary to replenish current faculty vacancies in the United States' mining schools. Also in October, SME's GPAC drafted comments opposing the Office of Surface Mining's proposed Stream Protection Rule that uses a model mine that does not accurately predict impacts in relation to different sizes of mining operations, and attacked the general monitoring requirement that does not recognize the biological and ecological variation in ephemeral streams across coal mining regions.

In November, SME members Leigh Freeman and Dr. Hugh Miller provided testimony on HR 3734 at the first congressional hearing held underground. The hearing was held in the Colorado School of Mines' Edgar Experimental Mine in Idaho Springs, Colorado. Josh Hoffman organized and staffed the hearing for the Subcommittee on Energy and Mineral Resources.



SME Membership found a significant challenge with dips in several mining sections in 2015, but had a year-end membership of 14,757, 431 fewer members than in 2014.

As shown in the graphs, several divisions have seen an uptick in membership in 2015 but the largest change was a reduction in the Mining & Exploration Division.

The successes in 2015 include the addition of several new student chapters, with much of the growth coming internationally. SME currently has 46 student chapters in the United States, Canada, Mexico, Ecuador, Peru, Chile, Columbia, the Netherlands, India, Australia, Africa and Iran. These additional groups helped offset a significant drop in international professional members, attributed in part to the shuttering of operations in parts of the world. With the additional of new student chapters, SME has been able to extend its reach into underrepresented areas and will optimistically be able to develop membership in those areas.

SME exhibited at several events during 2015 in the United States, Canada and Peru to promote

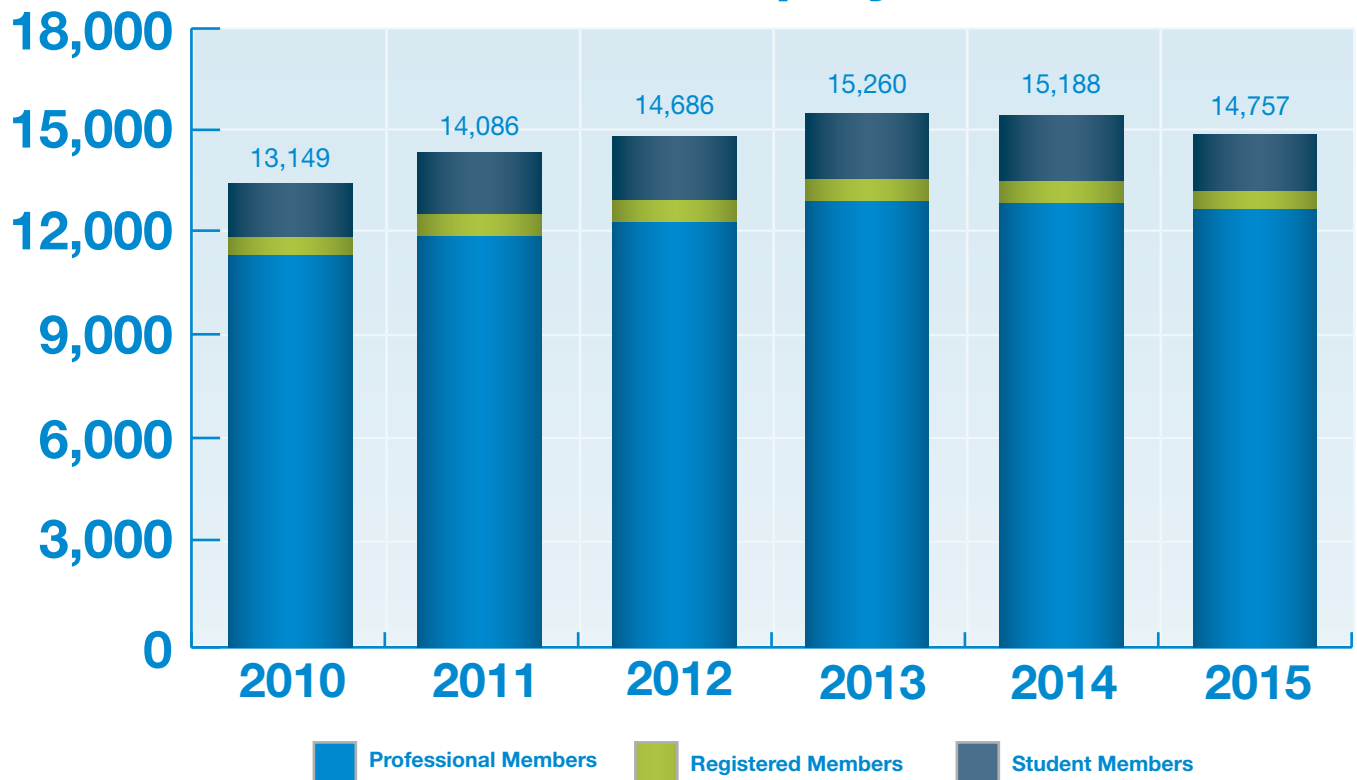
its signature products and services. These included SME memberships, SME-sponsored conferences and short courses, the SME bookstore, Mining Engineering magazine and the OneMine.org digital library.

In 2015, SME recruited more than 600 new members at conferences and events. In 2016, More emphasis will be made for lead generation, lead management, and recruiting and retention. The intent is to build a qualified prospect database, talk to prospects about relevant topics and increase retention year-over-year.

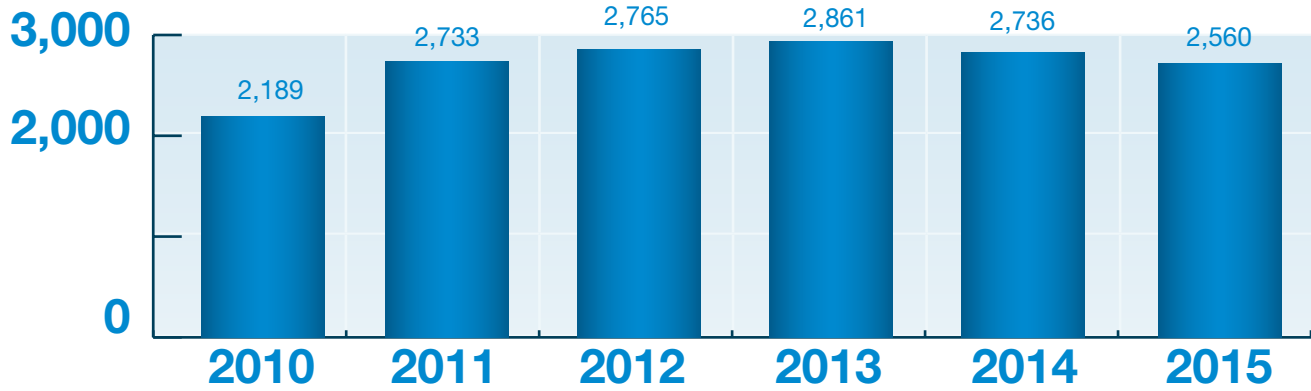
The membership department has been challenged to grow membership to reach 20,000 members by the year 2020. New tactics, tools and techniques will be added to serve both an aging membership and a younger, tech-savvy population.

Membership outreach will include continued presence on social media, including the development of the #miningsociety hash tag. Direct mail, advertising and digital marketing will also be used, with a primary goal of driving awareness to landing pages and the website where they can learn more and have a positive membership experience.

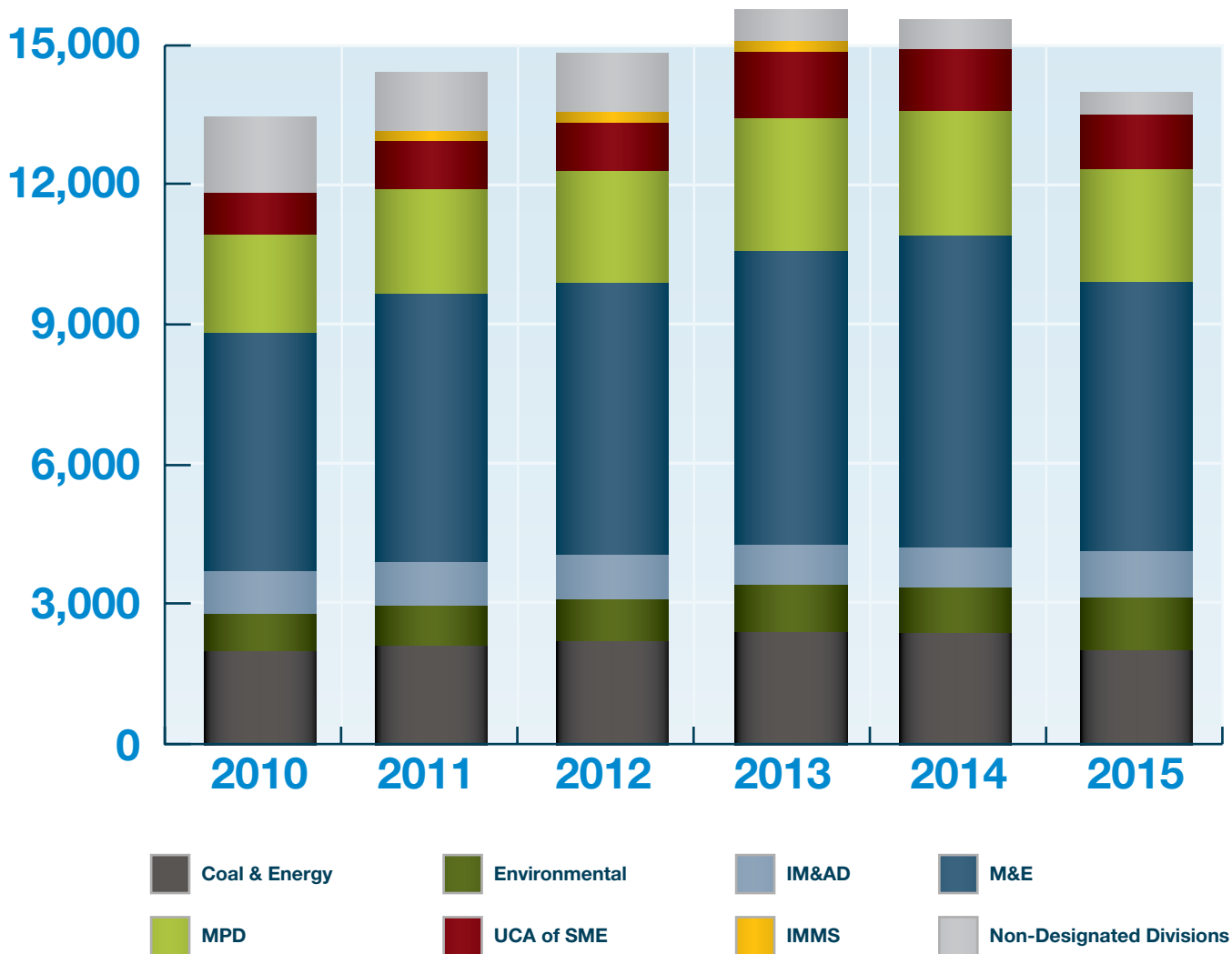
## Membership by Grade



## International Members



## Membership by Division



## Legion of Honor Members

M.N. Anderson, Vancouver, BC, Canada  
Leonard Austin, Centre Hall, PA  
Edwin Bentzen, Arvada, CO  
Paul Blair, Seattle, WA  
Phil Bowman, Jackson, OH  
Curtis Burgess, Manassas, VA  
Yoginder Chugh, Murphysboro, IL  
Harrison Cooper, Bountiful, UT  
Harry Cougher, Meridian, ID  
George Desko, Latrobe, PA  
Dale Dixon, Tucson, AZ  
Martin Duarte, Ayala, Philippines  
Rene Dufour, Mont Royal, PQ, Canada  
Donald Ewart, Butler, PA  
Edmund Finch, Winter Haven, FL  
Michael Fraser, Tucson, AZ  
Robert Golkosky, Greenwood Village, CO  
Terry Gooding, Wildwood, MO  
Donald Gustafson, Reno, NV

Jeremy Hemphill, Humpty Doo, NT, Australia  
Artemas Holmes, Lakeland, FL  
Keith Hulley, Laguna Beach, CA  
Guy Johnson, Lakewood, CO  
Hemendra Kalia, Las Vegas, NV  
John Klemenic, Palisade, CO  
David Krebs, Centennial, CO  
Richard Kunter, Lakewood, CO  
Richard Laird, Tucson, AZ  
George Lensch, Salt Lake City, UT  
Ta Li, Golden, CO  
James Mason, Cedar City, UT  
Douglas McIntosh, Denver, CO  
John McKana, Hancock, MI  
Jack Merritts, Lakewood, CO  
Drew Meyer, Birmingham, AL  
Frank Milliken, Oro Valley, AZ  
L.F. Muller, Chico, CA  
Frederic Mullin, Saint Helens, OR

Leland Norton, West Vancouver, BC, Canada  
George Oberlick, Louisa, KY  
Herbert Osborne, Commerce City, CO  
Thomas Parker, Kalispell, MT  
Marshall Parsons, Gaithersburg, MD  
Kenneth Pohle, Greenacres, FL  
Kenneth Price, Franklin, TN  
Kalanadh Sastry, El Cerrito, CA  
Fred Schulte, Downers Grove, IL  
John Sharp, Austin, TX  
Gary Skaggs, Grand Junction, CO  
Donald Stevens, Anchorage, AK  
Jack Thompson, Tucson, AZ  
John Van De Beuken, Tucson, AZ  
Harry Winters, Tucson, AZ  
Bruce Wright, Franktown, CO  
Tuncel Yegulalp, Teaneck, NJ



In 2015 Chairman Steve Gardner created a Local Sections Task Force, headed by incoming Chair Tim Arnold, to investigate how to best serve the SME local sections around the world. The committee is made up of representatives from local sections around the world. They include:

- Genevieve Bodnar – St. Louis Section
- Patrick Williamson – Mexico Section
- David W. Bieber – Colorado Section
- Kathryn D. Gardner – Northeastern Nevada Section
- Michael C. Korb – Penn Anthracite Section
- William Warfield – Northern California Section
- Michael Perala – Minnesota Section

The group is addressing several issues:

1. Assemble task force team from a mix of local section members.
2. Develop appropriate governance guidelines for local sections.
3. Staffing needs for the National office to be accessible for local section issues.
4. Assistance from National office to help local sections grow their local membership.
5. Identify possible communications channels for local sections.

As of Dec. 31, 2015 there are 59 local sections, four of which are international sections. Each domestic local section is required to submit a financial report for the year to remain in good standing. Notices have been sent to all local sections to remind them to submit those records.

A local section luncheon will be held at the SME Annual Conference & Expo in Phoenix in February 2016. Leaders of local sections can attend the lunch to learn best practices and success stories from other local sections.

## Krumb Lecture Series

SME helps bring outstanding speakers to the local sections through the Henry Krumb Lecture Series. The program is offered to all local SME sections to enhance their appreciation and understanding of important new methods and technologies. The 2015 program committee selected, and the SME board approved, seven Henry Krumb Lecturers. In 2014, three sections requested lectures, Washington D.C., Minnesota and Georgia.

The lecturers and their topics are:

### Peter J. Bryant

*The imperative for innovation in mining*

### Nina Fietz

*Pushing automation of shearer loaders to the next level — horizon control through usage of cutting-induced dust*

### Qingqing Huang

*Surface chemistry modification of rock dust for improved dispersion and coal dust explosion prevention*

### Michael A. Knight

*Some perspectives of mine pit repurposing*

### Yi Luo

*A design tool for improving safety of highwall mining operations*

### Markus A. Reuter

*System integrated metal production*

### Eugene D. Spiering

*Estimates of the withdrawn uranium endowment of the Arizona Strip District, Northern Arizona*

### Gary P. Tomaino

*Discriminating opaline phases from cristobalite and tridymite in clays*

### Sean Warren

*Ground support strategies used at underground gold mines in Nevada*

### Erik Westman

*An experimental study of rock stress redistribution for both mine stability and caprock integrity in CO<sub>2</sub> sequestration using passive seismic tomography*

## Outstanding Student Contest Winners:

SME recognizes outstanding achievement at the student chapter level by honoring the top contestant in its Outstanding Student Chapter Contest. Chapters submit annual reports that are then used to evaluate the level and quality of chapter activities and operations. The 2015 recipient of the Outstanding Student Chapter Award is the West Virginia University (WVU) SME Student Chapter.

The Student Chapter of SME at WVU has three primary focuses that include professional development, student involvement and community outreach. Chapter members attended 13 professional events, such as the joint PCMIA/SME meeting, the West Virginia Coal Symposium and the SME Conference in Denver, CO. They were also involved in 10 oncampus activities and hosted a few social functions. Chapter officers in 2014-2015 were Michael Sustar, president; Brandon Michalski, vice president; Jennifer Smith, secretary; Edon Micaj,

program chair and Mark Schuchardt, GEM/media coordinator. The late Christopher Bise was the faculty advisor.

**Winner:** West Virginia University Student Chapter of SME

**First Runner-up:** Colorado School of Mines, Student Chapter of SME

**Second Runner-up:** University of Kentucky, Norwood Student Chapter of SME

**Third Runner-up:** University of Arizona Student Chapter of SME

## SME online mentor program

Four new student chapters were added to SME during 2015. The chapters are University of Petroleum & Energy Studies, San Agustin National University - Arequipa, Middle East Technical University, Universidad Nacional de San Antonio Abad del Cusco - Peru.

## SME Student Chapters

University of Alaska	Indian Institute of Technology
University of Arizona	University of Petroleum & Energy Studies *
Colorado School of Mines	Indian School of Mines
Colorado School of Mines UCA	Laval University
Federal Univ of Technology Akure	Pontificia Universidad Catolica De Chile
University of Kentucky	Queens University
Michigan Tech University	Universidad Nacional De Ingenieria
Minnesota State Univ-Iron Range Engineering	University of British Columbia
University of Missouri-Rolla	Universidad Autonoma De Chihuahua
Montana Tech of the University of Montana	Universidad De Chile
University of Nevada-Reno	Universidad Nacional De Colombia
Nacional Universidad de Apurimac Micaela Bastidas	Universidad Nacional De Moquegua
Pennsylvania State University	San Agustin National University - Arequipa *
South Dakota School of Mines & Technolgy	Universidad Nacional De Altiplano
Southern Illinois University	Pontificia Universidad Catolica Del Peru
University of Utah	Stockton College of NJ
Virginia Polytech Institute & State University	Escuela Superior Politecnica Del Litoral *
West Virginia University	New Mexico Institute of Mining and Tech
University of Minnesota	University of New South Wales
University of Minnesota Duluth	Middle East Technical University *
Universidade Federal De Minas Gerais (Brazil)	New Mexico Inst of Mining and Tech
Universidad Nacional Mayor De San Marcos	Iron Range Engineering
Delft University of Tech	Universidad Nacional de San Antonio Abad del Cusco - Peru
Tehran Polytechnic University	* Chapter added in 2015

Michael Adkins, Saint Charles, MO  
 Aboagye Adu, Marshalltown, South Africa  
 Jeffery Allen, Hurricane, WV  
 Russell Alley, Tucson, AZ  
 Robert Baldwin, Chapmanville, WV  
 Michael Bapty, Cranbrook, BC, Canada  
 Linda Barli, Minneapolis, MN  
 Selena Billington, Boulder, CO  
 Marshall Bishop, Bartlesville, OK  
 Allan Breitenbach, Littleton, CO  
 Roberto Castaneda, Winnetka, CA  
 Peter Christensen, Bluefield, VA  
 Jondahl Davis, Sandersville, GA  
 John Duncan, Cheyenne, WY  
 Jonathan Ellingson, Fargo, ND  
 David Fanning, Las Vegas, NV  
 Gerald Finfinger, Pittsburgh, PA  
 David Gold, University Park, PA  
 Arthur Graham, Kinnelon, NJ  
 David Griffith, Markleeville, CA  
 David Hayes, Camden, TN  
 Dale Hintsala, PE, Hibbing, MN  
 Ralph Holmes, Bentley, WAS, Australia  
 David Howe, Vancouver, BC, Canada  
 Ibrahim Ismael, New Market, MD  
 Thomas Janochoski, Saint Paul, MN  
 Roger Johnson, Hibbing, MN  
 Dean Kaja, Milwaukee, WI  
 Richard Katz, Tuscaloosa, AL  
 Stanley Krukowski, Norman, OK  
 John Lacy, Tucson, AZ  
 Cliff Leonard, Atlanta, GA  
 Gregory Lindahl, Hibbing, MN  
 Michael Mannon, Proctorville, OH  
 Joseph McGill, Morgantown, WV  
 Steven McMillin, Spring Creek, NV  
 Harry Meador, Big Stone Gap, VA



Andrew Newell, Brisbane, QLD, Australia  
 Thomas Nye, Sedona, AZ  
 Roger Osmun, Draper, UT  
 Jacek Paraszczak, Quebec, PQ, Canada  
 David Pierson, Duluth, MN  
 William Riley, Sandersville, GA  
 Melvin Schmidt, Lake Charles, LA  
 Cheryl Seeger, Rolla, MO  
 David Sellers, North Fremantle, WAS, Australia  
 Grant Shelton, Lakewood, CO  
 Dinah Shumway, Apple Valley, CA  
 James Sullivan, Scottsdale, AZ  
 J. Trudel, Monument, CO

Michael Tuck, Ballarat, VIC, Australia  
 R. Urnovitz, Bothell, WA  
 Henk Van Muijen, Kinderdijk, Netherlands  
 Wolfgang Van Ommen, Podersdorf, Austria  
 Nick Vayenas, Sudbury, ON, Canada  
 James Volberding, Lewistown, MT  
 Nigel Wills, Irving, TX  
 Garth Wilson Denver, CO  
 Kimberley Wolf, Lamoille, NV  
 Scott Wotherspoon, Baldivis, WAS, Australia  
 Richard Yancey, Elko, NV  
 Gregory Young, Chesterfield, MO

## George A. Fox Conference

The 2015 George A. Fox Conference was scheduled to be held at City University of New York, in New York, NY on Jan. 27, 2015. However, due to a huge snowstorm, the conference was postponed and rescheduled for Monday, March 16, 2015. Conference participation was down due to the postponement with 317 total participants. The conference was chaired by Lonnie Jacobs. The keynote speaker was Doug Most, author of *"The Race Underground."* A book signing was held on site for all participants who purchased his book. The remainder of the conference featured presentations focused on Tunneling: Past, Present and Future.

## SME Annual Conference & Expo

SME and the Colorado Mining Association continue to celebrate tremendous successes with a joint Annual Conference & Expo. The 2015 conference held on Feb. 15-18, 2015 made history with 7,804 attendees and 906 exhibit booths.

Registration information of historical note:

- International Attendance: 740
- Student Attendance: 685
- New Members: 220
- Exhibit booths pre-sold for 2016: 738

For the past five years, Newmont Mining has continued to be the official meeting sponsor with a contribution of \$75,000. This included sponsorship of the student mixer.

The Foundation Dinner theme was "I Love Mining," which was held on Valentine's Day, Feb. 14, 2015. The dinner was attended by 450 people including 18 tables that were sold to generate additional sponsorship for the Foundation.

A field trip to Henderson Molybdenum Mine (operated by Climax Molybdenum Company) was attended by 50 people.

Other events that were held in conjunction with the 2015 Annual Conference included: Six short courses; Young leader mentoring session and lunch; Young leaders field trip; Spouse/guest brunch; New member orientation; Rising professionals reception; WAAIME Members and scholarship recipient reception.

## SME Minnesota Conference

SME National managed the SME Minnesota Conference this year for the first time. The conference was held in Duluth, MN on April 13-15, 2015. Two days of technical programming,



three short courses, two field trips and multiple networking opportunities were featured at the conference. There were a total of 1,103 attendees. The exhibit hall featured 208 booths. SME will be managing the SME Minnesota Conference again on April 10-13, 2016.

## Offshore Technology Conference

In March 2015, SME participated in the Arctic Technology Conference (ATC) in Copenhagen, Denmark. ATC had more than 150 technical presentations and papers and 654 attendees. SME also participated in the Offshore Technology Conference in Houston, TX in May 2015 which attracted more than 94,700 attendees from 130 countries. During the conference, SME's OTC Committee chaired five technical sessions. In October 2015, SME participated in OTC Brasil, which was held in Rio de Janeiro. This conference was attended by more than 8,000 energy leaders and featured 220 technical papers. Throughout 2016 SME will participate in OTC Asia, OTC and the 2016 Arctic Technology Conference.

## Rapid Excavation and Tunneling Conference

The 2015 Rapid Excavation and Tunneling Conference (RETC) was held from June 7-10, at the Sheraton New Orleans in New Orleans, LA. Final registration for 2015 was 1,255, with 178 exhibit booths.

The 2015 RETC Conference offered three short

courses in addition to 110 technical papers and 21 technical sessions, a technical tour of the PCCP projects post Katrina reconstruction work on three permanent structures to block future hurricane storm surges. In addition to the conference attendance scholarships, the RETC gave two university scholarships in the amount of \$2,500 each.

### Cutting Edge

UCA of SME and the *North American Tunneling Journal* co-hosted the 4th Cutting Edge Conference, focusing on Urban Tunneling at the Grand Hyatt Denver, in Denver, CO Sept. 21-23, 2015. The final attendance was more than 100 people with 12 exhibit booths. The two-day program featured a field trip to the Eisenhower-Johnson Tunnel and the Colorado School of Mines and technical sessions.

### Florida Conference/Dreyer Conference

For the first time, SME National managed the Florida Section Annual Phosphate Conference in Lakeland, FL on Oct. 7-8, 2015. The 2015 Florida SME Conference was combined with the Dreyer Conference. The Conference featured two days of technical programming, around 80 exhibit booths, and multiple networking opportunities. Final registration was 511, including both attendees and exhibitors. Sponsorships generated \$24,100.

### Arizona Conference

The Arizona Conference was held on Dec. 6-7,

2015 at the JW Starr Pass Resort in Tucson, AZ. The “mining weekend” concept continues to be successful for the Mining Foundation of the Southwest, the section golf tournament and the Arizona Conference. Pat Merrin of Hudbay was the keynote speaker. The luncheon speaker was Mary Poulton who addressed the new face of mining. The conference, chaired by Jeff Cornoyer, was attended by 410 participants.

### Hoist and Haulage

SME hosted the 2015 Hoist and Haulage Conference in Stockholm, Sweden, June 21-25, 2015.

ABB assisted SME in the planning of the two-day technical program development focusing on design, shaft systems, transport, innovation and health and safety. The conference also featured a welcome reception, a dinner and optional tours of Kiruna and Garpenberg, which were hosted by ABB.

Sponsorship of this conference was very successful generating \$52,000.

### Symposium on Environmental Considerations

SME held a symposium of Environmental Considerations Sept. 20 – 23, 2015 at the Omni William Penn, Pittsburgh, PA. The two-and-a-half day conference chaired by Michael Karmis and John Craynon featured a keynote, various technical sessions, speaker lunches, social events and a proceeding. Final registration was 93 attendees.

## 2016 SME Meetings

### George A. Fox Conference

Jan. 26, 2016, Graduate Center, City University of New York, NY

### SME Annual Conference & Expo

Feb. 21-24, 2016, Phoenix Convention Center, Phoenix, AZ

### SME Minnesota Conference

April 11-13, 2016, Duluth Convention Center, Duluth, MN

### World Tunneling Congress 2016

April 22-28, 2016, Moscone Center, San Francisco, CA

### Mining Finance

April 24-27, 2016, Shearman & Sterling’s Convention Center, NY

### 66th Annual Colorado MPD Conference

April 28-30, 2016, The Broadmoor, Colorado Springs, CO

### Cutting Edge

Nov. 6-9, 2016, The Concourse Hotel, Los Angeles, CA

### SME Arizona Conference

Dec. 4-5, 2016, JW Marriott Starr Pass Resort, Tucson, AZ



**M**ining Engineering (ME) is SME's flagship publication. Now in its 67th year, the magazine provides SME members the latest in innovative technological information aimed at helping mining professionals to do their jobs more efficiently.

In addition to ME, the Society publishes *Tunneling & Underground Construction* (T&UC), the publication of the Underground Construction Association of SME. The content of this quarterly publication is geared toward the underground construction and tunneling professional. Current and archived issues of ME and T&UC are available to members online.

*Minerals & Metallurgical Processing* (M&MP) is an SME peer-reviewed publication. The magazine is published quarterly and is subscription-only. M&MP's content is directed to professionals in the minerals processing field. In addition, the annual *Transactions* volume contains all peer-reviewed papers published in ME and M&MP, as well as several not published in either magazine.

### Mining Engineering

In addition to regular feature articles and peer-reviewed technical papers, content in *Mining Engineering* during 2015 included several special editorial sections. Included were special sections on coal, industrial minerals, minerals processing, exploration, autonomous mining, surface and underground mining and haulage, aggregates, and underground and surface haulage equipment. Regional issues covered Australia, Canada and mining in Nevada.

The January and February issues of *Mining Engineering* included the SME Annual Conference Showguide. The April issue included the SME Publications Catalog. May was the exploration annual review issue. July featured the annual review of more than 40 industrial minerals and construction materials and aggregates.

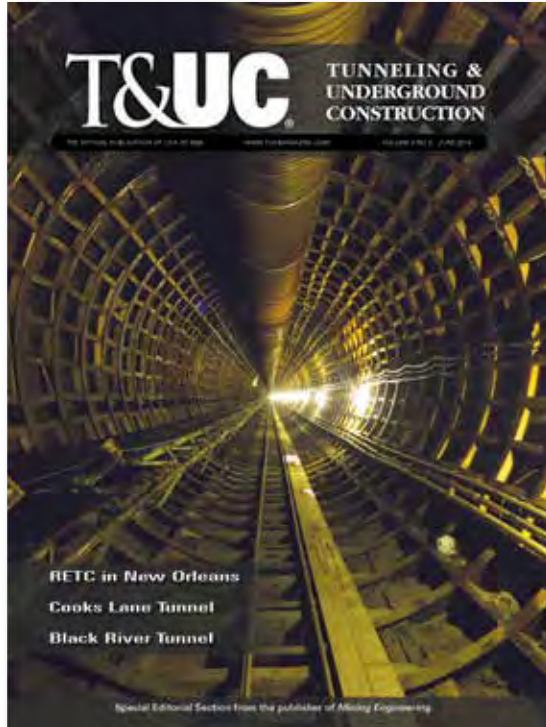
*Mining Engineering's* website, launched in 2012, includes mining industry news stories, updated daily, a commodities ticker and feature articles that are not published in the print version. An advertising program was developed for the new website. Current and archived issues of *Mining Engineering* are available to SME members to read or download.

### SME News

Topics in the SME News section of *Mining Engineering* include Legion of Honor members, SME/AIME award winners, calls for award nominations, SME division officer nominations, the Young



Leaders Committee, the Henry Krumb lecturer program, division scholarship award winners and an end-of-the-year index. The section also covers student chapter news, local section news, the SME Foundation (including the professional licensure of engineers and the Minerals Education Coalition), division newsletters, ABET updates and AIME news. Monthly departments include personal news, obituaries, necrology and new members.



## Tunneling & Underground Construction

*Tunneling & Underground Construction* (T&UC) is published four times a year, in March, June, September and December. Although the magazine is geared toward the underground construction industry, it is sent to all SME members. Each issue of T&UC is bound into ME but is also mailed as a stand-alone magazine to every UCA of SME Division member.

T&UC's content includes technical articles concerning major tunneling projects throughout the world. Articles are written by underground construction professionals. In addition to a general project feature, each issue of T&UC carries editorial material geared toward certain projects, technologies, equipment or types of tunneling. In addition to feature articles, shorter underground construction technology news articles are geared to the theme of each issue.

Other sections include the UCA of SME chairman's column, industry news items, new products, and underground construction events and short courses.

The Tunnel Demand Forecast (TDF) remains one of T&UC's most popular sections. An updated TDF is published in each issue. The TDF is also available on the UCA of SME website ([www.uca.smenet.org](http://www.uca.smenet.org)). Listings published in each issue of T&UC also appear on the online version. And users can submit their own projects for listing on the TDF. They are posted to the website after verification. Now that the ME site is operating, the Publications staff is planning to do a similar makeover of the T&UC website.



## Minerals & Metallurgical Processing and Transactions

*Minerals & Metallurgical Processing* (M&MP) is published quarterly in February, May, August and November. The journal is a subscription-only publication. Subscriptions during 2015 totaled 494. Each issue is typically 54 to 64 pages in length and contains from six to 10 peer-reviewed technical papers. The publication of M&MP began in 1984, and 2015 is Volume 32.

S. Komar Kawatra, professor at Michigan Technical University, performed the duties of Editor-in-Chief for 2015. During 2015, 29 peer-reviewed papers, totaling 240 pages, were published in M&MP. The February, May and August 2015 issues were special focus issues on gold processing, iron ore processing and coal processing.

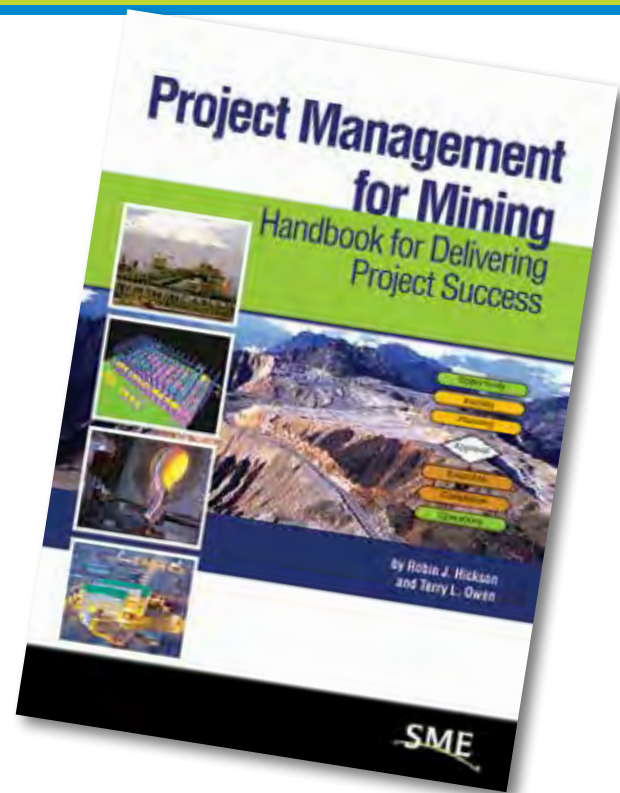
Fifteen technical papers and one discussion, totaling about 150 pages, will appear in *Transactions*, Vol. 338, for the year 2015. This total includes the index and papers not published in *Mining Engineering* or *Minerals & Metallurgical Processing*. *Transactions* will also contain the technical papers published in *Mining Engineering*, which numbered 22 and totaled 137 pages, and those published in the quarterly *Minerals & Metallurgical Processing*.

Beginning with the 2011 volume, the *Transactions* volume became available for purchase in electronic form only. The Publications staff is working with the SME IT staff to have individual *Transactions* papers available for purchase online.

**S**ME continues to be a leader in the publication of technical books for the mining and underground construction industries.

During 2015, SME produced eight new books and acquired four titles from other publishers. In 2016, the Society hopes to publish 12 new books.

The SME Bookstore continued to travel during 2015. Attendees at several industry conferences were able to purchase SME books at the SME Annual Conference, the Prospectors & Developers Association of Canada conference, Rapid Excavation and Tunneling Conference, the Denver Gold Forum and Perumin.



## Titles published in 2015

### **Application of Computers and Operations Research in the Mineral Industry: APCOM 2015**

Edited by Sukumar Bandopadhyay

### **Second Environmental Considerations in Energy Production**

Edited by John Craynon

### **Hoist & Haul 2015: Proceedings of the International Conference on Hoisting and Haulage**

Edited by Borje Johansson

### **Mine Rescue Manual: A Comprehensive Guide for Mine Rescue Team Members**

By Chris Enrigh and Robert L. Ferriter

### **Plant Auditing: A Powerful Tool for Improving Metallurgical Plant Performance**

By Deepak Malhotra

### **Project Management for Mining: Handbook for Delivering Project Success**

By Robin J. Hickson and Terry L. Owen

### **Rapid Excavation & Tunneling Conference: 2015 Proceedings**

Edited by Mark C. Johnson and Shemek Oginski

### **Responsible Mining**

Edited by Michelle E. Jarvie-Eggart

## Titles acquired in 2015

### **Orebody Modelling & Strategic Mine Planning**

By Roussos Dimitrakopoulos

### **Comminution Handbook**

Edited by Alban Lynch

### **Mineria Explicada**

The Northern Miner

### **Wills Mineral Processing Technology, 8th edition**

By Barry Wills and James Finch

## Top sellers in 2015

1. RETC 2015 Proceedings
2. Project Management for Mining
3. SME Mining Engineering Handbook
4. Hoist & Haul: 2015 Proceedings
5. Underground Mining Methods
6. Responsible Mining
7. Mining Economics & Strategy
8. Chemistry of Gold Extraction
9. SME Mining Reference Handbook
10. APCOM: 2015 Proceedings

**S**ME continued to increase its presence on a number of social media platforms, making the Society accessible to members around the world.

In 2015, SME saw growth in every social media platform. SME now boasts 12,023 Facebook fans, 24,955 LinkedIn members and 3,369 followers on Twitter.

#### SME Community 2015 totals:

Web pages viewed 121,078 (-17% from 2014)  
 Unique Logins 2,078 (-47% from 2014)

#### SME Twitter (@SMEcommunity):

4,375 followers (+1,006 from January 2015)  
 Between January and February 2015, our tweets had more than 81,000 views (+113% from 2014)

#### SME LinkedIn group:

29,035 members (+4,080 from January 2015)  
 SME Company page 3,535 followers (+1,374 from Jan. 2015)

#### SME Google+ page:

242 following our page (+60 from January 2014)

#### SME YouTube Channel:

4,676 views in 2015 (+110% from 2014)

#### SME Facebook page:

13,299 fans (+1,276 from January 2015)

#### Communications numbers for 2015

##### Press releases:

51 press releases about “all things SME”

Three separate press release statements of position from David Kanagy on behalf of SME regarding industry-specific events: Mining School Enhancement Act; Comments on Stream Protection Rule; Mine Rescue Day.

##### eNews:

21 issues of SME eNews sent to all SME members  
 Four issues of UCA of SME eNews sent to all UCA members

##### Media Contacts:

819 media contacts currently receive weekly press releases. SE2 has generated a list of potential media contacts. After analysis and elimination of duplications, we hope to increase our weekly contacts with industry media to more than 1,500.

#### SME Facebook Insights : Snapshot

Total Likes ↑ 10.6%  
**13,298**

#### Facebook Insights : Likes by Region



Countries	Likes
United States	1,996
India	1,549
Indonesia	1,490
Peru	1,260
Pakistan	795
Iran	593
Egypt	525
Turkey	498
Canada	351
South Africa	296
35 more countries	3,094

#### Webinars:

Number of sessions: 30

Number of attendees: 854

#### Most popular webinars:

SME 2015 Annual Conference and Exhibit Overview

Urban Underground Construction in Glacial Deposits

Challenges faced on the Regional Connector Project

Tunnel Engineering Challenges and Opportunities on the Devil's Slide Project

Engaging Strategies for Delivering Training and Conducting Meetings (Young Leaders Coaching Session)

SME Young Leaders Mentoring Session: Rookie Mistakes - Lessons Execrably Learned

Istanbul Strait Road Tube Crossing Eurasia Tunnel

## Coal & Energy

**Thomas Novak**  
2015-2016 Coal & Energy Division Chair

The Coal & Energy Division membership as of December 31, 2015 is 1,998, of which 315 are student members. This reflects a decrease of 82 members from the total of 2,080 members in 2014.

### Scholarships

Robert Kudlawiec reported that each scholarship winner from the Indian School of Mines was awarded one-fifth of the scholarship amount given to a U.S. student, because of significantly lower educational costs in India. It was reported that the SME Foundation (SMEF) asked the C&E Division not to solicit international companies and that the SMEF would conduct those solicitations. It was reported that C&E has donated \$2,500 annually to SMEF toward scholarships. As a result, the Committee recommended that Tom Novak, C&E Division Chair, make a request to the SME Board for permission to solicit international donations if the SMEF is not doing so.

### 2016 Annual Meeting Programming

There were 22 sessions scheduled for the 2016 Annual Meeting with 139 abstracts submitted. It was discussed that the newly formed Health and Safety Division had not negatively affected the C&E Division's ability to solicit health and safety related topics and abstracts.

### C&E Luncheon for the 2016 Annual Meeting

Tom Novak reported that he had contacted Joe Craft, CEO of Alliance Resource Partners, LP, and was waiting for a commitment to be the keynote speaker at the luncheon.

### Fundraising

Barb Arnold reported that the silent auction would not occur at the 2016 C&E luncheon because the funds generated were not worth the efforts and difficulties required to arrange and conduct the auction. Arnold suggested that we conduct a 50/50 drawing as a means of alternate funding. Heather Gravning was to investigate the legal aspect of conducting a 50/50 drawing in Phoenix.



**Thomas Novak**  
2015-2016 Coal & Energy  
Division Chair

## Environmental

**Alicia Duex**  
2015-2016 Environmental Division Chair

The Environmental Division's membership as of December 31, 2015 is 1,080. This reflects an increase/decrease of seven members from the total of 1,073 members as of December 31, 2014.

### 2016 Annual Meeting Program

Program Chair Barbara Nielsen reported that there will be 16 sessions at the 2016 Annual Conference & Expo in Phoenix, AZ.

A field trip to the Historic Mining District of Jerome, AZ is planned with emphasis on the history, geology, reclamation, and social economic benefits of the reclamation at the United Verde Mine.

### Luncheon

The Annual Luncheon sponsors are MWH, Veolia Water Solutions, and Brown & Caldwell.

### Scholarship Program

During the 2015 Annual Conference, \$4,481 was raised for the scholarship fund from the Division's silent auction.

In 2016, Veolia Water Technologies will donate \$2,000 for a scholarship again.

The eligibility guidelines for the Environmental Division were expanded to include schools that offer degrees in geological sciences. The guidelines now read:

Environmental Division student application requirement #3: Attend a school that is (1) ABET accredited, (2) has an SME Student Chapter, or (3) offers a B.S., B.A. or M.S., or Ph.D. in Geological Sciences.

### New Division Joint Committee

SME approved the formation of the ADTI-MMS/SME Environmental Division joint committee and SME's hosting of the subcommittee's website. SME will create a community page for ADTI and be the host.



**Alicia Duex**  
2015-2016  
Environmental Division  
Chair



**Eric Lutz**  
2015-2016 Health & Safety Division Chair

## Health & Safety

**Eric Lutz**  
2015-2016 Health & Safety Division Chair

The Health & Safety Division will present 10 technical sessions at the 2016 SME Annual Conference with more than 50 technical papers. It is important to note that these sessions are unique and did not pull content away from any other SME Division.

### Fundraising

The Division established a Health and Safety Division Awards Breakfast for the 2016 Annual Conference where formal recognition will be presented to three award recipients for Individual Excellence, Research and Educational Excellence, and Operational Excellence.

David D. Lauriski, former Assistant Secretary of Labor and head of the Mine Safety and Health Administration, is the featured speaker.

In other fundraising efforts, the Division created a 5K Fun Run sponsored by Predictive Safety LLC and Custos Frattis, L3C.

### Outreach

The Division has continued to strengthen external partnerships with the International Society of Mine Safety Professionals (ISMSP) and American Society of Safety Engineers (ASSE). Specifically, ISMSP was invited to hold its mine safety professional certification preparatory course in conjunction with the SME Annual Conference and representatives from ASSE provided speakers for some health and safety sessions at the SME conference.

### Bylaws

The Health and Safety Division bylaws were revised in December 2015 to reflect suggested changes by the Structure and Governance Committee.

### Membership

Efforts for Division membership recruitment will continue and be a priority in the coming year as the Division will launch a marketing plan to identify those persons with interest in aligning with health and safety during technical sessions at the 2016 Annual Conference. The Division has not yet been able to accurately identify internal members who wish to align with the Division.



**Rajesh Raitani**  
2015-2016 Industrial Minerals & Aggregates Division Chair

## Industrial Minerals & Aggregates

**Rajesh Raitani**  
2015-2016 Industrial Minerals & Aggregates Division Chair

The Industrial Minerals & Aggregates Division membership as of Dec. 31, 2015 was 1,094. This reflects an increase of 52 members from 1,042 in 2014.

The following should also be noted as key year-end accomplishments for the Division:

- There were 12 technical program sessions including 80 presentations planned by the Division for the 2016 SME Annual Meeting.
- Two presenters from the 2015 Annual Meeting division's technical sessions were selected by SME as 2015 - 2016 Henry Krumb Lecturers.
- 2015 Dreyer Conference was successfully held, jointly with 30th SME Regional Phosphate Conference during Oct. 6 - 8, 2015 in Lakeland, FL. The Dreyer Conference Program focused on Industrial Minerals for Agricul-

ture, with 10 technical sessions including 66 speakers. The conference was attended by 506 participants.

- Two Webinars series sponsored by the Division were offered by SME, on The Practical Aspects of Processing Chemical Use and Sustainable Development in Building & Construction Materials and Industrial Minerals, with four speakers on each. The webinars were well-received by the audience with potential to generate revenue for Scholarship Fund.
- A short course on Surface engineering and morphology architecture of minerals for use in Flame Retardation, Paints and Paper applications, is being offered at the 2016 SME Annual Conference and Expo at Phoenix.
- An ad hoc Events Committee to discuss topics and speakers for webinars and short courses offered by Division met several times in 2015 via conference-call and e-mails. An Events Committee meeting will be held during the 2016 Annual Conference and the ad hoc status will likely be upgraded to a Division Sub-Committee, with added responsibilities of Silent Auction conducted each year.

## Mineral & Metallurgical Processing

**Richard Johnson**  
2015-2016 Mineral & Metallurgical Processing Division Chair

The Mineral & Metallurgical Processing Division's membership as of Dec. 31, 2015 was 2,396 of which 213 were student members. This reflects a decrease in membership of 179 members from the total of 2,575 in 2014.

### Technical Programming

The MPD has scheduled 15 technical sessions including one Plenary Session dedicated to the Antoine M. Gaudin, Robert H. Richards and Milton E. Wadsworth award winners.

The 2016 Annual Meeting will cover the five basic fundamentals of Minerals Processing/ Extractive Metallurgy (comminution, flotation, plant design, chemical processing and physical separations). Furthermore, a motion had been passed by the MPD Executive Committee to make the above fundamentals the new division structure for the MPD Unit Committees, and the change was approved by SME's Board of Directors.

### Awards

SME agreed to fund the AIME legacy Robert H. Richards Award. This award is highly regarded as an "elite" award in the field of metallurgy; however, it is difficult to fund due to resistance from corporations and its high cost (silver bowl). Assistance from SME to fund the Richards Award is tremendously appreciated by the MPD.

Future goals for the MPD include endowment of the Wadsworth Award. Most other awards carry healthy balances and are financially stable.

### 2015-2016 Scholarships

At the Mineral & Metallurgical Processing Division's 2015 Annual Luncheon, the Division will present scholarships totaling \$13,000.

The MPD also sponsors a student poster session where all participants are given participation scholarship (\$100), and are offered lunch at the MPD luncheon. Larger prizes are awarded to first, second and third places in both the undergraduate and graduate divisions.

The MPD scholarship program is funded by the MPD Calendar. 12 industry sponsors support this calendar and it is given to every attendee of the SME Annual Meeting. Additional funding comes from proceeds from the MPD Scotch Nightcap. The MPD Scholarship fund carries a healthy balance and is essentially endowed for future years.



**Richard Johnson**  
2015-2016 Mineral & Metallurgical Processing Division Chair

## Mining & Exploration

**Sam Shoemaker**  
2015-2016 Mining & Exploration Division Chair

As of June 30, 2015, the Mining & Exploration Division had 5,618 members, of which 721 are student members. This is a membership decline of 333 members from July 31, 2014.

### Fundraising

The Mining & Exploration Division's Richard Gertsch Memorial Silent Auction will be held at the 2016 SME Annual Conference. Additionally, sponsors for the divisions annual luncheon have raised \$9,500 for the 2016 luncheon. Sponsors include KGHM, Hitachi Mining, Hecla Mining, Agapito Associates and Barr Engineering.

### Programming

For 2016, there are more than 300 abstracts with a target of around 180 for the Annual Conference. Many of the abstracts that will be cut from the 2016 meeting will be rolled over to the 2017 meeting.

### Bylaw and Handbook update

The proposed M&E bylaw changes were approved by the SME Structure and Governance Strategic Committee.

The new *M&E Handbook* is planned to be completed and available to the membership on the SME website by the 2016 SME Annual Conference. It was suggested that the handbook include extensive notes on programming.

### 2016 luncheon and auction

Three sponsors, KGHM, Hitachi and Hecla were found for the M&E luncheon. Hecla will be celebrating its 125th anniversary at the 2016 Phoenix



**Sam Shoemaker**  
2015-2016 Mining & Exploration Division Chair

meeting and are also sponsoring the larger SME meeting.

### Global Mining Standards and Guidelines Group (GMSG)

The Executive Committee reviewed the documentation provided by the GMSG in order to determine if the board's request from the Annual Conference had been met. At the 2015 Annual Conference the SME Board requested that the M&E continue to monitor

the GMSG in order to determine if they have developed a strategic plan to engage OEM's as well as an action plan for the group going forward. The board requested that the M&E executive committee make a recommendation as to continued SME funding at the midyear meeting.

The executive committee determined that the GMSG had made some progress but that progress did not meet the requirement given the GMSG at the Annual Conference.



**Arthur Silber**  
2015-2016 UCA of SME  
Division Chair

## UCA of SME

### Arthur Silber 2015-2016 UCA of SME Division Chair

The UCA Division had a slight decline in membership due to consolidation in the industry a slight slowdown in the industry. Total membership as of Dec. 31, 2015 is 1,130, down from 1,180.

### World Tunnel Congress

A strong emphasis was made on delivering a successful World Tunnel Congress (WTC) in 2016. This is event will bring the international traffic traditionally seen at the event, and the audience for the North American Tunneling (NAT) Conference held biennially. The WTC leadership team is headed by Chairman Mike Smithson and Co-Chair Lok Home. The event will be held April 22 – 28 in San Francisco and will offer a high quality, rich educational program, as many as 350 exhibits and networking with attendees from around the world.

Effective Feb. 1, 2016:

- 720 abstracts received - 470 accepted
- 356 manuscripts submitted - revised manuscripts submitted 272
- 130 oral presentations
- 220 posters

### UCA Meetings

The UCA drove the delivery of another successful George A. Fox Conference, although in January 2015, the threat of severe weather closed the CUNY facility where the conference was held. The

event was later held in March at the same facility, and while attendance was down slightly, it was a success, showing the strong brand equity of the Fox Conference. The 2016 Fox Conference will be held Jan. 26 at CUNY in New York City.

The UCA moved the Cutting Edge Conference to Denver in September 2015. The time of year and the location proved to be unappealing to the tunneling market, but the content was reviewed as outstanding and those in attendance felt strongly that the presentations were very valuable. The Cutting Edge Conference is next scheduled for November 2016 in Los Angeles, CA.

### UCA Strategic Goals

The UCA continued to work on developing deliverable to achieve its three strategic objectives for the organization. Those three strategic objectives are:

1. Become the Primary Resource for Underground Construction Issues and Information Requests.
2. Improve the Image of Underground Construction in the Minds of the Public, Government, Owners and all Key Constituencies.
3. Improve the Effectiveness and Efficiency of the Underground Construction Industry.

### UCA Scholarships

Lisa Mori, Colorado School of Mines; Simon Prasetyo, Colorado School of Mines; Kevin Schaeffer, Colorado School of Mines; Yuanli Wu, Colorado School of Mines; Hamed Zamenian, Purdue University.



## WAAIME

**Jean Davin**  
2015-2016 WAAIME Division Chair

In 2015, WAAIME awarded scholarships to 110 undergraduate and graduate students worth \$243,250. An additional \$60,000 was sent to the WAAIME's five International Sections in Mexico, Peru and Chile.

Because of its work for the past 100 years, WAAIME was honored to receive the 2015 SME President's Citation Award.

There were 120 new members added in the Lima/Peru Sections in 2015.

WAAIME considered a merger with the SME Foundation, but decided to remain a division.

The First Founder's Award was presented at the 2015 SME Annual Conference to Bonnie McMorris from the Utah-Northern Section of Salt Lake City.

Plans are underway to celebrate WAAIME's 100th anniversary at the Annual Conference in Denver, CO in February 2017.

The WAAIME Executive Committee received recommendations from its ad hoc committee to change the way its scholarship applications are evaluated and grant decisions made. Those ad hoc recommendations were largely adopted resulting in a system more in keeping with that of other SME divisions.

Chair Davin appointed an ad hoc committee to make recommendations on outreach support to educate the public and improve the public image of the mining industry.

In 2015, the WAAIME portfolio has decreased in value. In response, the Executive Committee decreased its scholarship allocation for the 2016-2017 school year to \$200,000 for U.S. students, and will review its allocation for the International Sections later this year.



**Jean Davin**  
2015-2016 WAAIME  
Division Chair

## 2015 WAAIME Scholarship Recipients \$250,000 awarded

### Colorado School of Mines

Alexandra Anderson, Amin Azhari, Danielle Campos Rocha, Dante Huff, Kamran Jahan Bakhsh, Charis Karakatsanis, Zoheir Khademian, Rajendra Prasad KVSRR, Sul-Ki Lee, Samuel Lolon, Kevin Moran, Jordan Rutledge, Caleb Stanton, Evody Tshijik-Karumb, Rahul Vaishnav, Ankita Verma, Kun Zhang, Chelsea Pomeroy

### Michigan Technological University

Benjamin Kramka, Felipe C. Silva dos Santos

### Missouri University of Science & Technology

Andrew Hanneke, Patrick Heywood, Mahdi Mohammadi Ghaleni, Uchenna Nwafor, Stanley Nwokebuihe, Drashti Patel, Jay Schaffler, Kathryn Sewester, Sanaz Yazdanparast

### Montana Tech

Steven V. Piippo, Asseu Yapo

### Trine University

Dustin Arvola

### Massachusetts Institute of Technology

Sonja Postak

### Purdue University

Hamed Zamenian

### Westminster College

Nicholas Yeiter

### Pennsylvania State University

Juan Medina, Gireesh Subramaniam Sankara Raman

### South Dakota School of Mines and Technology

Jordan Dick, Cedric Dimasa, Mark Mazzucco, Devin Rowe, Kathleen Tew

### Southern Illinois University at Carbondale

Batjargal Altangerel

### University of Arizona

Dongbo An, Qingming Feng, Gail Heath, Alyssa Hom, Peter Mather, Mohammad Hadi Mehranpour, Pablo Mosqueira, Srisharan Shreedharan, Ericka Tucker, Levi Willard, Raphael Woolley, Yan Xing

### University of Kentucky

Sampurna Arya, Jinxiang Chen, Mary Hillwig, Qingqing Huang, Kylie Larson-Robl, Lifeng Li, Amir Najarzadeh, Fnu

Shivani, Mitchell Weinstock, Tristan Worsley, Wencai Zhang

### University of Nevada, Reno

Kiel Amen, Karena Carpenter, Pedram Roghanchi, Rahul Thareja

### University of Utah

Dhiman Bhattacharyya, George Chapin, Nathan Ellgen, Doni Esmay, Spencer Evans, Kaitlin Frary, Christian Hansen, Joshua Howard, Justin Lawrimore, Brenton Mumford, Brad Munns, Claus Nielsen, Olan Nielson, Jack Petersen, Thomas Pickett, Breanna Sanders, Kyle Spaulding, Michael Stine, Yan Wang, Jason Young

### Virginia Tech

Chelsea Barrett, Robert Bennett, Joseph Bright, Emily Casola, Chase Charron, Andrew Day, Adam Fox, Brian Knott, Carolyn Kosloski, Jason Ksanznak, Erin McCullough, Kevin Moreland, Kody-Lee Musick, Patrick Reeder, Jenna Spencer, Justin Stehle, Eric Warrell, Michael Wright

### West Virginia University

Rachel Boothby, Majid Mahmoodabadi



**Dennis Bryan**  
**2015-2016**  
**SME Foundation**  
**President**

As 2015 comes to a close, I want to thank all of the corporate and individual donors to the SME Foundation (SMEF). Because of your generous contributions and countless hours of volunteerism, SMEF is strongly positioned to assist in facing our industry's challenges in the coming years. During 2015, SMEF launched several new initiatives and looks forward to assisting SME members in their future educational and developmental needs.

Last fall, three Ph.D. candidates and two new university professors were awarded grants to continue their academic goals to serve and educate the next generation of mining engineers so that our industry may continue to prosper and meet the demands for the future. The Ph.D. Fellowship and Career Development Grant program is primarily funded by support from Freeport-McMoRan Inc., Robert Shoemaker, Caterpillar Global Mining, Kinross Gold and Royal Gold Inc. Great thanks to these donors for their vision to build a stronger industry through education.

Also in 2015, the Minerals Education Coalition (MEC) continued outreach at National Science Teachers Association conferences, National Engineering and Technology fairs and other industry events. New in 2015, MEC began the task of centralizing all K-12 educational resources concerning minerals and mining curriculum into one comprehensive website. The goal is to provide teachers and

students a "one-stop-shop" for the resources they need. The Professional Engineering (PE) licensure program conducted the PAKS test this year and now boasts the largest number of test questions banked with NCEES. This committed group has worked tirelessly to provide and conduct an exemplary licensure program. The ABET program providers conducted several visits to the mining and natural resources universities worldwide and continue to ensure education of the highest standards. Two grants of \$5,000 were awarded to Engineers Without Borders projects to foster SMEF's commitment to assist in worldwide humanitarian projects. Additionally, SMEF looks forward, once again, to awarding numerous scholarships to deserving SME students at the 2016 SME Annual Conference & Expo.

As the President of the SME Foundation, and on behalf of the entire SMEF Board of Trustees and SME staff, I thank you for your support to the programs that SMEF facilitates. I ask for your continued financial support of one or more Foundation programs in the year ahead to help strengthen and enhance our industry for the next generation. I look forward to seeing you all during our Annual Conference in Phoenix.

Thank you,  
Dennis Bryan

## SME Foundation

The mission of the SME Foundation is to be the funding source for education and outreach of SME and the community it serves. The Foundation achieves this by engaging with donors, both corporate and individuals; increasing participation of all trustees in the goals of the SMEF; working with universities to truly understand the needs of the industry; interacting with the general public to improve the perception of the industry; and attracting the young professionals of SME to engage and support the SMEF programs that have directly benefitted them. Together we can succeed in the long-term vision of the SME Foundation to fund the solutions to mining's challenges.

In April 2015, the Ph.D. Fellowship and Career Development Grant program was launched. A total of 50 qualified applications were received: 18 completed applications for the Academic Career Development Grant and 32 for the Ph.D. Fellowship Grant. The selection committee completed initial evaluations of the written materials and selected seven Ph.D. candidates and

five Career Grant candidates to be interviewed. All 12 candidates were interviewed during a two-day period. Two Career Grant nominees were selected by the committee, as well as three Ph.D. candidates. The recipients of the 2015 grants were:

### Career Development Grant

Aaron Noble – Assistant Professor, Dept. of Mining Engineering, West Virginia University; Emily Sarver – Assistant Professor, Dept. of Mining & Minerals Engineering, Virginia Tech

### Ph.D. Fellowship Grant

Russell Lamont – Mining Engineering, University of Kentucky; Christopher Roos – Mining Engineering, Montana Tech & University of Montana; Joshua Werner – Metallurgical Engineering, University of Utah.

The program allocates to each recipient:

- Career Development Grant - \$100,000 per year for a maximum of three years: provides assistant or associate professors with the

support towards achieving tenure and promotion.

- Ph.D. Fellowship Grant - \$60,000 per year for a maximum of four years: provides support to students with industry experience, and a desire to pursue an academic career, with the means of acquiring a doctoral degree.

### Creating Global Prosperity: The Campaign for Mining

The Creating Global Prosperity: The Campaign for Mining, started in 2013, continues to be the largest fundraising campaign for the SME Foundation. Headed by co-chairs Red Conger and Rick Whiting, the campaign has been widely publicized and continues to gain supporters. The message of supporting the industry and its professionals has been strengthened by the addition of several new programs. The campaign has slowly phased into the regular annual giving campaign. New brochures have been created with the Foundation's new tagline "Funding Solutions to Mining's Challenges."

SMEF would like to thank the Corporate Roundtable partners who contributed in fiscal year 2015:

- Freeport-McMoRan Inc. (\$200,000)
- Caterpillar Inc. (\$100,000)
- Newmont Mining Corporation (\$100,000)
- Alliance Resource Partners, LP (\$50,000)
- Joy Global (\$50,000)
- Rio Tinto/Kennecott Utah Copper, LLC (\$50,000)
- Royal Gold Inc. (\$50,000)
- Mining & Metallurgical Society of America (\$40,000)
- Bechtel Corporation (\$25,000)
- Cloud Peak Energy (\$25,000)
- Fluor Corp. (\$25,000)
- Imerys (\$25,000)
- Kinross Gold USA (\$25,000)
- Murray Energy Corporation (\$25,000)
- Vulcan Materials Company (\$25,000)
- Xcoal Energy & Resources (\$25,000)

New programs implemented or in development include:

- Launch of the Ernest K. Lehmann Memorial Scholarship.
- A Ph.D. Fellowship & Career Development Grant program was launched in April 2015 and three Ph.D. Fellowship candidates and two new university professors were awarded grants.
- The Miners Give Back program collaborated



with Engineers without Borders and awarded two \$5,000 grants to foster SMEF's commitment to assist in worldwide humanitarian projects.

The John T. Boyd Challenge has now been met by 91 individuals, companies, SME divisions and other entities who have contributed gifts to the Foundation of \$10,000 or more individually or \$50,000 as an organization. Lifetime giving is now being recognized through a multi-tiered program. At the 2016 SME Foundation Gala Dinner, the following people and corporations will be recognized:

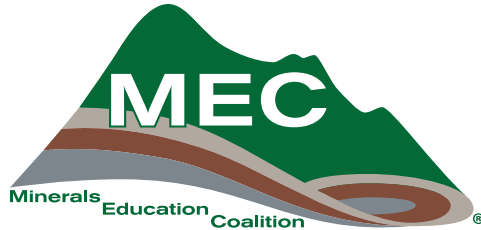
- Barbara A. Filas - John T. Boyd Challenge
- Patrick James - John T. Boyd Challenge
- Ronald Parratt - John T. Boyd Challenge
- William A. Wilson - John T. Boyd Challenge
- Stanley Dempsey - \$25,000
- Bart J. Hyita - \$25,000
- Caterpillar Global Mining - Emerald Circle (\$500,000)
- Newmont Mining Corp. - Emerald Circle (\$500,000)
- Freeport-McMoRan Inc. - Sapphire Circle (\$1 million)

### Fundraising

Fiscal year 2015 ended with contributions of \$1,591,748 reported on the SME Foundation financials. Funds were raised through a variety of methods including mailings, events and in-person solicitations. The fund with the largest growth was the Ph.D. Fellowship and Career Development Grant Program gaining support of \$749,975, which includes a \$500,000 gift from SME.

In the summer of 2015, the SME Foundation

*(Continued on page 36)*



The Minerals Education Coalition (MEC) is the K-12 education and outreach program of the Society for Mining, Metallurgy & Exploration Foundation (SMEF). Through the support of SME members, volunteers, sponsors and partnerships with like-minded mining and geoscience education organizations, MEC continues to grow, reaching more teachers, students and the general public with the message of the importance of mining and minerals in everyday life.

Led by chair Nancy Bingham and vice-chair Bob Kilborn, the 2015 MEC Committee provided the MEC with leadership and guidance in its operations, as well as its strategic direction going forward. MEC also recognizes individuals and organizations making meaningful efforts in education about minerals and mining, both within SME and as external partners. Learn more about the MEC Award winners at: [www.MineralsEducationCoalition.org/about-us#MEC Awards](http://www.MineralsEducationCoalition.org/about-us#MEC)

### Clearinghouse update: serving our audiences by providing diverse educational resources

MEC implemented the new strategic direction to make [www.MineralsEducationCoalition.org](http://www.MineralsEducationCoalition.org) the one-stop source for mining and minerals K-12 educational materials. MEC seeks the best available materials meeting key criteria, next sending the materials to the MEC Committee for approval. MEC collaborates with the source organizations to host or link to the materials. Educational materials from 12 collaborating organizations are now offered through the MEC website, with new items being added regularly. Additionally, teachers can now search MEC materials for national and state education standard correlations. The correlations are made by curriculum experts at EdGate Correlations Services and kept up-to-date. MEC curriculum materials can be searched by subject and standard at any time online.

### 2015 Website usage and plans for redesign in 2016

For calendar year 2015, the MEC website had

414,173 users viewing 1,151,691 pages. 47,589 outreach and educational materials were downloaded from the site, including handouts, lessons, activities and presentations. As a clearinghouse of mining and mineral educational resources, [www.MineralsEducationCoalition.org](http://www.MineralsEducationCoalition.org) links to other educational websites. In 2015, there were 10,444 outbound links to other educational content, including information on the Boys Scouts of America's Mining in Society merit badge. In addition to free educational resources, MEC offers low-cost materials online to supplement classroom instruction and for public awareness and community outreach. In 2016, [www.MineralsEducationCoalition.org](http://www.MineralsEducationCoalition.org) will be redesigned to better achieve MEC's goal to convey the importance of minerals and mining in everyday life. Design elements will enhance and facilitate MEC audiences' use of the website to locate the resources they need on mining, minerals, K-12 education and outreach.

### 2015 National Science Teachers Association (NSTA) Area Conferences

Each year, the Minerals Education Coalition (MEC) participates at three NSTA Area Conferences to provide K-12 educators educational resources. Through the support of SME members, mining companies and other geoscience organizations, MEC reached more than 2,000 educators in 49 states, Washington, DC, Canada and Beijing, China at this year's conferences. Thank you to outstanding leadership from SME members, including:

- October 22 – 24, Reno, NV: Jon Price, Dennis Bryan, N NV SME Section, and Mackay School of Mines SME student chapter.
- November 12 – 14, Philadelphia, PA: Matthew (Rocky) Severs, Mike Korb and Stockton University SME student chapter.
- December 3 – 5, Kansas City, MO: Kurt Oakes, SME St. Louis Section and MO University of Science & Technology SME student chapter.

### Earth Science Week Collaboration with the American Geosciences Institute (AGI)

MEC provided materials for the American Geosciences Institute's Earth Science Week (ESW), October 11 - 17, 2015. MEC submitted the following materials for distribution:

- MEC's new "Mining & Career Bookmarks" and Caterpillar Worldwide's "Ground Rules" Reclamation Activity were included in 16,000 educator packets.

- To strengthen partnerships with local and international geoscience organizations, SME and MEC attended the Denver ESW meeting. Interviews with mining professionals were created ([www.mineralseducationcoalition.org/careers-mining](http://www.mineralseducationcoalition.org/careers-mining)) and promoted by AGI.

MEC supports the local outreach efforts of SME members, sections and student chapters.

MEC has created a series of resources to support the local outreach efforts of SME members, sections and student chapters, increasing two-way communication about local outreach challenges, successes and outreach resources available through MEC.

- [www.MineralsEducationCoalition.org/SME-outreach-resources](http://www.MineralsEducationCoalition.org/SME-outreach-resources) provides easy access to resources available for local outreach, including free and low-cost materials, outreach ideas, funding, and recognition.
- SME Outreach Resources Community group allows members to share information on ideas for local outreach.
- Monthly MEC outreach conference calls began July 2015 and are open to all SME members, sections and student chapters. The calls provide a forum for the members to share and learn about local outreach.

### Social media

MEC audience grows through social media

- Facebook: 704 page likes
- Twitter: 150 followers
- YouTube: MineralsInYourLife channel: 123 subscribers

BSA's Mining in Society merit badge: Thanks to SME members for its success.

- [www.MineralsEducationCoalition.org/MiningInSocietyMB](http://www.MineralsEducationCoalition.org/MiningInSocietyMB)
- Mining In Society merit badges earned in 2014: 3,519
- YouTube: MiningInSocietyMB channel.



The SME Professional Engineers Exam Committee prepares problems for the Mining and Mineral Processing (M/MP) engineering examination for licensure as a Professional Engineer. The exam consists of 80 multiple-choice questions and is offered once each year in October. The committee sends problems and solutions to the National Council of Examiners for Engineering and Surveying (NCEES), which formats the exam and transmits it to the individual jurisdictions for administration. For years 2003 through 2015, examinee count equaled 57, 50, 47, 49, 42, 47, 71, 70, 75, 72, 81, 95, and 71, respectively.

We are experiencing stability and parallelism with commodity pricing in the PE Examination effort. Young people after obtaining the rigorous qualifications required for licensure (B.Sc. education minimum, FE exam, 4-5 years of qualifying experience, PE exam) are obtaining their licenses.

The percent passing the PE exam for first time examinees for the years 2003 to 2015 are 42, 75, 62, 84, 67, 80, 73, 78, 80, 75, 71, 89 and 75, respectively. Those taking the exam on a repeat basis have a passing percentage ranging from 23 to 59 percent for the past 13 years.

As of Dec. 31, 2015, two examinations have been partially or completely assembled. The October 2016 examination is assembled and will be pre-tested by SME PE Exam Committee members at the February 2016 Phoenix PE Workshop. The October 2017 exam framework is partially assembled and will be finished in draft form June 2016.

The 2015 exam was the seventh and final exam under the specification completed in 2008 as part of the periodic PAK study and cut-score analysis, the method of overall exam calibration that occurs every seven years. The M/MP specification and exams are performing well evidenced by all metrics.

As part of the PAKS process, a new study guide was developed in 2015 by eight PE Committee members (Kathy Altman PE Chair) and will be published January 2016. This SME book, *Study Guide for the Professional Licensure of Mining and Mineral Processing Engineers, Eighth Edition*, will be in its first printing.

The other PAKS 2015 major activity was the updating of exam specifications by a detailed process of surveying PEs in the field as to the required knowledge for our profession. The SME PE Committee then synthesized the 300 survey results to publish a revised set of specifications that will drive the exam for the next seven years. Major updates in the specifications included amplification of rock mechanics,

mill design and environmental engineering. The States of the Union ratified the new specs at the October 2015 meeting.

The review course for the 2015 exam was held in Denver in September 2015, under Dr. Raja Ramani's direction. Approximately 32 engineers completed the review course. The attendance is stable evidenced by the following graph.

Feedback from the participants continues to be excellent. Revenue generated by tuition more than covered the cost of conducting the review course. The next review course is scheduled for September 2016 in Denver.

The SME PE Exam Committee Coordinator attended the required EPE, NCEES meetings in Clemson, SC Jan. 9-10, 2015 and in Atlanta, GA Oct. 9-10, 2015 to report to the NCEES on the performance of the Mining / Mineral Processing PE exam. Also work is conducted on subcommittee charges of the EPE at these meetings.

The EPE stands for the Committee for Examinations for Professional Engineers. This committee is composed of 16 appointed Professional Engineers that represent the State Boards of Professional Registration. The States of the Union have primacy (the legislative authority) to license engineers, doctors, lawyers and other professionals. The two EPE meetings for 2015 had the following primary developments:

1. Updated policy on how long a question can remain in the active category for re-use. The policy is a question can remain in perpetuity as long as its performance remains satisfactory.
2. Establishing timelines for computerizing the PE Exam. Most engineering disciplines including Mining/Mineral Processing will have it completed in the 2020 timeframe. The computerization of the PE Exam also includes reducing the now multi-reference open-book exam to one electronic reference.

The four-year effort to write the second edition of the *SME Mining Reference Handbook* began in 2015. This effort is required by the states to represent the single reference that can be brought in the exam. Heather Dougherty, PE, and Dr. Andrew P. Schissler, PE are co-editors. 2015 activities included recruiting 16 chapter authors, coordination with SME Publishing and a project launch in November.

The SME PE Exam Committee continued participation in monthly meetings of the Licensing That Works committee. This committee is composed of engineering societies that oppose an initiative



**Professional Engineers  
Exam Committee**

**Dr. Rahul Bhaduri, PE, 2015  
Chair**

by various concerns to increase the educational credential for becoming a Professional Engineer from a Bachelor's degree to Master's or Equivalent education (MOE). The SME continues to oppose the MOE initiative working through the Licensing that Works (LTW) committee. Highlighted activities for 2015 include the defeat of a Vermont legislative proposal for MOE.

As of Dec. 31, 2015, 577 problems are in the bank for use on future exams, up from 401 in 2011. Seventy-three new problems were authored, reviewed and banked for 2015. The 49-member SME PE Exam Committee continues to perform excellently in writing and reviewing problems, and all the other duties of the group. Writing new problems is important, as each PE examination requires a minimum of 20 new problems (25 percent of the 80 questions in the multiple choice examination). The October 2016 exam has a record 30 new problems.

A special face-to-face meeting of SME PE Exam Committee occurred Friday to Saturday June 12-13, 2015 with 14 SME PE's attending. Problems were written and reviewed. Another such face-to-face meeting will occur at NCEES – Clemson in June 2016. NCEES reimburses travel for attendees.

Having two in-person meetings of the SME PE Committee increases productivity and follows the practice of the other 17 US engineering societies.

On Sunday, Feb. 21, 2016, the PE Exam Committee will hold its regular meeting and workshop in conjunction with the SME Annual Conference. The workshop will be at the Phoenix hotel headquarters. The 2016 exam will be pre-tested and problems reviewed. Because the critical 2016 exam will be the anchor exam for the next seven years, a more substantial pre-test will take place on Saturday, Feb. 20.

In 2015, Dr. Andrew Schissler PE served as a Subject Matter Expert on a committee sponsored by the U.S. Department of Labor charged with writing competency standards for U.S. engineers of all disciplines. The SME Board of Directors approved the formation of a committee in September 2015 to populate competency standards for engineering-specific mining and mineral processing. The committee will meet at Phoenix and have begun work.

Heather Dougherty, PE, is the 2016 PE Committee Chair, Rahul Bhaduri, PE, has been the Chair for 2015, and Randy Reed, PE, is the Chair-elect for 2017.



The 2015-16 ABET Board of Directors met on Oct. 17-18, 2015 at ABET headquarters in Baltimore, MD.

#### Board of Directors rules of procedure

The Board of Directors approved the draft Board of Directors Rules of Procedure with an amendment to section B.3.c. The amendment allows Delegates and Alternate Delegates to serve as a consultant on accreditation matters to a program or institution while maintaining compliance with ABET's Conflict of Interest Policy.

#### Transition Task Force

Larry Jones summarized Transition Task Force activities. Initial logistics planning meeting to implement the approved restructure took place at the ABET Symposium in April 2015. The task force worked closely with ABET staff to generate test case scenarios and develop draft processes for possible issues resulting from the restructure. The Rules of Procedure for the board of delegates and board of directors have been drafted and have been approved by the respective bodies at the October 2015 meetings.

#### Academic Advisory Council (AAC)

Jeff Ray, Chair of the AAC, presented an update on AAC's activities since the last board of directors meeting. The AAC has made recommendations for improvement, including consolidation of Criterion 3, proposed new language in APPM regarding materials presented during visits, and harmonization of ABET multi-commission visits. Broader issues discussed included competency-based education, and an ad hoc committee on diversity and inclusiveness was created.

#### Industry Advisory Council (IAC)

Dwight Beranek, Chair of the IAC, presented an update on the IAC's activities since the last board of directors meeting. He reported that the IAC has new members from AECOM, GM and IBM. The IAC continues to focus on recruiting more members and new industry PEVs by contacting industry groups and employers. Effective Nov. 1, 2015, Charles Menke will be the new IAC chair, and Beranek will chair the IAC's Nominating Committee.

#### Board of Delegates

Wayne Bergstrom, chair of the board of delegates,

provided an update from the first meeting of the board of delegates and area delegation. The Board of Delegates Rules of Procedure have been approved with amendments. Additional work is needed to streamline the implementation of the approved restructure.

#### Report of the Treasurer

Craig Musselman, treasurer and finance committee chair, presented a recommended change from the finance committee regarding ABET Financial Policy 6 – direct cost center. This recommended change states that all global outreach and executive office activities conducted for the purpose of promoting ABET accreditation outside of the United States shall be a direct expense of non-U.S. accreditation. This recommendation was approved by the board of directors.

#### Strategic Planning Committee

Michael Milligan, ABET executive director and CEO, began by sharing a presentation on ABET's recent rebranding effort as background information the strategic planning discussion. Larry Jones, president, then provided background information on ABET's current strategic plan.

#### Federal Issues Affecting Accreditation

Charles Hickman, managing director, constituent relations, declared that public and employer understanding and perceptions of accreditation systems are being significantly undermined by high profile, but often undifferentiated, criticisms by some presidential candidates and other elected officials, as well as by unbalanced reporting in national media outlets. Unless these assertions are more effectively countered, he said they pose a potential threat to ABET's standing among important external stakeholders. Resulting board of directors discussion centered on questions including, "What market segments would be the target audience of a more systematic ABET messaging initiative and why? How many financial and staff resources would be required, and for what time period? Would any allied organizations (e.g.: CHEA, ASPA, AACSB) be open to a cooperative role in an outreach effort? How would the impact of ABET efforts to address these issues be measured? What might be the possible consequences if ABET does not respond to the external dialog that is occurring?" These issues will be further discussed by the Directors during the January 2016 Strategic Planning meeting.



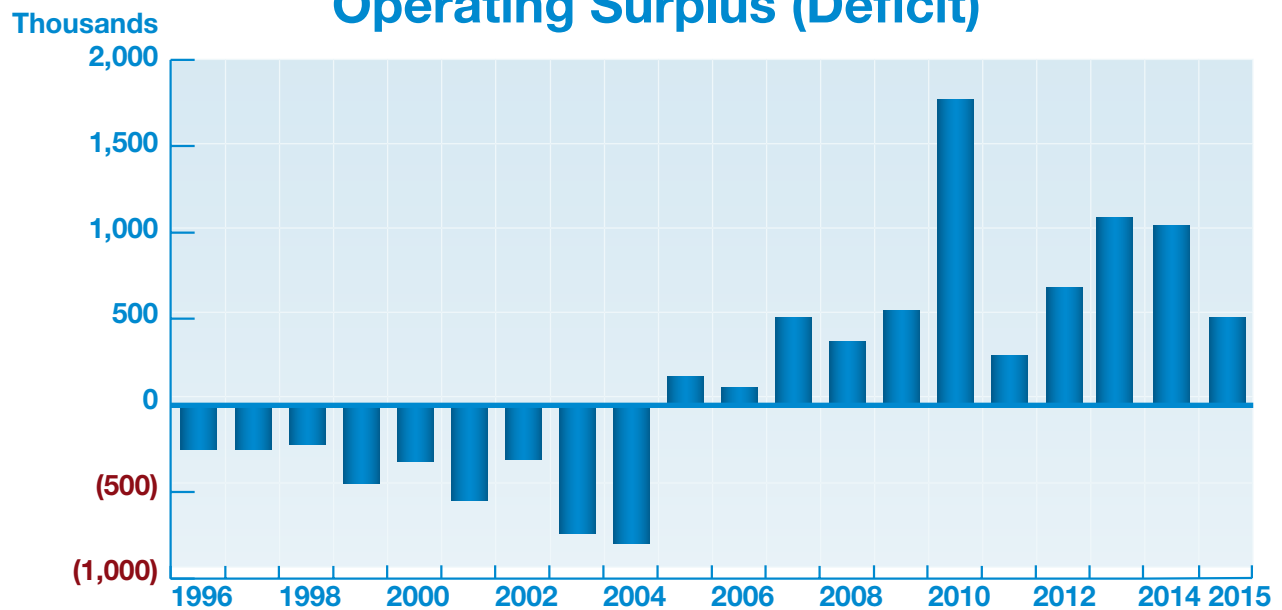
Fiscal 2015 revenue from operations was better than last year by 7 percent and was less than budget by 2 percent. Operating surplus was 6 percent better than budget. This marks the eleventh consecutive year of operational surplus.

Aggressive management of SME continues to look

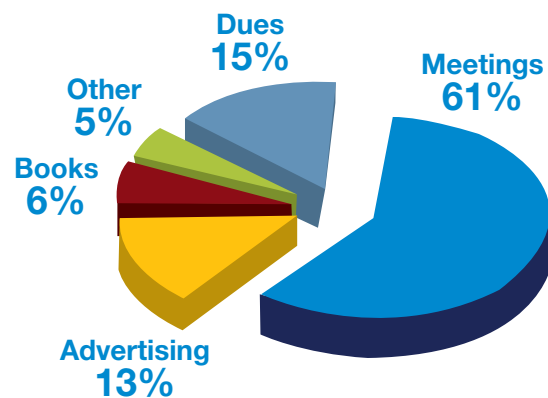
for opportunities, and a willingness to work with others has translated to a better financial position for SME.

Net assets for all entities of fiscal year 2015 exceeded \$27 million.

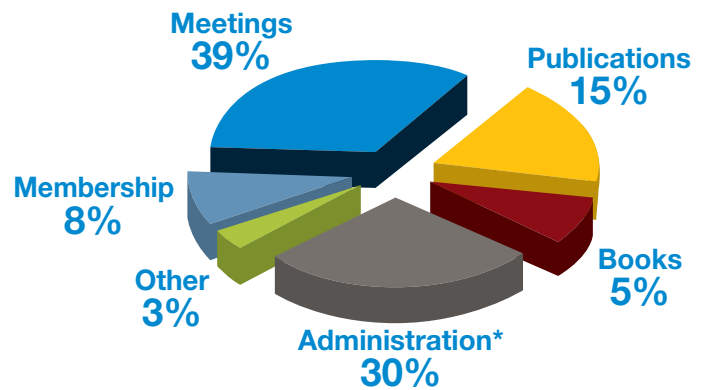
## Operating Surplus (Deficit)



## Operating Revenue (Sources)



## Operating Expenses



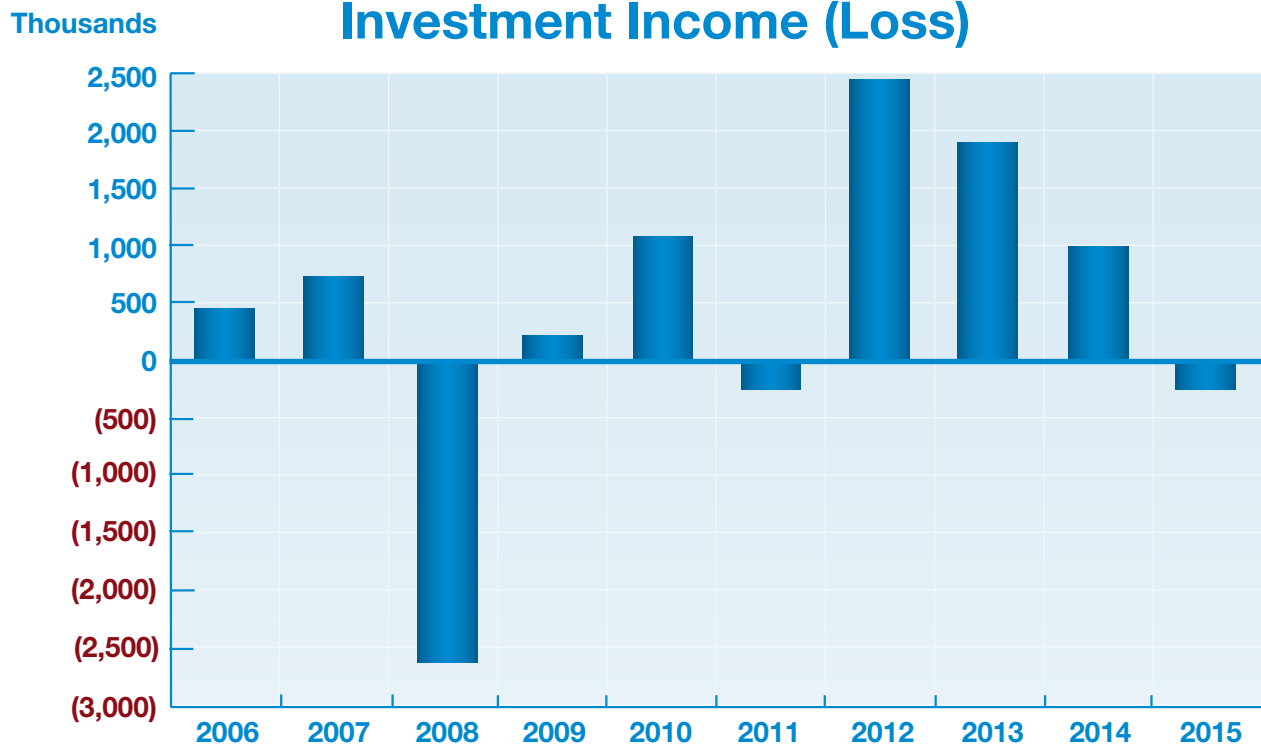
\* Administration includes: Administration, accounting, customer service, IT, government affairs and web activities.

## Cash and Investments



WAAIME merger with SME in 2008 included \$8.2 million in new investment dollars. Approximately \$14.6 million of investments are restricted for specific activities of the SME Foundation, SME division activities and WAAIME scholarships.

## Investment Income (Loss)



## AIME Awards

AIME Honorary Member	John N. Murphy
AIME Honorary Member	James R. Arnold
AIME Presidential Citation	George W. Luxbacher
Frank F. Aplan Award	David Osborne
Mineral Economics Award	David R. Hammond
Mineral Industry Education Award	Courtney Young
James Douglas Gold Medal	Daniel Kappes
Charles F. Rand Memorial Gold Medal	J. Brett Harvey

## SME Awards

Scout Miner Award	Frank McCallister
Robert M. Dreyer Award	Donald Ranta
WAAIME Founder's Award	Veronica Yovanne Brahm
SME Distinguished Member	Jon Kellar
SME Distinguished Member	Robert Washnock
SME Distinguished Member	Corby Anderson
SME Distinguished Member	Joseph Zelanko
SME Distinguished Member	J. Steven Gardner
Outstanding Student Chapter	West Virginia University
President's Citation	John Marsden
President's Citation for Local Section Service	Romulo Mucho
Ivan B. Rahn Education Award	Pam Wilkinson
Robert H. Richards Award	Robert Dunne
Past President's Plaque	J. Steven Gardner

## SME Foundation Awards

MEC Leadership Award	Kenneth J. Reid
MEC Organization Recognition Award	SME Pittsburgh Section
MEC Partnership Appreciation Award	Daphne D. LaPointe
MEC Student Chapter Award	Universidad Nacional Mayor de San Marcos - Lima, Peru
Syd S. Peng Ground Control in Mining Award	Xie-Xing Miao

## SME Division Award Recipients

### Coal & Energy Division Awards

Coal & Energy Division Distinguished Service Award	Joe Zelanko
Erskine Ramsay Medal	John Murphy
Percy Nicholls Award	Yoginder Paul Chugh
Stefanko Best Paper Award	Steven Tadolini, Bhagwat, Derycke, Hanselaer
J.W. Woomeer Young Engineer Award	Brian O’Dea
Coal & Energy Division Past Chair Award	Thomas Novak

### Environmental Division Awards

Environmental Division Distinguished Service Award	Anne Williamson
Environmental Stewardship	O. Eugene Kitts
Environmental Division Past Chair Award	Alicia Duex

### Health and Safety Division Awards

Individual Excellence Award	Larry Grayson
Operational Excellence	Dugout Canyon Mine
Research and Educational Excellence	National Industrial Sand Association
Health and Safety Division Past Chair	Eric Lutz

### Industrial Minerals & Aggregates Division Awards

Industrial Minerals & Aggregates Distinguished Service Award	SA Ravishankar
Industrial Minerals & Aggregates Division Young Scientist Award	Hyunjung Kim
Robert W. Piekarz Award (Industrial Minerals)	Vishal Gupta
Industrial Minerals & Aggregates Division Past Chair	Rajesh Raitani

### Mineral & Metallurgical Processing Division Awards

Antoine M. Gaudin Award	Ron Woods
MPD Outstanding Young Engineer	Emily Sarver
Arthur F. Taggart Award	Michael Brittan and Gustavo Plenge
Milton E. Wadsworth Award	David Dreisinger
Mineral & Metallurgical Processing Past Chair	Richard Johnson

### Mining & Exploration Division Awards

Ben F. Dickerson Award	Raja Upadhyay
Mining & Exploration Division Distinguished Service Award	Steve Holmes
Daniel C. Jackling Award	Will Wilkinson
Mining & Exploration Division Outstanding Young Professional Award	Jamie Torske
Robert M. Peele Memorial Award	Russell Sheets
Miner of the Year	Tom Goodell
Rock Mechanics	Ian Farmer
M&E Division Program Area Managers	Jeff Cornoyer, Greg Sutton, Matt Blattman & Mike Armstrong
William L. Saunders Gold Medal	Ron Parratt
M&E Division Past Chair	Samuel Shoemaker

## Coal & Energy Division Scholarship

**Aayush Anand**  
*Indian School of Mines*

**Andrew Hanneke**  
*Missouri University of Science & Technology*

**Aubrey Athey**  
*Virginia Tech University*

**Crystal Darger**  
*University of Utah*

**Daniel VanOverbeke**  
*South Dakota School of Mines & Technology*

**Danielle Taran**  
*University of Arizona*

**Donald Francescon**  
*Southern Illinois University at Carbondale*

**Joel Patton**  
*Montana Tech of the University of Montana*

**John Cybriwsky**  
*University of Kentucky*

**Rahul Deshmukh**  
*Indian School of Mines*

**Sharans Kabra**  
*Indian School of Mines*

**Shubham Kankane**  
*Indian School of Mines*

**Sunny Soarabh**  
*Indian School of Mines*

**Walter Price**  
*Pennsylvania State University*

## John Sidney Marshall Memorial Scholarship (AIME/Coal & Energy Division)

**Carolyn Kosloski**  
*Virginia Polytechnic Institute & State University*

**Auston Diericx**  
*Southern Illinois University at Carbondale*

**George Chapin**  
*University of Utah*

**Nathan Ellgen**  
*University of Utah*

**Steven Piippo**  
*Montana Tech of the University of Montana*

**Spencer Evans**  
*University of Utah*

**Joseph Bright**  
*Virginia Tech*

**Kaylor Peratt**  
*Colorado School of Mines*

**Chelsea Barrett**  
*Virginia Tech*

## Environmental Division Scholarship

**Gireesh Subramaniam Sankara Raman**  
*Pennsylvania State University*

**Robert Bennett**  
*Virginia Polytechnic Institute & State University*

**Levi Willard**  
*University of Arizona*

## Veolia Water Solutions and Technologies Scholarship

**Victoria Johann**  
*Virginia Tech University*

## Industrial Minerals & Aggregates Division

## Gerald V. Henderson Memorial Scholarship

**Deepak Kahtri**  
*Indian School of Mines*

## Mineral & Metallurgical Processing Division

## Richard Klimpel Memorial Scholarship

**Mark Mazzucco**  
*South Dakota School of Mines*

**Alexandra Anderson**  
*Colorado School of Mines*

**Jordan Rutledge**  
*Colorado School of Mines*

## Mining & Exploration Division Scholarships

**Kevin Moran**  
*Colorado School of Mines*

**Kathleen Tew**  
*South Dakota School of Mines & Technology*

## Eugene Pfeider Memorial Scholarship

**Robert Murray**  
*University of British Columbia*

## Steven C. Potter Scholarship

**Matthew Aboagye**  
*New Mexico Institute of Mining and Technology*

## Henry DeWitt Smith Scholarship (AIME/Mining & Exploration Division)

**Asseu Gilbert Yapo**  
*Montana Tech of the University of Montana*

## Stewart R. Wallace Memorial Scholarship

**Chelsea Pomeroy**  
*Colorado School of Mines*

## 2015 SME Foundation Scholarship Recipients

### J.H. Fletcher & Co. Scholarship

**Robert Murray**  
*University of British Columbia Also Pfeider*

**Andrew Gabrysiak**  
*New Mexico Institute of Mining and  
Technology*

### McIntosh Engineering Scholarship

**George Chapin**  
*University of Utah*

**Crystal Drager**  
*University of Utah*

**Jake Colby Seiter**  
*University of Utah*

### MMSA/SMEF Presidential Scholarship

**Chase Charron**  
*Virginia Polytechnic Institute and State  
University*

**Olan Nielson**  
*University of Utah*

### Syd S. and Felicia F. Peng Ground Control in Mining Scholarship

**Aditya Mishra**  
*Southern Illinois University at Carbondale*

**Mehdi Rajaeabaygi**  
*West Virginia University*

**Derrick Chambers**  
*University of Utah*

*WAAIME Division Scholarships are listed on page 23*

## SME Foundation

*(Continued from page 25)*

received its first Estate Planning gift from SME member Robert Shoemaker. Shoemaker gifted \$1 million to the SME Foundation in the amount of \$100,000 per year until his passing. The majority of this gift is appropriated to the Ph.D. Fellowship & Career Development Grant Program (with naming rights). In appreciation of this gift, and future others, the SME Foundation Legacy Club has been created.

Mr. Shoemaker was honored at the 2015 SME Foundation Gala dinner. On January 11, 2016, Mr. Shoemaker died peacefully at his home in Grass Valley, CA. His family and this generous gift will be honored at the 2016 SME Annual Conference. The balance of Mr. Shoemaker's gift, \$780,000 was paid to the SME Foundation.

### Miners Give Back

Miners Give Back partnered with Engineers without Borders (EWB) in 2015 to leverage EWB's global network of on-the-ground engineers in developing countries that implement multiple projects to address the needs identified by a community. EWB works directly with the community to assess, design, implement, monitor and evaluate appropriate engineering solutions for small-scale infrastructure projects such as water supply, sanitation, civil works, structures, energy and agriculture. EWB's mission compliments that

of MGB's; to support world-wide initiatives focused on humanitarian efforts that tangibly improve the lives of individuals and inspire a commitment to give back to the local community.

Once EWB compiles applications meeting SME Foundation's criteria, the ad hoc Miner's Give Back selection committee comprised of Chair Jessica Kogel, George Luxbacher, Mike Trevits, John Murphy and Marc LeVier reviewed the applications and made a recommendation for funding.

Current projects that Miners Give Back has funded:

- Fall 2015: The University of Florida chapter of Engineers Without Borders has been awarded a \$5,000 grant to improve the water supply for the village of Khanalthok, Nepal. The grant will enable volunteers to design and implement a sustainable solution to the lack of readily available, potable water in combination with low sanitary practices at the local school.
- Spring 2015: The Engineers without Borders Chapter of the Southern Illinois University at Carbondale's water supply project in Las Mojarras, Guatemala. This project is led by two SME student members from SIU. The Guatemalan Water System Expansion Project seeks to address the lack of clean, usable water for the residents of Las Mojarras.





SME

Society for  
Mining, Metallurgy  
& Exploration<sup>®</sup>

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