

2014
ANNUAL REPORT

SME



2014 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



John O Marsden
2014 SME President

2014 has been a year of mixed sentiments for SME and its membership. The SME organization achieved its tenth consecutive year of operating surplus, following nine consecutive years of operating losses (1996 and 2004). Membership has continued to grow at a slow but steady rate. SME paid down all of its debt in mid-2014, including the debt incurred as a result of the highly successful relocation to new offices in Englewood, CO. We advanced a number of key initiatives to update SME's infrastructure, and to improve product and services delivery capability during the year. However, on the down side, the mining industry continued to encounter strong headwinds, with sustained downward pressure on commodity and precious metal prices, and upward pressure on the cost side of the equation, significantly affecting both capital and operating costs. These factors have impacted all areas of the mining industry; explorers, developers, operators, equipment vendors, consultants and service suppliers. Also, we witnessed an opportunistic "war on coal," which has devastated the U.S. coal industry, and this has continued unabated in the absence of a rational national energy strategy. SME members must deal with these challenges, and others, on a daily basis and it is important that SME provide effective support to all areas of membership during such difficult times.

During 2014, SME moved forward with a comprehensive redesign of the organization website, seeking to make this a more effective and relevant portal for members (and nonmembers) to access SME products and services. In addition, and in parallel with the website redesign, the implementation of a new management system was advanced that will make SME more efficient and streamline in delivering its products and services. Both of these key infrastructure projects are on track to be delivered by second quarter 2015. It is important to note that these projects are being funded out of the SME operating surpluses and no debt will be incurred for their implementation.

The SME board approved the endorsement and adoption of the National Mining Association's CORESafety partnership program. This program provides an approach to mining safety and health to prevent accidents and incidents before they occur. The objective is to achieve zero fatalities and a 50-percent reduction in the mining industry injury rate within five years: "0:50:5." This is an important partnership for our members to embrace what can be used to supplement and guide member companies own initiatives in this area.

Another excellent initiative that was advanced significantly in 2014 was the outreach efforts driven by the Government and Public Affairs Committee of SME. The first congressional fellow, Dr. Josh Hoffman, was installed in Washington D.C. to represent SME during the 2014-2015 legislative session. He was assigned as a mining resource advisor to the staff of the House Committee on Natural Resources' sub-committee on Energy and Mineral Resources on Oct. 1, 2014. This program will be continued in 2015-2016 with a second congressional fellow to be selected in 2015.

SME's leadership in mining-related publications continued during the year. *Mining Engineering* and *Tunneling & Underground Construction* magazines are among the premier industry news publications in their sectors, and *Mineral & Metallurgical Processing*, edited capably by Komar Kawatra, continues to improve content and distribution. Several new books were published during the year, although it is important to note that book sales revenues declined (23%) as a result of the prevailing economic conditions and cost headwinds for members. Most significantly, the OneMine.org digital library was further expanded, adding more than 36,430 pages of new documents into the database, bringing the total number of available books and publications to 109,440. This online technical information source is frequently stated to be the most useful SME product in member surveys. OneMine.org is supported by SME, The Australasian Institute of Mining and Metallurgy (AusIMM), the Southern African Institute of Mining (SAIMM), the Minerals, Metals and Materials Society (TMS), the Deep Foundations Institute (DFI), the International Marine Minerals Society (IMMS) and the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), with the latter organization joining this collaborative effort in 2014. SME staff is working diligently to further expand this capability.

While we are on the subject of collaboration, SME continues to actively participate in the Global Mining Professionals Alliance (GMPA), along with AusIMM, CIM, SAIMM and IOM3 (UK). This alliance has been established to facilitate professional development for industry professionals across international boundaries and to ensure that members of individual societies have the best possible access to products and services.

In 2013, the SME Board of Directors and strategic committees identified education sustainability for core mining industry degree programs as a critical issue. In 2014, an Education Sustainability Committee was formed to develop a plan to address this, under the talented leadership of Hugh Miller and Courtney Young. The resulting Faculty Development Program was approved by the SME board and SME Foundation trustees in late 2014. This program provides a framework for significant funding for: 1) SME PhD Fellowships, and 2) SME Career Grants (for post-doctoral research) to support qualified and selected candidates seeking to work toward tenure professorship positions in mining engineering, mineral processing/metallurgical engineering and geological engineering. The candidates must commit to study at qualified U.S. universities that offer the relevant programs. SME expects that this program will provide a major boost to mining-related faculty development in the United States, with medium- to long-term benefits for undergraduate enrollments and graduate supply to the industry. However, this is not a short-term program and it will require support for an extended period (minimum of seven years) to be successful.

This leads us to the continued success of the SME Founda-

(Continued on page 36)

SME is decades old, but the last decade is a real testament to the members and staff of the organization whom I have had a tremendous privilege and honor to work with. The past decade of success is the result of change that has improved the value to SME members, enhanced the SME reputation and allowed partnerships that were not possible before. All of these changes have been a direct result of outstanding SME presidents, boards, members and staff who have communicated and executed on the needs of the organization.

The following pages define the efforts of the Society during 2014. We have made good progress on our journey of change to follow the vision and mission the Society leadership has envisioned for the organization. I encourage you to take a careful look at the reports, which cover many of the current SME programs, technical activities, professional support and financial outcomes of the Society.

In 2014, the SME leadership again revisited the SME Strategic Plan (page 1) to firmly establish the best path forward to ensure that SME succeeds and has success in meeting its core purpose. During our meetings, the SME board recognized that several goals have been achieved from previous strategic plans and dropped those. New ones were added that will ensure the Society's future relevance and those goals will be worked on and developed over the next few years.

SME has been able to deliver many years of improved operations, resulting in significant growth for the organization. But now our new programs and structures will be tested as the overall mining industry has seen some recent turbulence. Peter Drucker said, "The greatest danger in times of turbulence is not the turbulence . . . it is to act with yesterday's logic."

I believe that SME is well-positioned to move through these turbulent times, but it may very well take some different action or direction than we have followed during the past decade, and the SME leadership is well structured to make those decisions.

Going forward with the next strategic plan, SME remains committed to improving member satisfaction as our number one strategic priority. Members are telling us what they like, but we also hear their concerns. We still have a long way to go

to get to 100 percent customer satisfaction and to have all of our members tirelessly advocating for SME.

To better match the myriad of demands, SME has engaged with all types of groups this year. I'm pleased to say we now have an SME administrator working from Lima, Peru. SME has growing membership in South America, and this will only help with the support and service to members in Peru and the rest of South America. Student chapters have grown this year, with SME now having more than 40 student chapters, with 50 percent of those outside of the United States.

Students and young professionals are the future of our industry, and our Society. We must support these groups and encourage their growth and development so that the mining industry can be positioned to grow and regain some of its earlier prominence, because the importance has never diminished.

One of SME's core purposes is to ensure there is a linkage between university's mining and metallurgical programs and industry. I'm pleased to say SME is taking a leadership role in supporting the replacement of university faculty and faculty development. The SME Foundation in the past few months has committed \$8.5 million to Ph.D. fellowships and career-development grants. These two programs will provide universities with hope that we will have faculty replacements in the near future as well as assist assistant and associate professors with securing tenure. This is an amazing commitment that should help the global mining industry.

Lastly, I want to recognize and thank the SME staff for all the work that is completed on behalf of SME members and stakeholders each day. SME currently has 52 staff members who bring a host of skills and talents to the organization to ensure that we continue to grow and support all of the people who desire to use SME services and products.

Change and improvement will continue for the Society to stay current and relevant. John F. Kennedy once said, "Change is the law of life and those who look only to the past or present are certain to miss the future." I look forward to another decade of change, growth and opportunity for SME.



David L. Kanagy, CAE
SME Executive Director

2014 SME Board of Directors



John O. Marsden
2014 President
Metallurgium



J. Steven Gardner
President Elect
ECSI LLC



Jessica Elzea Kogel
Past President
Imerys Pigments &
Additives Group



David L. Kanagy
*Secretary
and Treasurer*
SME



Marc A. Herpfer
Director
Oil Dri Corp.



Hugh B. Miller
Director
Colorado School
of Mines



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



Timothy Arnold
2016 SME President
Nevada Copper
Corp.



William Edgerton
Incoming Director
Jacobs Associates



Bill Warfield
Incoming Director
Atlas Copco

Strategic Committees

Outreach Strategic

Steven Holmes
Chair, KGHM International Ltd.

Robert Washnock
Freeport-McMoRan

Mary Walker
Freeport-McMoRan

Donald Dwyer
Barrick Goldstrike

John English
John English Consulting

Michael Rowe
Resource Capital Funds

Eric Wang
Jacobs Engineering Group Inc

Finance Strategic

James Komadina
Chair, Retired

J. Steven Gardner
2015 SME President ECSI LLC

Mark LeVier
Great Western Minerals Group

Ross Bhappu
Resource Capital Funds

Gordon Stevens
Patrick Engineering Corp.

Ryan Murray
Murray Energy

Tim Swendseid
RungePincockMinarco

Education and Professional Development

Mary Korpi
Chair, Newmont Mining Corp.

Timothy Hilderman
Minova

Thom Seal
Barrick Professor, University of Nevada-Reno

Michael Trevits
NIOSH

Kramer Luxbacher
Virginia Tech

Manoj Mohanty
Southern Illinois University

Abani Samal
Rio Tinto Exploration

Nominating Strategic

John Marsden
SME President and Chair, Metallurgium

J. Steven Gardner
SME President-Elect, ECSI LLC

Rick Honaker
University of Kentucky

Hugh Miller
Colorado School of Mines

Dan Alexander
Retired

Mark Herpfer
Oil Dri Corp. of America

Amy Jacobsen
Bebre Dolbear Management Consulting

Sam Shoemaker
Member, Barr Engineering

Products and Services

John Wiebmer
Caterpillar Inc.

Holly Bellmund
US Silica Co

Robert Reisinger
CH2M Hill

Charles Beasley
Perry Supply

Gary Buchan
NIOSH

Thomas Gray
Tetra Tech Inc

Jess Kindler
PT Atlas Copco Nusantara

Structure and Governance

Marc Herpfer
Chair, Oil Dri Corp of America

Ronald Parratt
Renaissance Exploration

David Tyler
Coeur Mining

Daniel Eyde
St. Cloud Mining Co

Charles Kliche
South Dakota School of Mines and Technology

S.A. Ravishankar
Cytec Industries

Genevieve Bodnar
Doe Run Co.

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 becoming a resource for, the staffs of the House Natural Resources Committee and Senate Energy and Natural Resource Committee, among others.

GPAC issued the following two technical briefing papers in 2014, bringing the total number published to 14:

- Workforce Trends in the U.S. Mining Industry.
- Safe and Effective Use of Cyanide in the Mining Industry.

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 May, GPAC staff participated in congressional visits in Washington, D.C. and held separate meetings with the staff of National Stone Sand and Gravel Association (NSSGA), the Congressional Western Caucus, mining reporters from BNA Bloomberg and GPAC members at the World Bank.

In June, SME, working with the government affairs staff at the National Mining Association (NMA), was able to secure a Congressional letter signed

by 13 members of the House Financial Services Committee in support of SME's 2012 petition for rulemaking to force the U.S. Securities and Exchange Commission (SEC) to revise and reissue Industry Guide 7. As a result of this effort, and continued individual pressure applied by SME on the SEC, the SEC requested help from SME to secure qualified candidates for an academic fellowship to begin work on the rulemaking process. SME was able to help garner applications from 14 industry professionals for this 12-18 month detail at the SEC offices in Washington, D.C., beginning in 2015.

In July, GPAC staff led an orientation in Washington, D.C. for SME's 2014-2015 Congressional Fellow, Dr. Josh Hoffman. Hoffman was introduced to staff at NMA, IMA-NA, AGI and the National Research Council, as well as professional legislative majority and minority staff of the House and Senate Natural Resources Committees. Hoffman began his one-year Fellowship in September 2014 working for the House Natural Resources' Subcommittee on Energy and Mineral Resources.

In August, SME was able to secure as a luncheon speaker at the Critical Minerals Conference in Denver, CO, Kathy Benedetto, Senior Legislative Staff of the House Subcommittee on Energy and Mineral Resources. Benedetto's topic was "Critical Minerals and Public Policy: A View from Capitol Hill."

In December, SME opened the application process for qualified candidates for the second Congressional Fellowship for mining. SME's Fellow will again be located in an office of a member of Congress or a Congressional committee in Washington, D.C. beginning in September 2015. The final candidate will be introduced to the SME Board of Directors at the 2015 Annual Conference in Denver, CO.

SME Membership found a significant challenge with dips in several mining sectors in 2014, but had a year-end membership of 15,188, 72 fewer members than in 2013, despite anecdotal evidence suggesting the industry has been reducing its workforce.

As shown in the graphs, several divisions have seen an uptick in membership in 2014 but the largest change was a reduction in the Mining & Exploration Division.

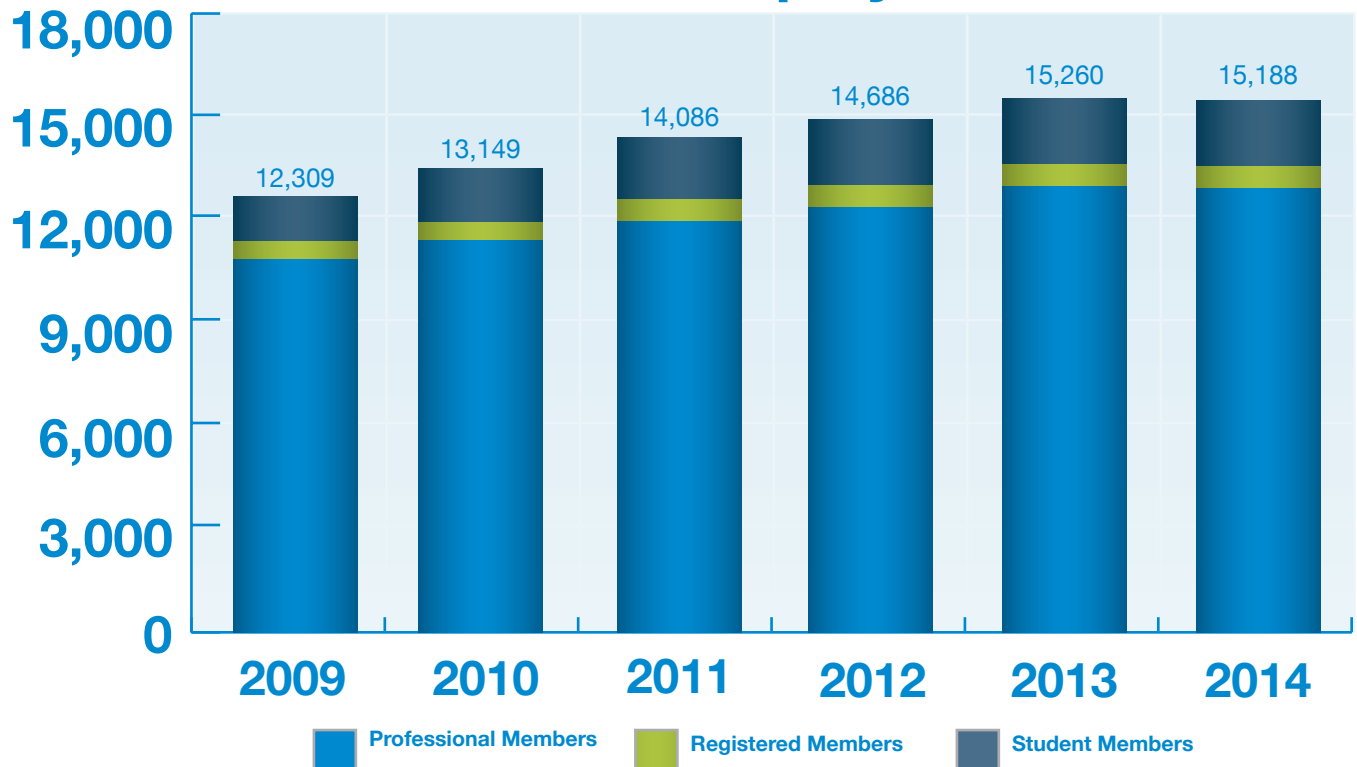
The successes in 2014 include the addition of several new sections and student chapters, with much of that growth coming internationally. SME currently has 40 student chapters in the United States, Canada, Mexico, Peru, Chile, Colombia, the Netherlands, India, Australia, Africa and Iran. These additional groups helped offset a significant drop in international professional members, attributable in part to the shuttering of operations in parts of the world.

SME also saw considerable growth in the Associate Under-30 category. This reflects an increased awareness through digital and word-of-mouth channels for a more tech-networked community.

SME exhibited at several events during 2014 in



Membership by Grade



the United States and Canada 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 2014, SME recruited more than 500 new members at a host of conferences. The SME Annual Meeting and Exhibit in Salt Lake City, UT alone brought in 350 new members.

In 2015, the Membership Department will be restructured for more retention and growth. More emphasis will be made for lead generation, lead management, recruiting and retention. The intent is to build a qualified prospect database, talk to prospects about relevant topics and increase

retention year-over-year. With the implementation of the new Personify database and a more user-friendly website, membership will have better opportunities for prospect and member engagement.

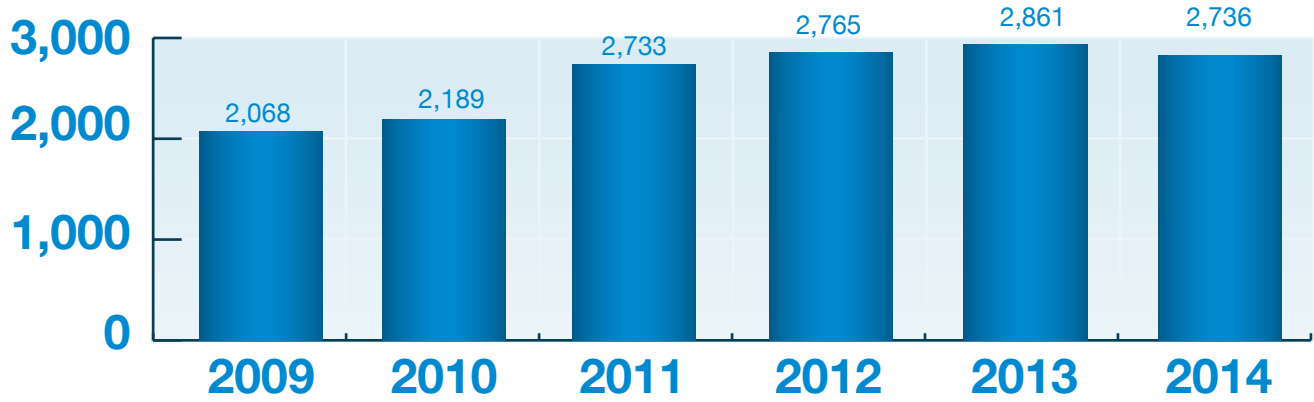
The Membership Department has been challenged to grow membership by 5,000 new members in the next six years. New tactics, tools and techniques will be added to serve both an aging membership and a younger, tech-savvy worker population.

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.

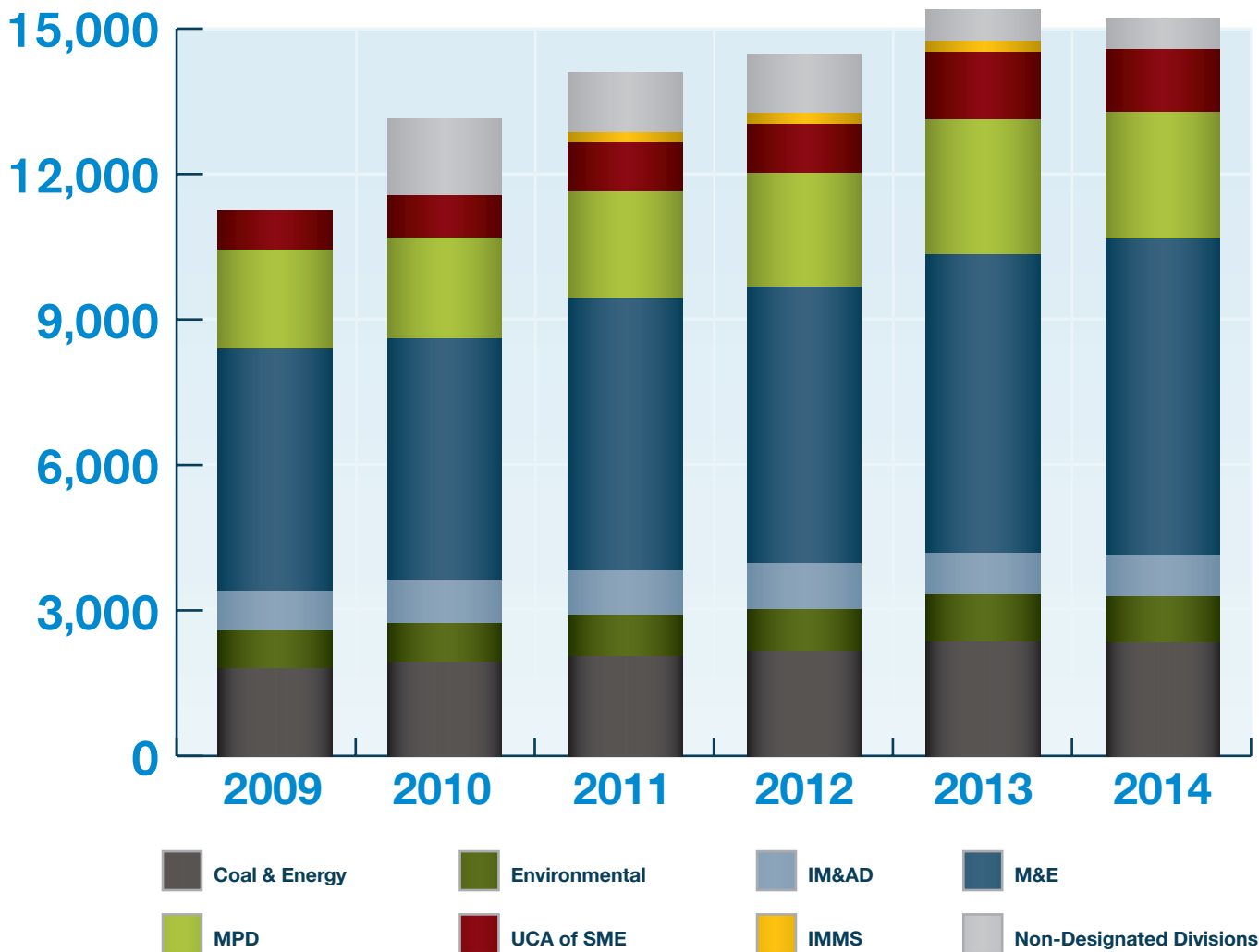
Legion of Honor Members

Robert Aker, Gilbert, AZ	James Gleason, Sarasota, FL	Brian McGunagle, Grand Junction, CO
Richard Atkinson, Vancouver, BC, Canada	Locke Goldsmith, W. Vancouver, BC, Canada	Purnendu Medhi, Casa Grande, AZ
Joel Beckman, Youngstown, OH	John Gomes, Reno, NV	Frank Mooney, Denver, CO
Alexander Bennet, Hawthorn, VIC, Australia	Thomas Grose, Golden, CO	Jerome Motz, Milwaukee, WI
Allen Born, Denver, CO	Jaime Ground, Muzquiz, COA, Mexico	Roger Newell, Golden, CO
James Brown, Abingdon, VA	Donald Hathaway, Asheville, NC	John Olin, Golden, CO
Albert Chandler, Bangkok, Thailand	Allen Hatheway, Rolla, MO	Terry Perkins, Salem, MO
Eric Cheney, Shoreline, WA	Christian Hesse, Los Angeles, CA	Walter Phillips, Anchorage, AK
Thomas Cherrier, Salida, CO	Larry Hoffman, Butte, MT	John Postle, Oakville, ON, Canada
Kenneth Clifford, N. Salt Lake, UT	Winfred Hurley, Saint Louis, MO	James Robison, Phoenix, AZ
Marshall Cloyd, Houston, TX	Richard Ivy, Las Vegas, NV	Dale Scholz, Helena, MT
Arthur Colombo, Potomac Falls, VA	Gene Jones, Indiana, PA	Jared Scofield, Duluth, MN
Merle Crew, Grand Junction, CO	Wayne Kanack, Jefferson, TX	Earl Smith, Norman, OK
David Crotty, Salt Lake City, UT	Daniel Kappes, Reno, NV	George Stephan, Phoenix, AZ
Charles Dahl, Jackson, WY	Robert Kautzman, Hallsville, TX	Peter Szabo, Benicia, CA
Gerald Delane, Vancouver, BC, Canada	Don Kidder, Pueblo, CO	Richard Terry, Beckley, WV
Peter Desantis, El Paso, TX	Richard Knight, Malvern, VIC, Australia	Willoughby Trythall, W. Vancouver, BC, Canada
Peter Dunn, Tucson, AZ	John Macke, Saint Louis, MO	James Wennen, Grand Rapids, MN
John Edwards Camarillo, CA	Christopher Mathewson, College Station, TX	William Wray, Las Vegas, NV
Fred Edwards Fonhill, ON, Canada	Earl McCarthy, Manila, Philippines	Kelvin Wu, Santa Cruz, CA
Emil Fattu, Kellogg, ID	Jerry McGaha, Winfield, AL	Michael Young, Portage, WI
Anthony Gentile, Scituate, MA	Robert McGinn, Baldwinville, NY	

International Members



Membership by Division



In 2014, the SME Board of Directors crafted a new strategic plan with a key objective being a renewed and enhanced emphasis on developing and engaging the SME local sections around the world. To achieve that objective, the SME staff was reorganized to allow a staff person more opportunity to focus on those audiences.

Local section financials

There are currently 51 local sections around the world, of which four are international sections in Peru, Philippines, Mexico and Mongolia.

All U.S.-based local sections are required to report their financials to SME following the fiscal year end. For fiscal year 2014 (Oct. 1, 2013-Sept. 30, 2014), 41 of 48 U.S. sections had reported their financials as of Jan. 23, 2015. Attempts to contact the officers of the remaining seven local sections regarding the financial statements are ongoing.

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 2014 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:

- Zachary Black: A Comparison of Traditional Geostatistical Estimation Methods to Implicit Modelling Methods.
- Ebrahim Karimi-Tarshizi: Using a Discrete System Simulation and Animation Model of a Coal Mine to Increase Equipment Efficiency and Reduce Environmental Impact.
- Jessica Kogel: Workforce Development Challenges – Managing Through Boom and Bust Cycles for the Long Term.
- Hamid Maleki: Geotechnical Analyses of Mining-Induced Seismicity.
- Kal Sastry: Mineral Process Engineering Through 20th Century and Beyond.
- Steven Schafrik: Underground Coal Mine Tracking and Communication System Reliability and Availability Methodology.
- Gordon Stevens: Innovative Environmental and Management Education Programs that “Educate” Rather Than Just “Train” Employees have Big Payoffs.

Grants program

2014 local section grant requests total: \$10,525

2014 grants approved \$8,925

2014 amount budgeted: \$15,000

Grants were awarded to the following:

Colorado Section – submitted by Chuck Yarbrough, Section Chair

The Colorado section submitted multiple grant applications totaling \$3,925 to assist with the projects outlined below:

“All About Mining” course – The Colorado Section requested a grant of \$1,500 to sponsor scholarships for three local teachers to attend the “All About Mining” course through the Colorado Mining Association. The “All About Mining” course educates K-12 teachers about mining, metallurgy and exploration.

MEC Outreach through CSM Student Chapter

– The Colorado Section requested a grant of \$150 to assist with transportation costs incurred by the MEC outreach activities of students in the Colorado School of Mines Student Chapter.

Colorado State Science and Engineering Fair –

The Colorado Section requested a grant of \$325 to support the framed awards and cash prizes given to the first and second place winners in both the junior and senior high levels.

Colorado Mining Exhibit Foundation Projects –

The Colorado Section requested a grant of \$1,500 to support the efforts of the Colorado Mining Exhibit Foundation as it works to update five mining exhibits in the state.

Jefferson County Outdoor Education Lab –

The Colorado Section requested a grant of \$500 to develop teaching materials and programs related to mining and mineral resources. Every sixth-grade student in Jefferson County schools spends one week at the Outdoor Education Lab each year. Mineral resources and mining are covered in a limited manner in the Geosphere curriculum.

Minnesota Section – submitted by Harvey Thorleifson, Section Past Chair

The Minnesota Section requested a grant of \$5,000 to assist in funding the Minnesota Minerals Education Workshop. The goal of the workshop is to raise awareness of the positive role that mineral resources play in Minnesota. The workshop consists of a day-long series of classroom sessions, followed by field trips and tours of mining operations.

Outstanding Student Contest winners

Winner: University of Arizona, Student Chapter of SME

First Runner-up: University of Utah, Student Chapter of SME

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

Third Runner-up: Universidad Nacional Mayor de San Marcos

2014 Student Chapter Membership Challenge

The 2014 SME Student Chapter Fall Membership Challenge was considered a success. Student chapters recruited 484 student members and renewed 397. The awards were given to the top three student chapters for their recruitment efforts. The South Dakota School of Mines & Mines placed first. Second-place went to Indian School of Mines and third-place went to the SME Student Chapter of Universidad Nacional Mayor de San Marcos. The grand prize of \$400 went to Virginia Polytechnic Institute & State University.

A \$250 bonus was awarded to the student chapters that recruited more than 25 and more new members during the contest. The schools receiving the bonus were the Colorado School of Mines, Indian School of Mines, Missouri University of Science & Technology, South Dakota School of Mines & Technology, Universidad Nacional Mayor de San Marcos, Universidad Nacional de Altiplano, University of Nevada-Reno, University of Utah, Virginia Polytechnic Institute & State University.

SME online mentor program

Currently, there are 134 active mentor/mentee relationships compared to 103 relationships in 2013.

Student chapters SME worldwide were challenged to compete with each other to reach the greatest number of K-12 school children in one academic year with the message about the importance of mining and minerals in their everyday lives. Teams of five student members visited local K-12 classrooms to give presentations utilizing Minerals Education Coalition (MEC) resources, including the PowerPoint presentation entitled “The Importance of Minerals and Mining” developed by SME member Dr. Kenneth Reid.

The University of Arizona SME Student Chapter is congratulated for its victory in this first annual student outreach challenge. With guidance from faculty advisor Dr. Mary Poulton and industry advisor Pamela Wilkinson, the team made 26 presentations reaching nearly 900 students. The winning team was presented with a cash prize and a travel allowance to attend the SME Annual Conference & Expo in Denver, CO, February 2015.

“In addition to providing educators with curriculum that can be incorporated into lesson plans, SME student members bring an energy and enthusiasm into the classroom setting, often bringing their hard hats and clothing worn underground, along with respirators and other personal protection equipment for visual emphasis of their message, ‘If it can’t be grown, it must be mined,’” said SME Executive Director David L. Kanagy.

SME Student Chapters

Colorado School of Mines
Colorado School of Mines UCA of SME Chapter
Delft University of Technology
* Federal University of Technology, Akure, Nigeria
Indian Institute of Technology Kharagpur Student Chapter
Indian School of Mines
Kent State University
Universidad Nacional Mayor de San Marcos
Laval University
Minnesota State University - Mankato
Minnesota State University - Iron Range Engineers
Missouri University of Science & Technology
Montana Tech of the University of Montana
*Universidad Nacional Micaela Bastidas de Apurmac
National University of Colombia - Medellín School of Mines
New Mexico Institute of Mining & Technology
Pennsylvania State University
Pontificia Universidad Catolica de Chile
Pontificia Universidad Catolica Del Peru
Queens University
South Dakota School of Mines & Technology
Southern Illinois University at Carbondale
* Stockton College of New Jersey
* Tehran Polytechnic (Amirkabir University of Tech)
Universidad Autonoma de Chihuahua
University of Alaska Fairbanks
University of Arizona
University of British Columbia
Universidad de Chile
University of Kentucky
University of Minnesota-Duluth
University of Minnesota-Twin Cities
* Universidad Nacional de Altiplano
* Universidad Nacional de Ingeniería
Universidad Nacional de Moquegua
University of Nevada-Reno
University of New South Wales
University of Pittsburgh
University of Utah
Virginia Polytechnic Institute & State University
West Virginia University

* Student Chapter added in 2014

25-year members

Yahiya M. Al-Shangiti, Jeddah, Saudi Arabia
 Geoff Allard, Tucson, AZ
 Marcus J. Ammon, Parshall, CO
 Robert B. Barnes, Spearfish, SD
 Jochem Becker, Erfstadt, Germany
 George H. Bennett, North Bend, WA
 Joerg A. Bleeck, Woodland, WA
 Lewis D. Bowerman, Sandy, UT
 Brent R. Bronson, Lakewood, CO
 Robert L. Brooks, Bluefield, VA
 Colin C. Brooks, South Plympton, SA, Australia
 Alain J. Broussaud, Olivet, France
 Timothy R. Brown, Victor, CO
 Wenlong Cai, Tucson, AZ
 Javier A. Castro R., Lima, Peru
 William A. Crosby, Glenburnie, ON, Canada
 David L. Crouse, San Jose, CA
 Garland Davis, Sandy, UT
 James L. Davis, Tooele, UT
 James D. Deatherage, Scottsdale, AZ
 Larry W. Delashmit, Aurora, CO
 Joseph M. Driscoll, Elko, NV
 David S. Edwards, Riverton, UT
 Thomas E. Evans, Elberton, GA
 Ken W. Fishel, Lexington, KY
 Ralph G. Fitch, Denver, CO
 John W. Frostiak, Balmertown, ON
 David A. Garbrecht, Draper, UT
 John A. Goroncy, Danville, WV
 Alma Hale Paty, Washington, DC
 David R. Holberg, Springfield, MO
 Austin X. Huang, Bellingham, WA
 Joseph N. Ignat, Littleton, CO
 Amy E. Jacobsen, Castle Rock, CO
 Graeme J. Jameson, Callaghan, NSW, Australia
 Robert J. Johnson, Salt Lake City, UT
 John W. Klundt, Parker, CO
 David L. Knott, Braddock, PA
 Jessica Kogel, Sandersville, GA
 Duane E. Kokkinen, Hibbing, MN
 James R. Korpi, Silver Bay, MN
 Raymond E. Krauss, Santa Rosa, CA
 Gretchen T. Lapidus, Mexico, DF, Mexico
 Diana J. Lefler, Reno, NV
 Peter J. Lewis, Sydney, NSW, Australia
 Kathy Littleton, Carlsbad, NM
 Jeffery P. Lulich, Kemmerer, WY
 Todd M. Lyden, Cloquet, MN
 Peter A. Lynch, Chapel Hill, QLD, Australia
 Thomas J. Malkovich, Eveleth, MN
 David E. Marek, Godfrey, ON, Canada
 Stephan Marin, Sherbrooke, PQ, Canada
 John R. McClellan, Birmingham, AL
 George E. McQuien, Lithia, FL
 Cynthia R. Moore, Harrison, ID
 Kenichi Murakami, Tokyo, Japan
 David S. Music, Georgetown, KY
 Andrew W. Myers, Terre Haute, IN
 Steven R. Newman, Layton, UT
 Raymond K. Patterson, Moore, SC
 John S. Pehrul, Salt Lake City, UT
 Arthur S. Perkins, Moraga, CA
 Robin J. Perry, Westbank, BC, Canada
 Robert E. Prestis, Las Vegas, NV
 Terry N. Rigoni, Prescott, AZ
 Mario E. Rossi, Delray Beach, FL
 Todd D. Roth, Littleton, CO
 Jeffrey W. Ryan, Oakland, MD
 William J. Schlittler, Colorado Springs, CO
 Brian N. Shaffer, Rices Landing, PA
 Douglas R. Tesarik, Spokane, WA
 Michael A. Trevits, South Park, PA
 Bryce T. Tripp, Salt Lake City, UT
 Karl S. Tsuji, Fairfax, VA
 Bruce H. Van Brunt, Pagosa Springs, CO
 Gerald H. Veillette, Greenwood Village, CO
 Don B. Vry, Champlin, MN
 Rex A. Waller, Houston, PA
 Jeffrey H. Washburn, Minneapolis, MN
 David C. Waugh, Saskatoon, SK, Canada
 John E. Wey, Idaho Falls, ID
 R.H. White, Phoenix, AZ
 John C. Wittig, Sugarloaf, PA
 Bradley J. Young, Stratoni Chalkidiki, Greece
 Michael R. Young Peoria, AZ

George A. Fox Conference

The 2014 George A. Fox Conference was held at City University of New York (CUNY) in New York, NY on Jan. 28, 2014. The conference, chaired by Colin Lawrence, featured 14 presentations that focused on 21st Century Challenges in the Tunneling Industry. The conference was attended by 409 participants.

Sponsorships generated a total \$50,500 in contributions through Gold, Silver and Bronze sponsorship levels.

SME Annual Meeting and Exhibit

SME returned to Salt Lake City, UT for the first time in six years for another successful Annual Meeting, Feb. 23-26, 2014. SME's attendance continues to increase when held in cities outside of Denver, CO. The 2014 meeting boasted 6,722 participants and 804 exhibit booths compared to 5,201 attendees and 690 exhibit booths in Seattle, WA in 2012.

Registration information of note:

- International attendance: 613
- Student attendance: 656
- New members: 285

Exhibit booths pre-sold for 2015: 625

The Annual Meeting App continued to provide a more interactive conference experience and was downloaded by 3,149 participants.

Newmont Mining was the official meeting sponsor for the fourth consecutive year, with a contribution of \$70,000. This included sponsorship of the Student Mixer.

The Foundation Dinner had a Winterfest theme and was attended by 412 people. A total of 21 tables were sold to generate additional sponsorship for the Foundation.

A field trip to Bingham Canyon Mine was offered on Thursday, Feb. 27. The sold-out trip was attended by 50 people.

Total 2014 Annual Meeting registration revenue was \$1,145,105. Sponsorship revenue totaled \$195,511. Exhibits revenue totaled \$1,847,814. Expenses totaled \$1,346,418 generating a net surplus of \$1,842,011 compared to \$1,564,581 in 2013.

Current Trends in Mining Finance Symposium

SME hosted the second Current Trends in Mining Finance Symposium in New York, April 28-29,



2014 at the City University of New York. The conference was chaired by Tim Alch and Alan Oshiki and was attended by 115 people. The conference "Is it Over Yet? Are there Brighter Days Ahead? Where? When?" featured 16 presentations. In conjunction with the conference, a short course was offered on Sunday, April 27, "Metals Hedging Strategies and Accounting Issues," followed by a group dinner.

The third annual conference will be held April 27-28, 2015 at the Princeton Club in New York City. The committee is currently developing program and sponsorship information. Registration and conference information will be available on the SME website in early fall.

Offshore Technology Conference

SME participated in the first OTC Asia conference, which was held in Kuala Lumpur, Malaysia in March 2014, with more than 25,000 attendees. The conference was considered a great success and will be held again in 2016.

In May 2014, SME participated in the OTC conference in Houston, TX. This year's conference had more than 2,500 booths and more than 108,000 attendees. During the conference, SME's OTC Committee chaired five technical sessions.

During the next year, SME will participate in the Arctic Technology Conference in Copenhagen in March, OTC Houston in May and OTC Brasil in Rio de Janeiro in October.

North American Tunneling Conference

The fifth UCA of SME North American Tunneling Conference was held June 22-25, 2014 at the JW Marriott LA Live Hotel in Los Angeles, CA.

The 2014 North American Tunneling Conference offered four short courses in addition to three days of technical programming focusing on “Tunneling: Mission Possible.” The opening keynote speech was given by Antonio Villaraigosa, 41st mayor of Los Angeles.

The 2014 conference boasted an increased attendance with 1,090 delegates and 162 booths, compared to 918 delegates and 140 exhibit booths in 2012.

Critical Minerals

SME hosted the Critical Minerals Conference at the Westin Hotel in Denver, CO, August 3-5, 2014. The two-day conference, “Rare Earths and Beyond: Mines, Markets and Manufacturing,” was chaired by Rod Eggert and attended by 84 participants. The two-day technical program featured a keynote, 25 presentations, speaker

lunches, social events and proceedings.

Cutting Edge TBM Conference

SME and the *North American Tunneling Journal* hosted the third Annual Cutting Edge conference, focusing on “Groundwater Control for Tunneling” on Nov. 3-4, 2014 in New York, NY. The conference was attended by 179 participants and generated \$27,000 in sponsorship contributions. The two-day technical program featured 26 presentations, 17 exhibit booths, and a field trip to the East Side Access Caverns.

Arizona Conference

The Arizona Conference was held on Dec. 7-8, 2014 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 local section golf tournament and the Arizona Conference. The short course on “N1 43 – 101: Disclosure Best Practices” was offered on Sunday prior to the conference. John Marsden, SME 2014 president, was the keynote speaker, addressing “iPhones Everywhere but No One Wants Our Mine.” The luncheon speaker was Raymond Goldie who addressed industry supply and demand. The conference, chaired by Dawn Garcia, was attended by 518 participants and \$42,500 was collected in sponsorship contributions.

2015 SME Meetings

George A. Fox Conference

Jan. 27, 2015, Graduate Center, City University of New York, NY

SME Annual Conference and Expo

Feb. 15-18, 2015, Colorado Convention Center, Denver, CO

SME Minnesota Conference

April 13-15, 2015, Duluth Convention Center, Duluth, MN

Mining Finance

April 27-28, 2015, Princeton Club, NY

APCOM

May 27-30, Westmark Fairbanks Hotel, Fairbanks, AK

RETC

June 7-10, 2015, Sheraton New Orleans, New Orleans, LA

PE Course

September, 2015, St. Louis, MO

Environmental Considerations

Sept. 20-23, 2015, Pittsburgh, PA

Florida Section/Dryer Conference

Oct. 7-8, 2015

Arizona Conference

Dec. 7-8, 2014, JW Marriott Starr Pass Resort, Tucson, AZ

Mining Engineering (ME) is SME's flagship publication. Now in its 66th 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 at www.miningengineeringmagazine.com, www.uca.smenet.org or SME's website, www.smenet.org.

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 2014 included several special editorial sections. Included were special sections on coal, industrial minerals, minerals processing, exploration, autonomous mining, surface and underground mining, aggregates, and underground and surface haulage equipment. Regional issues covered Australia and Canada.

The January and February issues of *Mining Engineering* included the SME Annual Meeting 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. The SME News section of the October and April issues include the WAAIME division newsletter.



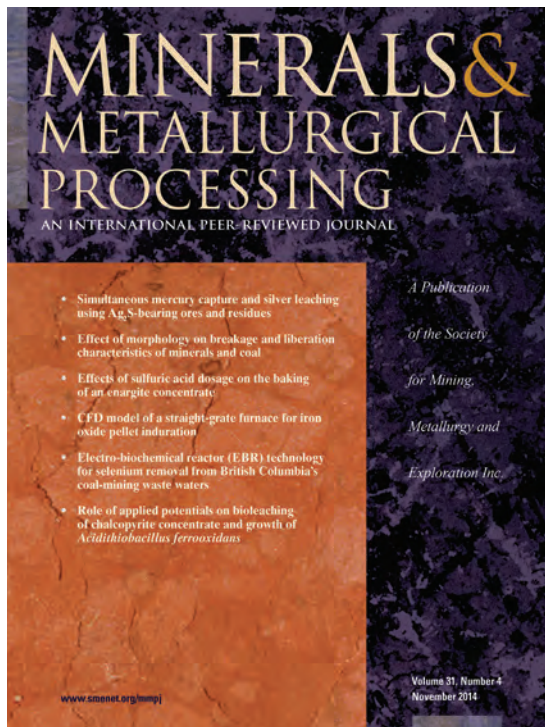
Tunneling & Underground Construction

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). 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 2014 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 2014 is Volume 31.

S. Komar Kawatra, professor at Michigan Technical University, performed the duties of Editor-in-Chief for 2014. During 2014, 22 peer-reviewed papers, totaling 222 pages, were published in **M&MP**. The May and August 2014 issues were special issues on iron ore processing.

Sixteen technical papers, totaling about 150 pages, will appear in *Transactions*, Vol. 336, for the year 2014. 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 20 and totaled 150 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.

SME continues to publish some of the best technical books for the global mining industry. Even though sales in 2014 were down from the record-setting sales during 2013, the Society's number of titles continues to grow.

During 2014, SME published seven new titles and acquired seven more through outside book sellers. In 2015, the Society expects to publish about 12 more new books.

The SME Bookstore continued to travel during 2014. Attendees at several industry conferences were able to purchase SME books. Conferences attended included Mineral Exploration Roundup, the SME Annual Meeting, the Prospectors & Developers Association of Canada conference, Coal Prep, the North American Tunneling conference and the Denver Gold Forum.



Titles published in 2014

Beneficiation of Phosphate Ore

By S. Komar Kawatra, J.T. Carlson

Introduction to Cut-off Grade Estimation

By Jean-Michel Rendu

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

By Chris Enright and Robert L. Ferriter

Mineral Processing and Extraction Metallurgy: 100 Years of Innovation

Edited by Corby Anderson, Robert Dunne, John Uhrie

North American Tunneling: 2014 Proceedings

Edited by Gregg Davidson, Alan Howard, Lonnie Jacobs, Robert Pintabona, Brett Zernich

Sampling and Monitoring for the Mine Life Cycle

Edited by Virginia McLemore, Kathleen Smith, Carol Russell

Techniques for Predicting Metal Mining Influenced Water

Edited by R. David Williams, Sharon Diehl

Titles acquired in 2014

Canadian & American Mines Handbook 2014-2015

The Northern Miner

Geotechnical Design for Sublevel Open Stopping

Ernesto Villaescusa

Guidelines for Evaluating Water in Pit Slope Stability

Edited by Geoff Beale, John Read

Minerals, Metals and Sustainability: Meeting Future Material Needs

By W.J. Rankin

Top sellers in 2014

SME Mining Engineering Handbook

NAT 2014 Proceedings

Mining Economics & Strategy

Underground Mining Methods Chemistry of Gold Extraction

Mineral Processing Plant Design, Practice & Control

SME Mining Reference Handbook

Mineral Processing & Extractive Metallurgy

Modern American Coal Mining

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

In 2014, 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 2014 totals:

Web pages viewed 146,437
Unique Logins 3968 (+47% from 2013)

SME Twitter (@SMEcommunity):

3,369 followers (+995 from January 2014)
Between January and February 2014, our tweets had more than 35,000 views.

SME LinkedIn group:

24,955 members (+5,538 from January 2014)
SME Company page 2,161 followers (+861 from Jan. 2014)

SME Google+ page:

182 following our page (+50 from January 2014)

SME YouTube Channel:

2,238 views in 2014 (+42% from 2013)

SME Facebook page:

12,023 fans (+2,369 from January 2014)

SME Webinars: Professional Development on Your Terms

SME's webinar program debuted in 2012 with eight "hot topic" sessions. Recognizing member needs for on-demand professional development, SME expanded its webinar program in 2013 and again in 2014, with an increased focus on technical programming. In 2014, 22 webinars were held, with a total attendance of 616. This compares to 221 in 2013. Popular 2014 topics included:

SME Facebook Insights : Snapshot

Total Likes ?

12,023 ↑ 24.5%

Facebook Insights : Likes by Region



Countries	Likes
United States	1,851
Indonesia	1,500
India	1,322
Peru	1,033
Pakistan	746
Iran	661
Turkey	518
Egypt	516
Canada	323
Australia	267
35 more countries	2,566

- The Kennecott Slide
- Mining Business Trends: Investing in the Future
- Supplying Society with Natural Resources: the Future of Mining: from Agricola to Rachel Carson and Beyond
- Mining and the Church in Peru
- Methane Air Explosion Hazard within Coal Mine Gobs
- The new SME Guide

Unique Visitors Per Day Between 1/1/2014 and 7/31/2014



Coal & Energy

Nikky LaBranche
2014-2015 Coal & Energy Division Chair

The Coal & Energy Division (C&E) membership, as of December 31, 2014, was 2,080, of which 315 were student members. This reflects a decrease of 41 members from the total of 2,121 members in 2013. The division's retention rate was 88.17 percent.

2014 activities and actions

The Coal & Energy Division met at the SME 2014 midyear meeting in Phoenix, AZ.

Dan Alexander, chairman of the C&E Scholarship Committee, reported that scholarship awards to international students have created inequities because of the differences in educational costs among participating schools in various countries. As a result, he is working on a plan for revamping the procedures for awarding scholarships.

2015 Annual Meeting programming

The C&E Program Chair, Sukumar Bandophadayay, presented an overview of the

technical program for the 2015 SME Annual Conference & Expo in Denver, CO. Nineteen C&E sessions were scheduled and 135 abstracts were submitted. Possible keynote speakers for the C&E luncheon at the conference were identified. However, selection of the speaker had not yet been finalized.

Fundraising

Barb Arnold, fundraising chair, reported on the division's silent auction and luncheon table sponsorships. She said that a sponsor must be found to match the proceeds of the silent auction in order to justify the work required for the auction. A sponsor had not yet been found.

SME news and updates

Nikky LaBranche appointed an ad hoc committee to address a sustainable pathway of succession for the C&E Executive Committee. She will serve as chair. Members include Michael Trevits, Vlad Kecojevic, Jürgen Brune, Joe Zelenko and Gary Buchan. Additionally, Dan Alexander suggested that the Committee explore a curriculum, similar to the Boy Scout Merit Badge, for the 4-H Club, which has expressed an interest.



Nikky LaBranche
2014-2015 Coal & Energy Division Chair

Environmental

Virginia McLemore
2014-2015 Environmental Division Chair

The Environmental Division's (EVD) membership, as of December 31, 2014, was 1,073, of which 132 were student members. This reflects an increase of 41 members from the total of 1,032 members as of December 31, 2013. The Division's membership retention rate was 86.46 percent.

Midyear meeting activities and actions

2015 Annual Conference program. Program Chair, Robert Mongrain, reported that there will be between 12 and 14 sessions in 2015. Many sessions had to be split due to the number of presentations. Bill Cobb, of Freeport-McMoRan, was invited to speak at the Environmental Division luncheon. The EVD scheduled a short course covering the seismic design of tailings impoundments, which was led by Christina Winckler of URS. No field trips were planned.

Scholarship program. The current eligibility standards require that applicants for SME

scholarships be enrolled in an ABET-accredited program or attend a school with an SME Student Chapter. The division is interested in expanding the pool of candidates applying for the environmental scholarships to better reflect the diverse background of the Environmental Division membership (i.e. those with degrees not ABET-accredited or who attended schools that do not have an SME Student Chapter or strong mining-centered curriculum). Expansion of the eligible list of students will also contribute the general goal of expanding membership. Virginia McLemore presented the issue to the SME Board of Directors following the EVD midyear meeting.

SME Strategic Committee

The Environmental Division identified a need to have a greater presence on the SME Strategic Committees. Bob Reisinger is on the Products and Services Strategic Committee and Anne Williamson's nomination was being considered during the midyear meeting. The topic was placed on the monthly meeting agenda to begin the process of identifying a strong list of candidates for future nomination. The SME goal of raising the public perception of mining should necessitate greater involvement of division on SME Strategic Committees.



Virginia McLemore
2014-2015 Environmental Division Chair



Gordon M. Stevens
2014-2015 Industrial Minerals & Aggregates Division Chair

Industrial Minerals & Aggregates

Gordon M. Stevens
2014-2015 Industrial Minerals & Aggregates Division Chair

The Industrial Minerals & Aggregates Division membership, as of December 31, 2014, was 1,042, of which 118 were student members. This reflects an increase of 38 members from 1,004 in 2013. The retention rate for the Industrial Minerals & Aggregates Division was 90.61 percent.

2014 midyear meeting

Several members of the division were unable to attend the 2014 SME midyear meeting in Phoenix, AZ. Gordon Stevens (division chair) and Rusty Winn (Technical Committee chair) attended and held ad hoc discussions regarding division and committee business. After further discussions with Marc Herpfer at the midyear meeting, a general discussion of midyear meetings will be placed on the division Executive Committee agenda at the 2015 Annual Conference. With the understanding that division business can be effectively executed during the year via conference calls and e-mails, the importance of attending midyear meetings still needs to be reinforced to promote better camaraderie and networking across SME divisions and with SME staff.

2014 year-end accomplishments

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

- Multiple Executive Committee conference calls were held throughout the year discussing relevant division business.
- Three luncheon sponsors were secured for the

2015 division luncheon (Parker Velcon, \$4,500; Agapito Associates, \$4,500 and, Civil & Environmental Consultants, \$1,000).

- The speaker for the 2015 Annual Division Luncheon was Jon Voight of the New Sunrise Mine in Wyoming.
- There were six technical program sessions including 41 presentations planned by the Division for the 2015 Annual Conference.
- Two presenters from the 2014 Industrial Minerals & Aggregates division's technical sessions were selected by SME as 2014-2015 Henry Krumb Lecturers (Jessica Elzea Kogel and Gordon M. Stevens).
- The planning for 2015 Dreyer Conference planning is successfully moving forward. Regular monthly conference calls are being held by the Dreyer Committee. This will be a joint conference with the 30th SME Regional Phosphate Conference to be held on Oct. 6-8, 2015 in Lakeland, FL. The main Dreyer program will focus on Industrial Minerals for Agriculture.
- Proposals for four webinars sponsored by the division have been approved by SME. These are scheduled for presentation in March and April 2015.
- An ad hoc committee to discuss a new edition of *Industrial Minerals & Rocks (IMAR)* was established. The committee met several times during 2014 via conference call and emails, with tentative hopes for a publication date in 2020. An IMAR exploratory meeting was held during the 2015 Annual Conference and the ad hoc status will likely be upgraded to a Division Sub-Committee to follow the process through to publication.

Mineral & Metallurgical Processing

John Uhrie
2014-2015 Mineral & Metallurgical Processing Division Chair

The Mineral & Metallurgical Processing Division's membership, as of December 31, 2014, was 2,575, of which 213 are student members. This reflects an increase in membership of 18 members from the total of 2,557 in 2012. The Division's retention rate is 89.25 percent.

2014 midyear meeting

The Mineral & Metallurgical Processing Division's Executive Committee met at the 2014 midyear meeting in Phoenix, AZ. Key discussions and action items are outlined below. All items are directed toward furthering the MPD's principal mission of:

1. Providing quality programming to its constituency
2. Recognizing our best through an active and engaged awards program
3. Recognizing and encouraging our future through a generous university scholarship program

Programming

The MPD scheduled 15 technical sessions for the 2015 Annual Conference covering the basic fundamentals of minerals processing/ extractive metallurgy. Principal themes include comminution, flotation, plant design, chemical processing and physical separations.

Furthermore, a motion was passed by the MPD Executive Committee to make the above-mentioned MPD Unit Committees part a new division structure. As per the MPD bylaws, this change will be published in *Mining Engineering* magazine (Fine Grind) and was brought for discussion at the MPD annual business meeting.

The MPD Executive Committee engages with the awards committee to ensure that the committee is communicating among itself, is seeking and nominating a number of qualified candidates, and engages in dialog to reach consensus prior to giving awards.

SME has agreed to approach AIME seeking funding for the AIME legacy 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/ AIME to fund the Richards Award is 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.

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 for first, second and third places in both the undergraduate and graduate divisions.

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



John Uhrie
2014-2015 Mineral & Metallurgical Processing Division Chair

Mining & Exploration

Catherine Dreesbach
2014-2015 Mining & Exploration Division Chair

The Mining & Exploration (M&E) Division’s membership, as of December 31, 2014, was 5,951, of which 741 were student members. This reflects a decrease in membership of 108 from the 6,059 members in the division as of December 31, 2013. The division’s retention rate was 89.38 percent.

2014 midyear meeting

The M&E Division met at the 2014 midyear in Phoenix, AZ. Key discussions and action items are outlined below:

Membership retention. It was noted during the midyear meeting that M&E membership retention has dropped from 89 percent to 86 percent. Sam Shoemaker looked into the apparent drop in membership retention and found that the percentage of SME members in the M&E Division has remained constant since 2011, and that the decline in membership seems to be tied to the current economic climate. Some suggestions arising from his research include:

- Tracking details of SME membership and reporting it at the midyear and annual meetings of the M&E Division Executive Committee.

- Working with SME staff on ways to improve existing member retention within the M&E Division.
- Using an exit survey or phone calls to understand why members are leaving the M&E Division.
- Continue working on ways to better communicate the division’s activities to members.
- Informally making these tasks the responsibility of the M&E chair-elect by outlining them in the division handbook.

Annual Conference programming. M&E had received 230 submissions for 31 technical sessions for the 2015 Annual Conference in Denver, CO. It was anticipated that the number of talks would be reduced to approximately 180 to better achieve the target of six talks per session.

Global Mining Standards and Guidelines (GMSG) Group. An overview and updated presentation for GMSG was given by Mark Bartlett at the midyear meeting. GMSG is seeking continued support from SME through divisions for the Society to provide \$25,000 a year for the next three years. The Executive Committee agreed that a short question-and-answer session at the 2015 Annual Conference involving representatives



Catherine Dreesbach
2014-2015 Mining and Exploration Division Chair

from GMSG might be held after the Committee has had a chance to review GMSG's detailed plan and milestones. The following motion was made during the meeting: The M&E Division will make a recommendation to the SME Board of Directors to provide \$25,000 of support funding per year to the GMSG for three years and strongly recommends a deliverable objective strategic plan that the group will provide the M&E Executive Committee, which will include a detailed plan to engage with the OEMs. This plan will include an action plan as well as milestones delivered to the Executive Committee of M&E prior to the annual conference in Denver 2015.

M&E Division Handbook and bylaw changes. During the past year, work has progressed on the M&E Division Handbook. As part of that work, the division bylaws were reviewed. During the review process the following issues were identified:

- There were still a few parts of the bylaws

that contained references to the old unit committee structure of the division.

- There were some parts of the bylaws that did not coincide with current practices of the division.
- The award committee structure was in need of revision.

The M&E Executive Committee held an afternoon session at the midyear meeting specifically to discuss changes to the structure of the M&E Division award committees. Award committee structures were agreed upon to reduce and balance the workload for division officers. The need for additional changes to the bylaws arose from restructuring these committees, and the bylaws have been revised accordingly. The formal review process has been initiated and it is anticipated that the by-law changes will be approved sometime in 2015. The M&E Division Handbook will be completed during the next year as well.



William Edgerton
2014-2015 UCA of SME
Division Chair

UCA of SME

William W. Edgerton
2013-2014 UCA of SME Division Chair

The Underground Construction Association (UCA) of SME's Executive Committee approved the division's strategic plan during 2014. The plan outlines the major goals and objectives for the next three to five years. The mission of the UCA is to promote the responsible development and use of underground space and facilities.

In addition to creating a mission statement, three strategic goals were developed.

Strategic Goal 1: Become the primary resource for underground construction issues and information requests. Members of this goal development team include: David Klug, Paul Headland, Ray Brainard, Nik Sokol, David Field, Steve Hunt, Derek Zoldy, Bob Goodfellow and Nasri Munfah.

Strategic Goal 2: Improve the image of underground construction in the minds of the public, government, owners and all key constituencies. Members of this goal development team include: Paul Gribbon, Stephen Liu, Artie Silber, Jon Klug, Mike Vitale, Mark Johnson, Heather Ivory, Kellie Rotunno, Krishniah Murthy and Brian Zelenko.

Strategic Goal 3: Improve the effectiveness and efficiency of the underground construction industry. Members of this committee include: Gregg Davidson, Darrell Wilder, Zachary Jones, Jon Hurt, Dave Young, Steven Fradkin and Dan Ifrim.

World Tunnel Congress

In 2013, UCA of SME was awarded the contract to host the World Tunnel Congress in San Francisco, CA. The World Tunnel Congress is the world's most prestigious tunneling event, hosted annually by national tunneling organizations around the world.

The UCA is proud to be hosting a significant event like the WTC. They've assembled a strong leadership team and is planning on delivering an event with as many as 350 exhibitors and as many as 2,500 attendees from around the world. In 2016, WTC will be held in collaboration with the biennial North American Tunneling Conference, which will be stand alone in 2018.

The WTC 2016 Leadership team:

Co-chair – Mike Smithson; Co-chair – Lok Home; UCA representative to ITA – Amanda Elioff; IT representative to UCA – Olivier Vion; UCA of SME staff liaison – Tim Reagan; Budget and Finance Management – Dave Kanagy; UCA of SME Chair – Bill Edgerton; 2016 UCA of SME Chair – Art Silber.

Committee Chairs:

Sponsorship and events – David Klug/Tom Clemens; Programming – Randy Essex/Lonnie Jacobs; Technical and scientific programming – Mike Mooney/Patricia Nelson/Amanda Elioff; Social Events and Programs – Henry Russell; Marketing – Mike Rispin/Jim Rush.

WAAIME

Jean Davin
2014-2015 WAAIME Division Chair

The WAAIME Division made a lot of pivotal decisions in 2014 that increased its support of educational program and student support. After the 2014 SME Annual Conference & Expo, WAAIME instituted a section grant program that gave a total of \$20,000 to 10 WAAIME Sections to support their educational and scholarship programs. International sections were given \$50,000 to support their scholarship programs. Going forward, the five international sections of WAAIME will increase their yearly scholarship funds to \$12,000 to support their scholarship programs. The yearly stipend has not been increased since its inception, and current market conditions permit this increase. In 2014, the WAAIME Division gave a total of \$241,000 for scholarships to U.S. students. There will be a change in student scholarship procedure. In 2015, scholarships will

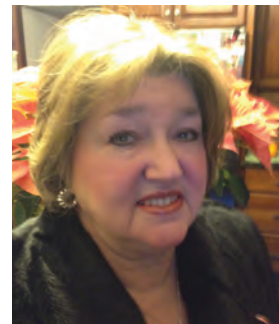
be limited to three per student encompassing both undergraduate and graduate years of study.

In support of education outreach and curriculum development at the K-12 level, a grant of \$5,000 was approved and given to the SME Foundation's Minerals Education Coalition (MEC) program.

The WAAIME auction at the SME Annual Conference has officially been named to honor its past president and will now be known as the Iris Whinnen Owen Silent Auction.

Bonnie McMorris was chosen as the first recipient of the WAAIME Founder's Award.

Bonnie McMorris is being recognized for her exemplary service to WAAIME and its goals. This award is designed to replace the WAAIME National Honorary Member Program and to recognize those members who have contributed significantly to a local section, the national board/committee, or to further the goals and purposes as set forth in WAAIME's incorporation. This award is funded by WAAIME's founding section, Tri-State (NY-NJ-CT).



Jean Davin
2014-2015 WAAIME
Division Chair

2014 WAAIME Scholarship Recipients

Colorado School of Mines

Abhishekh Ashok Parmar, Chelsea Pomeroy, Dong Joon Youn, Halley Keevil, Kun Zhang, Leo Conner Weiman

Missouri University of Science & Technology

Aaron Wundrack, Ashley Nuhn, Deanna Millard, Elnaz Siami-Irdemoosa, Jay Schafner, Kathryne Sewester, Matthew Coy, Reinhold Daykin, John Schnell, Robert Florich, Saeid Reza Dindarloo, Sisi Que, Stanley Chinedu Nwokebuihe,

Montana Tech

Andrea Cocergine, Niklas Folke, Ruslan Bukenov, Steven V. Piippo

Pennsylvania State University

Kyle Olivio, Linzhe Cai, Matthew Ulizio

Purdue School of Engineering and Technology

Hamed Zamenian

South Dakota School of Mines and Technology

Devin Rowe, Joe Hansen, Jordan Dick, Mark Mazzucco, Michael Willman, Nathan Madden

Southern Illinois University at Carbondale

Behrooz Abbasi

University of Alabama – Tuscaloosa

Caleb Felker, Kuldeep Kumar

University of Alaska-Fairbanks

Jesse Cervin, Raymond Brooks, Raymond Thomas Zimmer, Summer N Garvey

University of Arizona

Alyssa Lindsay Hom, Ashlyn Hooten, Dongbo An, Jeremy Sarvay, Paul Mather, Pengfei He, Peter Kiely Thrift, Peter Mather, Samantha M Montecinos, Sean Hovorka, Taghi Sherizadeh, Upasna Chandarana

University of Kentucky

Amir Najarzadeh, Ashish Ranjan Kumar, Brett C Jackson, Catherine Johnson, Douglas K Addo, Greg Brenner, Joshua Calnan, Kevin Harris, Majid Mahmoodabadi, Mohammad Rezaee, Qingqing Huang, Seyed Hassan Amini, Yigong Zhang

University of Mississippi

Corey Schaal

University of Nevada, Reno

Chase Barnard, Ebrahim Karimi Tarshizi, Nicholas Ray Potter, Pedram Roghanchi, Prasoon Tiwari, Rahul Thareja, Virginia Ibarra

University of Utah

Aaron Larry, Aaron Young, Ashley Hodgson, Breanna Sanders, Crystal Darger, Hussein Al rubaye, Jake Colby Seiter, Jordan Prestwich, Joshua Howard, Kayla Jane Mathisen, Kendal Bergman, Kyle Spaulding, Manjunath Basavarajappa, Michael Stine, Natalia Healey, Nathan Ellgen, Nathan Rigby, Olan Nielson, Oleg Serdyuk, Ryan Burton, Sheldon Kargis, Tanner Morrill, Tyler Peck

Virginia Tech

Andres Dahmen, Aubrey Athey, Brian Knott, Brittany Wilson, Carolyn Kosloski, Chelsea Barrett, Jason T.F. Gurrister, Jeffrey Lokerson, Jillian Trickey, Marion King, Molly Reed, Nicholas Cox, Patrick Reeder, Philip Dale Shuttters Farley, Ruby B. Johnson, Sean Reed, Tyler Daugherty, Victoria Johann

West Virginia University

Jeffrey Stevens, Mehdi Rajeebaygi



Bart Hyita
2014-2015
SME Foundation
President

I am pleased to report that, through the continued effort and graciousness of our members, corporate sponsors, staff, volunteers and the ongoing success of The Campaign for Mining, the SME Foundation (SMEF) delivered another strong fundraising year in 2014. We were not only able to raise the necessary funding for our current world-class programs, but were also able to provide formal multi-year funding for the much needed Ph.D. Grant Program.

Our mining universities need help to maintain their faculty ranks and the Ph.D. Grant Program is designed to assist them in doing so. Speaking of help, the SMEF is most fortunate to have strategic partnerships with our corporate roundtable donors. This prestigious group has now been expanded to 18 leading mineral extraction and mining support corporations. The Foundation has also been working with the SME Board of Directors to put together a new strategy for the entire organization going forward. We are establishing an updated vision and clear fund-raising objectives by utilizing input several of you have selflessly provided concerning what may affect SMEF's success in the future.

Our mineral industries continue to deal with regulatory and economic challenges but when times are uncertain, it is even more important to provide fact-based information, quality education and professional direction to key constituents and the public. We must continue to provide the excellent professional and educational programs SME offers, be a prime resource for the mineral extraction and underground construction industries, all while

SME Foundation

The mission of the SME Foundation (SMEF) is to further scientific, technical and educational programs, and to be the primary resource of mining and underground construction information. The Foundation achieves these goals through K-12 curricula and community outreach of the Minerals Education Coalition (MEC), numerous scholarship accreditations of mining schools through its participation in ABET, financially supporting Ph.D. students and faculty to achieve tenure at the university level and supporting the Professional Engineers (PE) Exam Committee.

As fiscal year 2014 closed, the SME Foundation realized success in fundraising and program growth. The Creating Global Prosperity: The Campaign for Mining continued to reach donors with its proactive positive message, with new corporate donors from all sectors of the industry. Program growth began as MEC changed its direction toward becoming the

improving the public perception of mining. Our energized programs provided important sources of information in 2014, beginning with: the Minerals Education Coalition (MEC), which has produced positive mining videos and bilingual technical information. The Professional Engineering (PE) group has dramatically expanded testing opportunities for engineering professionals. The ABET program group has updated accreditation criteria and has conducted several visits to our mining universities. Finally, the Miner's Give Back program has begun funding humanitarian projects in our mining communities. Additionally, the SMEF continues to award a multitude of scholarships to mining students and continues to investigate new fundraising methodologies and opportunities.

The SME membership is constantly changing and growing and its inclusiveness is unparalleled. We are becoming more international each year and strive to offer mining education programs globally. We also continue to support our local chapters who themselves provide much-needed scholarships and resources to our membership and mining professionals. It seems our work is never done and it is so gratifying to have the support and assistance from the SME membership. I ask all of you to do whatever possible to provide any resources you can and to contribute to the SME Foundation programs to further their positive impact on the mining world. I wish everyone to be safe and successful in the year ahead and look forward to seeing you in the years to come.

clearinghouse for all K-12 mining- and mineral-based education materials and outreach, and the Education Sustainability Committee drafted and presented a robust Ph.D. Fellowship and Career Grant program to sustain the pipeline of Ph.D.'s at the 14 U.S. mining schools. In addition, the PE and ABET programs became fully funded and sustainable for the next few years, and the portfolio of offered scholarships grew with the addition of the Rong Yu Wan award and the establishment of the Ernest K. Lehmann Fund.

To further enhance the depth and breadth of the SME Foundation, the Executive Committee, along with the SME president, past president and incoming president, started the strategic planning process. The membership was surveyed in the summer of 2014 and a three-day planning session took place at the SME offices in November. A full

operating and fundraising plan will be presented to the SME Foundation Board of Trustees at the 2015 SME Annual Conference & Expo. The goal of this strategic planning process is to align SMEF initiatives and create long-term funding sources for education and outreach programs of SMEF and the community it serves.

The Creating Global Prosperity

The Campaign for Mining, begun 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 will continue into 2015.

SMEF wishes to thank the Corporate Roundtable partners who contributed in fiscal year 2014:

- Freeport-McMoRan Copper & Gold (\$200,000)
- Caterpillar Inc. (\$100,000)
- Newmont Mining Corp. (\$100,000)
- Alliance Resource Partners LP (\$50,000)
- CONSOL Energy (\$50,000)
- Joy Global Inc. (\$50,000)
- Peabody Energy (\$50,000)
- Rio Tinto/Kennecott Utah Copper LLC (\$50,000)
- Mining & Metallurgical Society of America (\$40,000)
- Barrick NA
- Cloud Peak Energy (\$25,000)
- Diversified Resources Inc. (\$25,000)
- Drummond Co. (\$25,000)
- Fluor (\$25,000)
- Imerys (\$25,000)
- Kinross Gold (\$25,000)
- Murray Energy Corp. (\$25,000)
- United Mining Equipment (\$25,000)
- Xcoal Energy & Resources (\$25,000)

This growth has provided not only program opportunities, but also staffing changes and additions within SMEF. In July, SME Deputy Executive Director, Government Relations, John Hayden, assumed responsibility for also directing education and the Foundation. On August 1, 2014, Megan Wayne joined the Foundation development team. Her experience in fundraising and events will

prove to be a perfect match to AnnMarie Kochevar, Foundation Manager and Lorie Laessig, Foundation Coordinator.

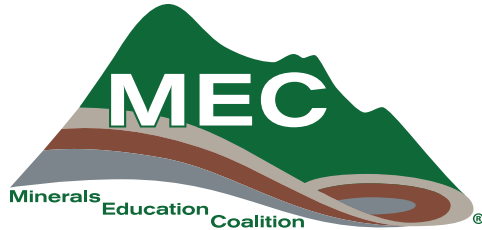
New programs implemented or in development include:

- Launch of the Rong Yu Wan Scholarship Fund. The first recipient will be awarded at the 2015 Annual Meeting & Expo.
- A Ph.D. Fellowship & Career Grant program was approved on November 20, 2014 by the SMEF Board of Trustees. The SME Board showed its support of this program by appropriating a \$500,000 contribution to the fund that assures its success for a minimum of two years.
- The Miners Give Back program is to be relaunched and implemented in 2015, through collaboration with Engineers without Borders and SMEF.
- The creation of a Planned Giving program is under way and will include a Legacy Club for donors who give to the SMEF through a planned estate gift.

The John T. Boyd Challenge has now been met by 70 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. In 2014, the Foundation acknowledged two individuals at the \$25,000 level. Two individuals will be recognized at the Ruby Circle level (donors who reach \$50,000 of lifetime giving) and three corporations that have met the cumulative amount of \$100,000 of lifetime giving. One individual will be honored with the Emerald Circle award for \$100,000 of lifetime contributions. The Foundation gives great thanks to all of its donors who make the SMEF programs successful.

Estate Planning

In the summer of 2014, the SME Foundation received its first Estate Planning gift from SME member Robert Shoemaker. Mr. Shoemaker gifted \$1 million to the SME Foundation in the amount of \$100,000 per year until his passing, when the remainder of the gift will be paid. 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 will be honored at the 2015 SME Foundation Gala dinner.



The Minerals Education Coalition (MEC) develops and disseminates fact-based K-12 minerals education activities and informs the general public about the importance of mining in their everyday lives. Thanks to all of our sponsors, volunteers and supporters, 2014 has been a very productive year for the MEC. It has also been a significantly transformative year, as we move toward a broader role in minerals and mining education.

The MEC Committee consists of a diverse representation of the mining industry — 14 members with a commitment to actively participate in fulfilling the MEC’s mission. With Pam Wilkinson serving as chair and Nancy Bingham as vice-chair, the committee provided the MEC with leadership and guidance in its operations, as well as its strategic direction going forward. In order to recognize those making meaningful efforts in education about minerals and mining, the MEC committee selects the winners of the MEC Awards each year.

MineralsEducationCoalition.org

Jan. 1, 2014 – Dec. 31, 2014, the MEC website had 427,623 users viewing 1,335,281 pages. 54,549 educational materials were downloaded from the site, including fact sheets, activities and SMART Board lessons.

MineralsEducationCoalition.org links to other educational websites. In 2014, there were 11,543 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 materials, MEC offers low-cost materials to supplement classroom instruction and for public awareness and community outreach on its website’s online store. This year 28,249 items were sold.

K-12 teacher and student outreach

2014 National Science Teacher Association (NSTA) Area Conferences

Each year, the Minerals Education Coalition

(MEC) participates at three National Science Teachers Association (NSTA) area conferences to provide K-12 teachers, science coordinators, school administrators and informal science educators with credible and comprehensive materials about minerals and why mining is important to our lives and lifestyle. More than 1,800 teachers were served by MEC at this year’s conferences in October 16-18 in Richmond, VA, Nov. 6-8 in Orlando, FL and Dec. 4-6 in Long Beach, CA.

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

For the third year, MEC collaborated with the American Geosciences Institute in its Earth Science Week (Oct. 12-18, 2014) materials and events.

- MEC created a video (at <http://www.earthsciweek.org/esw-denver-MEC>) to highlight the educational resources found on the MEC website. The video was featured in the new Earth Science Week Denver focus. As part of this new, local focus for the event, Colorado Section Denver MEC Chapter members handed out aggregates posters and other materials at the Denver Museum of Nature and Science.
- MEC selected “aggregates” as a theme and developed a new aggregates poster. 16,000 posters were in the AGI Earth Science Toolkit and they are also available in MEC’s online store and being handed out at MEC outreach events. The back of the poster has four activities for classrooms. The MEC also developed the “Aggregates Matter” activity featured as the month of February in AGI’s 2014 ESW calendar for the toolkit.
- In addition to the MEC’s aggregates poster, available from the MEC store, an aggregates teacher guide was developed to allow teachers to get the most out of all of the MEC’s aggregates-related materials. The teacher guide includes answer keys and extension activity ideas for the MEC poster and related AGI calendar page, as well as links to other MEC resources and additional aggregates-related links.

New poster for Minerals in Our Electrical World project

A new MEC Iron Mining and Processing for Electrical Uses poster is available in the MEC online store. MEC’s new poster, Iron Mining and Processing for Electrical Uses, is a companion piece

to the Iron in Our Electrical World video. The 33 in. x 22 in. poster traces the path of mining and processing taconite ore for use in electrical applications, and provides a colorful, informative piece for teachers to put up in the classroom. The video and poster are designed to enhance high school curricula in geology, chemistry, physics and engineering. The poster can be purchased at www.MineralsEducationCoalition.org/store.

New support for section and student chapters

MEC supports SME section and student chapter community outreach with handout materials, activities and staff collaboration. The MEC Committee is also increasing its support for local SME sections. The committee has surveyed sections that are active in outreach about their activities and needs, and invited section representatives to “take a seat at the table with us” to plan the next steps for MEC outreach at the Annual Conference in February. The committee also prepared a short PowerPoint presentation about the MEC and the work the MEC does. SME Section members can show this to their groups to encourage increased collaboration with MEC, the creation of an MEC subcommittee and increased outreach. The committee is also pulling together information about state science teacher conferences for sections because these are great places to get the word out about the importance of minerals, mining, and all of MEC’s free resources for teachers and students.

Merit Badge collaboration with Boy Scouts of America

MEC collaborated with the Boy Scouts of America to develop and launch the Mining In Society merit badge (MiSMB), conducted two webinars on becoming a merit badge counselor and developed and disseminated supporting resources on the MEC website. Since its ceremonious launch at the SME Annual Meeting in February 2014, many members have taken action to assure the availability of qualified counselors and meaningful experiences to assist Boy Scouts who have expressed an interest in earning the badge. www.MineralsEducationCoalition.org/MiningInSocietyMB has information and links to resources to become better acquainted with the badge and how to get involved, and to access teaching tools for use with Scouts as they are completing the requirements such as online virtual mine tours, mining education videos, the MiS merit badge workbook, and posters to promote the Mining In Society merit badge. MEC continues



to host /MiningInSocietyMB and fields questions from interested merit badge counselors, scouts and parents.

New audience interaction through social media

MEC is proud to announce the addition of the MEC Facebook and Twitter pages. Teachers and others can follow postings and tweets to stay up-to-date with all of MEC’s activities. MEC also has the YouTube channel, “MineralsInYourLife.”

2014 Mineral Baby

One of the most iconic and popular items from the MEC is the annual “Mineral Baby” card. Each year, new minerals must be mined to support our lives and lifestyles. The 2014 Mineral Baby shows examples of the 3.03 million pounds of minerals, metals and fuels the average American will need in their lifetime.

New strategic direction

The MEC Committee has defined an exciting strategic direction for MEC educational materials. The MEC will position itself to be a clearinghouse for relevant K-12 (and general) education about minerals and mining. Existing materials will be vetted for peer-review, technical accuracy, industry relevance, state or federal educational standards, and grade level appropriateness. MEC will then host the best available materials on www.MineralsEducationCoalition.org. MEC staff is in the process of creating a matrix of the overall available resources, identifying gaps, and targeting those gaps for future original MEC educational material. To best represent these changes and provide access to materials, the MEC website will receive a makeover.

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. The next M/MP PE Exam will take place Oct. 30, 2015. For the years 2005 through 2014, the examinee count equaled 47, 49, 42, 47, 71, 70, 75, 72, 84, and 95, respectively. Interest in the PE continues to grow.

The percent passing the PE exam for first time examinees for the years 2006 to 2014 are 84 percent, 67 percent, 80 percent, 73 percent, 78 percent, 80 percent, 75 percent, 71 percent and 89 percent, respectively. The exam continues to show stability and effectiveness.

As of Dec. 31, 2014, the 2015 exam was assembled and the 2016 exam is in the process of assembly. The October 2015 examination will be pretested by the PE Exam Committee at its meeting in Denver Feb. 15, 2015. The October 2016 examination will be submitted April 2015 to NCEES. The preparation cycle for each exam is about 18 months.

The 2014 exam was the sixth exam under the new 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 low count of problems flagged for review, which for the October 2014 exam numbered five. As part of the PAKS process, a new study guide was developed in 2010 and continues to be utilized. This SME book, *Study Guide for the Professional Licensure of Mining and Mineral Processing Engineers, Seventh Edition*, is in its second printing. It will be updated to the 8th Edition as part of the PAKS cycle by November 2015.

The review course for the 2014 exam was held in Denver in September 2014, under the direction of Dr. Raja Ramani. Approximately 58 engineers completed the review course, versus 38, 56, 40 and 48 for the previous four years. Feedback from the participants was favorable. Revenue generated by tuition more than covered the cost of conducting the review course. The next review course is tentatively scheduled for September 2015 in St. Louis, MO.

The SME PE Exam committee coordinator attended the required EPE NCEES meetings in Clemson,

SC Feb. 28 – March 1, 2014 and in Atlanta, GA Oct. 24-25, 2014 to report to the NCEES on the performance of the M/MP PE exam. Also, work is conducted on subcommittee charges of the Examinations for Professional Engineers (EPE) at these meetings.

The EPE committee is composed of 16 appointed professional engineers that represent the state boards of professional registration. The states have primacy (the legislative authority) to license engineers, doctors, lawyers and other professionals. The two EPE meetings for 2014 had the following primary developments:

1. The first computerized version of the Fundamental of Engineering (FE) exam (EIT) Exam was successfully launched nationwide to test takers on Jan. 2, 2014. Pass rates are consistent with prior versions.
2. Work is advancing to computerize the PE Exam with most engineering disciplines including Mining/Mineral Processing to 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.
3. The PE exam problem submittal sheet has been revised to include the option to not require a reference for a problem solution as many circumstances a PE faces require practical and experienced acumen.
4. The majority of the 18 U.S. engineering disciplines have decided to write their own computerized PE reference as has the SME PE Committee. The SME PE Committee has a seven-member subcommittee to coordinate writing the manual. The plan is to write a second edition of the popular *SME Mining Reference Handbook* to comply with the EPE directive. The SME subcommittee met twice in 2014 including a Clemson meeting Dec. 11-12, 2014 where Andrea Brickey and the PE Coordinator analyzed the existing problem data bank.

The SME PE Exam Committee continued participation in monthly meetings of the Licensing That Works (LTW) committee. This committee is composed of engineering societies that oppose an initiative 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 LTW committee. At the NCEES August 2014 annual meeting,



Professional Engineers Exam Committee

**Michael X. Schlumpberger,
PE, 2014 Chair**

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

**Heather Dougherty, PE,
Chair-elect for 2016**

the MOE was voted out and replaced by a NCEES committee to replace the MOE with continuing education requirements. MOE sentiment has resurfaced in the fall 2014 in one state legislature.

Andrew Schissler, PE, began serving on an NCEES Committee outlining continuing education requirements for the PE.

As of Dec. 31, 2014, 504 problems were in the bank for use on future exams, up from 401 in 2011. 58 new problems were banked for 2014. The 42-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 in the multiple-choice examination). A robust problem bank is also important, as eight other constraints in exam assembly require a large problem availability and selection.

A special face-to-face meeting of SME PE Exam Committee occurred Sept. 28 where problems were written and reviewed. Having two in-person meetings of the SME PE Committee increases productivity and follows the practice of the other 17 U.S. engineering societies.

The SME PE Exam Committee, in cooperation with the Education Committee, was tasked with evaluating the current state of mining/mineral processing students' performance on the Fundamentals of Engineering (FE) exam. The need of the study was driven by the historical low passing percentage of mining / mineral processing undergraduates as compared to 17 other disciplines. For example, for 2013 FE exams, first time mining/mineral processing test takers had 61 percent passing as compared to a straight arithmetical average of 76 percent for the other 16 engineering disciplines. Andrea Brickey, SME PE Committee member, spearheaded a survey sent to the U.S. mining schools. Key comments from the 161 students and five mining departments who responded from across the United States are:

- 75 percent of students plan to take the FE exam.
- The majority (43 percent) of students planning to take the FE exam are doing so in order to become licensed Professional Engineers.
- 89 percent of the U.S. mining schools encourage their students to take the FE exam, but student knowledge of FE preparation courses was limited, with only 50 percent student awareness that the department offered a preparation review.

- Only 16 percent said that they could pass the FE exam without a review course.
- When asked what would motivate those unsure about taking the FE exam, 32 percent responded with a request for a free online review course for the exam, while 30 percent stated that exam reimbursement after passing would be a motivator. Reduced SME membership was less important (14 percent), as was a free book from the SME bookstore (12 percent).
- When the students were queried about suggestions for what the school/university could do to help them successfully take and pass the exam, the majority of the comments related to providing clearer information regarding the mechanics of registering for the test and providing additional/more detailed/online review courses and materials, to include practice tests.

Based on the information from the survey, the PE Committee recommends that efforts be made to improve awareness of the benefits and process of obtaining a professional licensure. This could be accomplished by partnering with university departments to offer guest lectures/presentations. As part of these presentations, various benefits could be addressed such as available preparatory courses, the process of registering for the exam and encouraging students to think long-term regarding their career

Heather Dougherty, SME PE Committee member, represented SME at the Grand Challenge, a two-day Washington, D.C. conference in May 2014 attended by educators for the purpose of raising the bar for university engineering and science education.

Many planned activities occurred in 2014 relating to the Professional Activities and Knowledge Study (PAKS). 14 SME PE Committee members met at SME headquarters Sept. 27, 2014 to structure a survey to send to U.S. PE's, primarily mining/mineral processing to validate the knowledge areas the PE exam tests. The survey was launched using email and USPO Nov. 21 closing January 2015. As of Dec. 29, we had 394 responses, substantially more than the 200 minimum required. The PAKS occurs every seven years to update and thoroughly review the context of the PE exam. The SME PE Committee will meet Feb. 14 to finalize the subject areas for the PE exam using the survey results.

In 2014, 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 work when finished will be used in the public and private sector to advance criteria for engineers.

The National Action Council for Minorities in Engineering (NACME) joined ABET as an associate member. NACME will reinforce ABET's efforts to include the perspective of socioeconomic groups currently underrepresented in technical fields. A complete list of ABET's member societies can be found at <http://www.abet.org/member-society-list/>.

President's report

President Monte Phillips summarized ABET's activities and accomplishments in the past year. In the 2013-2014 cycle, 145 new programs underwent initial review, including 97 from outside the United States. The 2014 ABET Symposium exceeded expectations with 703 attendees, 148 of whom were international attendees from 26 countries. Other activities reported on include the analysis of PEV needs for the next five years, development of the Learning Center, and conducting a comprehensive brand and reputation assessment.

Report from the governance structure task force

Karan Watson, chair of the Governance Structure Task Force (GSTF), presented the proposed revised governance structure and the amendments to the ABET governance documents, specifically the constitution and bylaws, to reflect the restructure. The board of directors approved the revised governance structure and the amendments to the constitution and bylaws. The revised approved constitution and bylaws will be circulated to ABET's member societies for ratification. These amendments require two-thirds ratification from the member societies to be implemented.

Report from the treasurer

Craig Musselman, ABET treasurer, reported on ABET's preliminary financial results for the fiscal year ending Sept. 30, 2014. The preliminary results show a contribution to reserves of \$448,000, \$250,000 more than what was forecasted for the year at the end of August.

ABET Learning Center

The ABET Board of Directors approved an increase

in the authorized budget not to exceed \$930,000 for the build-out of the ABET Learning Center, which will be located on the third floor of ABET headquarters. The Learning Center will be used for ABET's professional development offerings, workspace for staff and can be made available for use by ABET member societies. The Finance Committee will oversee and approve expenditures.

Amendment of ABET rules of procedure

The ABET Board of Directors approved the amendment of the ABET Rules of Procedure, Section 2.G.4 (appointments and terms). The amendment allows commissioners to be re-nominated to the same commission after a suitable interval, not shorter than one year. It also limits commissioners from serving more than five complete consecutive annual terms on any individual commission. It also allows, at any point, and with no interval, for a person to serve on a second commission for up to five annual terms.

Reports

Written reports were submitted by the Global Council, awards committee, strategic plan committee and the Public Board Member Committee. These reports summarized the work of the committee's since the March board of directors meeting. Oral reports were provided by the Academic Advisory Council (AAC) and Industrial Advisory Council (IAC).

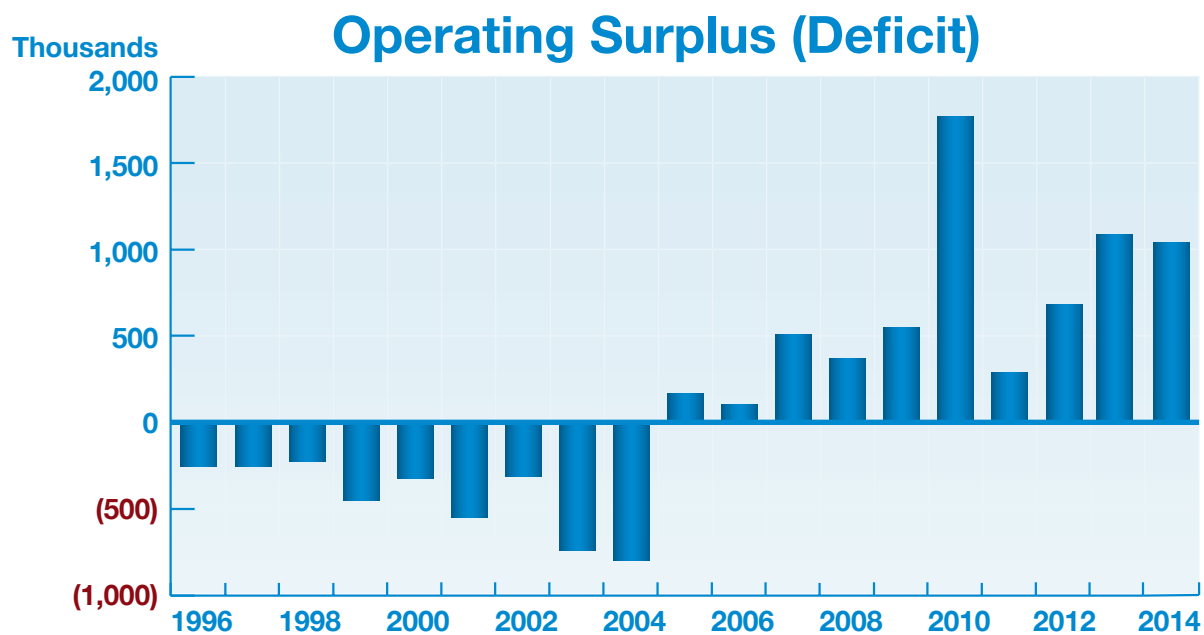
Report on federal issues affecting accreditation

Charles Hickman, ABET managing director of Society, Volunteer and Industry Relations, updated the board on current federal dialog concerning accreditation. The renewal of the Higher Education Act (HEA) will be delayed until at least 2015. The general political environment regarding accreditation issues remains hostile, mostly due to the lack of understanding among both elected official and legislative staff about the historic purposes of accreditation, the processes used to implement it, and the recent shift by many agencies to outcome measures and assessments.

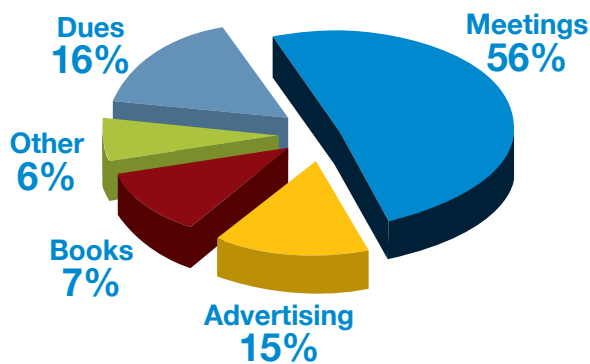
Fiscal 2014 revenue from operations was only slightly lower than last year and was better than budget by 6 percent. This marks the tenth consecutive year of operational surplus. FY 2014 operational surplus was the second highest in SME's history if we exclude the nearly \$1 million donation received in FY 2010.

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.

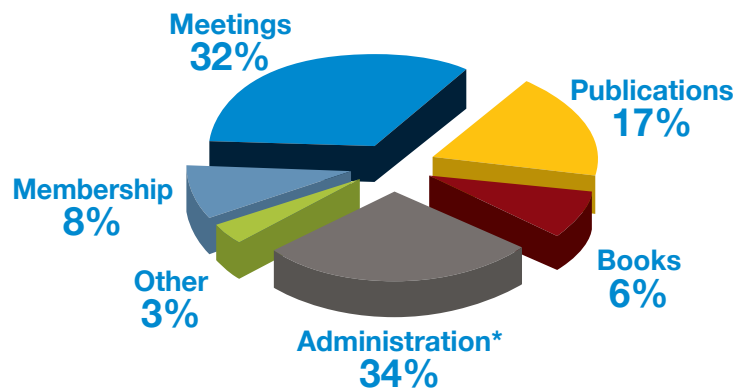
Net assets for all entities of fiscal year 2014 exceeded \$27 million.



Operating Revenue (Sources)

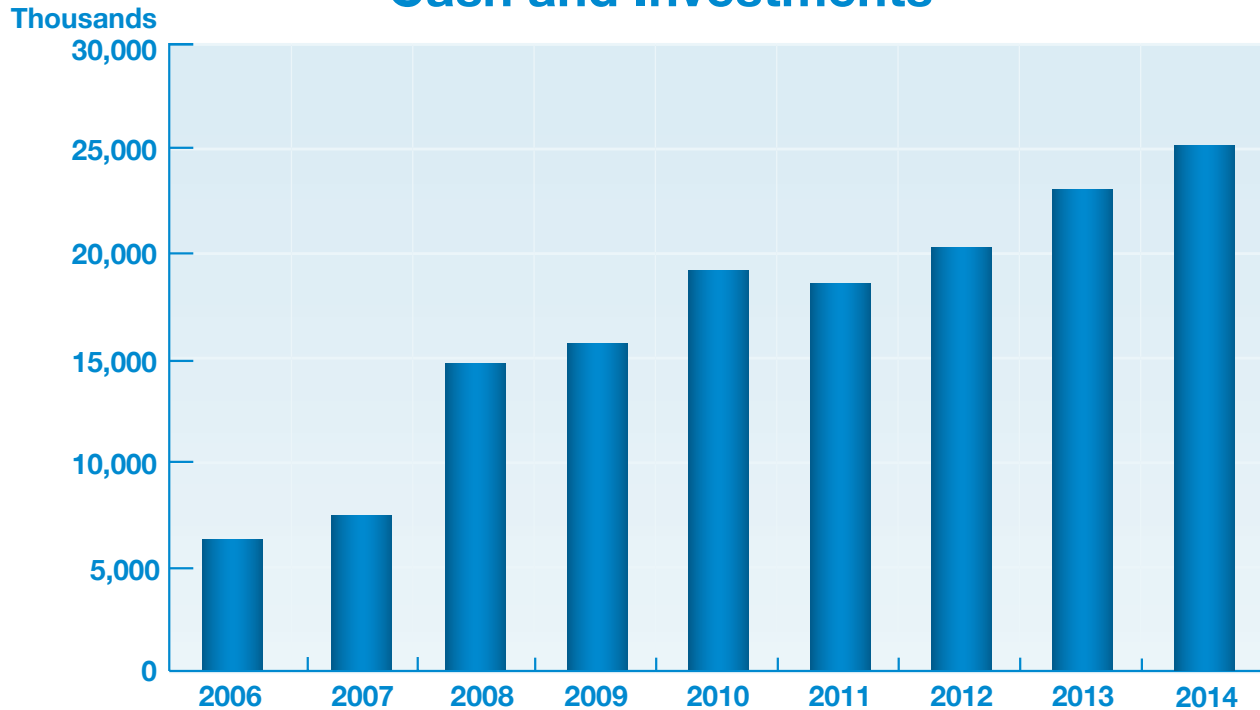


Operating Expenses



* 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	Ta M. Li
AIME Honorary Member	William H. Wilkinson
Frank F. Aplan Award	Robert C. Bratton
Robert Earl McConnell Award	David B. George
Charles F. Rand Memorial Gold Medal	Thomas V. Falkie
Mineral Industry Education Award	Jon Kellar

SME Awards

SME Distinguished Member	Alan A. Campoli
SME Distinguished Member	Steven C. Holmes
SME Distinguished Member	Jeffery Kohler
SME Distinguished Member	Gerald H. Luttrell
Health and Safety Individual Excellence Award	Mike Kridel
Health and Safety Research and Educational Excellence Award	Southern Illinois University Carbondale – Yoginder (Paul) Chugh, Harrold Gurley, John Pulliam
Outstanding Student Chapter	University of Arizona
President’s Citation	Hugh B. Miller and Courtney Young
President’s Citation for Local Section Service	Kenneth J. Reid
Ivan B. Rahn Education Award	Mary Poulton
Past President’s Plaque	John O. Marsden

SME Foundation Awards

MEC Leadership Award	Angie Harmon
MEC Organization Recognition Award	SME Florida Section
MEC Partnership Appreciation Award	MineZone Program of the Paradise Valley Unified School District
MEC Student Chapter Award	University of Arizona Student Chapter
Syd S. Peng Ground Control in Mining Award	Stephen C. Tadolini

SME Division Award Recipients

Coal & Energy Division Awards

Coal & Energy Division Distinguished Service Award ····· Susan Bealko
 Howard W. Eavenson Award ····· Christopher Pritchard
 Erskine Ramsay Medal ····· Daniel Su
 Stefanko Best Paper Award ····· Gerald Luttrell, Aaron Noble and Fred Stanley
 J.W. Woomer Young Engineer Award ····· Steven Keim
 Coal & Energy Division Past Chair Award ····· Nikky LeBranche

Environmental Division Awards

Environmental Division Distinguished Service Award ····· Arden Davis
 SME/AIME Environmental Conservation Distinguished Service Award ····· James Gusek
 Environmental Division Past Chair Award ····· Virginia McLemore

Industrial Minerals & Aggregates Division Awards

Industrial Minerals & Aggregates Distinguished Service Award ····· Srinivas Veeramasuneni
 Hal Williams Hardinge Award ····· William A. Langer
 Industrial Minerals & Aggregates Division Young Scientist Award ····· Xihui Yin
 Robert W. Piekarz Award (Aggregates) ····· Justin Zdunczyk
 Robert W. Piekarz Award (Industrial Minerals) ····· Jerry Gauntt
 Industrial Minerals & Aggregates Division Past Chair ····· Gordon Stevens

Mineral & Metallurgical Processing Division Awards

Antoine M. Gaudin Award ····· Philip Walker
 MPD Outstanding Young Engineer ····· Kimberly D. Mills
 Robert H. Richards Award ····· Rick Q. Honaker
 Arthur F. Taggart Award ····· P. Jonsén, J.F. Stener, B.I. Pålsson and H-Å. Häggblad
 Milton E. Wadsworth Award ····· David B. George
 Millman Poem (MPD Past Chair Award) ····· John Uhrie

Mining & Exploration Division Awards

Ben F. Dickerson Award ····· Larry Smith
 Mining & Exploration Division Distinguished Service Award ····· Shaun P. Graber
 Daniel C. Jackling Award ····· Murray W. Hitzman
 Mining & Exploration Division Outstanding Young Professional Award ····· Jonathan B. Taylor
 Robert M. Peele Memorial Award ····· Stacey E. Leichter
 Miner of the Year ····· Clyde H. Peppin
 Rock Mechanics ····· Hamid Maleki
 M&E Division Program Area Managers ····· Leigh Freeman, Kirk Hanson, Ebrahim Tarshizi
 and Todd Wakefield
 William L. Saunders Gold Medal ····· Bill Zisch
 M&E Division Past Chair ····· Catherine Dreesbach

Division Scholarships

Coal & Energy Division Scholarship

Ashleigh J. Mitchell

New Mexico Institute of Mining and Technology

Ashley Nuhn

Missouri University of Science and Technology

Colton Chase Parsons

University of Kentucky

Crystal K. Darger

University of Utah

Darryl Smith

Southern Illinois University at Carbondale

Douglas K. Addo

University of Kentucky

Jack Maxey

Virginia Polytechnic Institute and State University

Julia Elizabeth Reichardt

West Virginia University

Melissa Anderson

Colorado School of Mines

Mindona Krzykowski

University of Alaska Fairbanks

Sharans Kabra

Indian School of Mines

Walter Price

Pennsylvania State University

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

Anthony Jamerson

Southern Illinois University at Carbondale

Aubrey Athey

Virginia Polytechnic Institute and State University

Carolyn Kosloski

Virginia Polytechnic Institute and State University

Chelsea Barrett

Virginia Polytechnic Institute and State University

Gautam Drolia

Indian School of Mines

Jake Colby Seiter

University of Utah

Jeffrey Stevens

West Virginia University

Nathan Ellgen

University of Utah

Rahul Deshmukh

Indian School of Mines

Richard Rowe

University of Utah

Sidharth Mahajan

Indian School of Mines

Sunny Soarabh

Indian School of Mines

Environmental Division Scholarship

Angela Rusconi

Virginia Polytechnic Institute and State University

Juliana Gil-Loaiza

University of Arizona

Noah Buikema

Michigan Technological University

Veolia Water Solutions and Technologies Scholarship (Environmental Division)

Carolyn Kosloski

Virginia Polytechnic Institute and State University

Gerald V. Henderson Memorial Scholarship (Industrial Minerals & Aggregates Division)

Ebrahim Karimi Tarshizi

University of Nevada-Reno

Richard Klimpel Memorial Scholarship (Mineral & Metallurgical Processing Division)

Jordan Rutledge

Colorado School of Mines

Mineral & Metallurgical Processing Division Scholarship

Caelen D. Anderson

Colorado School of Mines

Joseph Grogan

Colorado School of Mines

Juan Ma

Virginia Polytechnic Institute and State University

Manjunath Basavarajappa

University of Utah

Myriah Santistevan

South Dakota School of Mines and Technology

William Yin

Queens University

Mining & Exploration Division Scholarships

Chelsea Pomeroy

Colorado School of Mines

Kathryne Sewester

Missouri University of Science and Technology

Russel Spaulding

University of Utah

Simon Ortega

University of Alaska Fairbanks

WAAIME Division Scholarships are listed on page 23

**Eugene Pfeleider Memorial Scholarship
(Mining & Exploration Division)**

Ashlyn Hooten
University of Arizona

Steven C. Potter Scholarship (Mining & Exploration Division)

Douglas Conner
Colorado School of Mines

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

Ebrahim Karimi Tarshizi
University of Nevada-Reno

**Stewart R. Wallace Memorial
Scholarship**

Jena Long
Colorado School of Mines

**2013 SME Foundation
Scholarship Recipients**

J.H. Fletcher & Co. Scholarship

Ashley Hodgson
University of Utah

Peter Mather
University of Arizona

McIntosh Engineering Scholarship

Aaron Larry
University of Utah

Ashlyn Hooten
University of Arizona

Jake Colby Seiter
University of Utah

MMSA/SMEF Presidential Scholarship

Colton Chase Parsons
University of Kentucky

Crystal K. Darger
University of Utah

Kathryne Sewester
Missouri University of Science and Technology

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

Behrooz Abbasi
Southern Illinois University at Carbondale

Christopher Newman
West Virginia University

Evan Keffeler
University of Nevada-Reno

Kevin Harris
University of Kentucky

Peng Zhang
West Virginia University

SME President's 2014 report

(Continued from page 2)

tion and its fund-raising efforts in 2014, under the sage and highly effective sponsorship of Red Conger and Rick Whiting. The SME Foundation has been revitalized and re-energized under the banner "Creating Global Prosperity: The Campaign for Mining." A program of corporate sponsorship with a focus on year-over-year giving has been advanced, with annual contributions of almost \$1.6 million obtained in 2014. These funds are targeted at supporting the implementation of SME Foundation-approved programs including; the Accreditation Board for Engineering & Technology (ABET), Professional Engineer (PE) registration, the Minerals Education Coalition (MEC), scholarships for study in mineral-relevant programs and tertiary education sustainability (faculty development). All of these programs receive critical funding from the Foundation. SME and the Women's Auxiliary of AIME (WAAIME) offered more than \$400,000 in scholarships for mineral education in 2014, a staggering amount. Also, it should be noted

that the number of applicants taking the Mining/Mineral Processing PE exam has doubled since 2005, which is a reflection of SME's efforts in this area. I would argue that in 2014, the fund-raising efforts of SME have never been more needed or more effectively utilized.

As the year ends, I am pleased to hand over the reins to Steve Gardner as your incoming president for 2015. Steve has been engaged in all aspects of SME's strategic planning and mission execution throughout the year and I am confident that he will lead SME very capably going forward. Finally, I would like to offer my thanks and appreciation to the SME staff for their hard work and dedication in advancing SME through challenging times and to all of the many SME member volunteers that generously donate their time and expertise to serving on the SME board, the SME Foundation board, strategic committees, standing committees, ad hoc committees and representing the divisions. SME is there to serve and support its members and your involvement makes this service and support possible.





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