



Business Meeting
Wednesday, November 6, 2013

Goal/Focus

- **Main goal ~~this~~ last year** → machinery and structure in place to allow EduDiv to work towards meeting its stated objectives

Meeting Focus

- Information dissemination to membership
- Opportunity for committees to identify opportunities for members (and obtain feedback)
- Updates at Institute levels
- An opportunity for the discussion of new business

HOW DO YOU ENGAGE WITH?

*some highlights from the
Division/Forum questionnaire,
Summer 2013*

...engage with AIChE Local Sections?

- subcomm's to work with those local sections that have many Div/Forum members and companies
 - ETPC, F&P, MGT
 - South TX, Chicago, Western PA, Grtr Salt Lake
- programming in local section events
 - S&H - process safety program in South TX
- virtual local section, webinars
 - NE, ETPC

...engage with students?

- Social and networking
 - discount lunch, sponsor mixer
 - UE&FA, FP&BE, CAST
- Poster sessions, awards
 - NE, NSEF, MESD, CRE, NAMEF, CAST
 - ENV (undergrad *and* grad)
- Student programming, tutorials, workshops
 - PD, NAMEF, MGT

... engage with students (cont'd)

- Direct contact and lectures at universities
TEP, PD
- Washington Internships for Students of Eng (ENV)
- Social media (FPSE)
- Multiple modes
 - SEF - Education Committee to coordinate
 - EDU
 - K-12 outreach at Annual
 - Undergrad student conference liaison
 - Grad/Postdoc “Meet the faculty candidate” poster session
 - FUTURE FACULTY MENTORING PROGRAM

... engage with Young Professionals?

- Certification, Training, Publications
 - TEP, S&H, ETPC
- Social, Networking, Mixers
 - S&H, PDD, NAMF, F&PD, CRE
- Social media, ChEnected
 - SEP, MGT
- Tutorials, Workshops, Career mentoring
 - SEP, F&PD, NAMF (including Young Faculty award), EDU, ENV
- YP liaison, Cosponsored sessions at Annual/Spring
 - SEP, PDD, F&PP, EDU, MGT, FP&BE

...engage with other AIChE D&Fs,
AIChE ITGs, or non-AIChE societies

- Specialized meetings, often cosponsored
 - TEP - January meeting
 - PTF - World Congress on Particle Tech
 - with other soc's, (e.g., Soc Powder Tech Japan)
 - FBP - World Congress Sustainable Eng
 - with other soc's (e.g., Chinese counterpart)
 - COMSEF - Foundations of Molecular Modeling
 - ENV - Workshop on Water Reuse
 - with Air & Water Management Association
 - NAMF - Biennial North American Mixing Conference
- participation in ITG
 - e.g., Nuclear (NE, ENV, NAMF)

...engage with other AIChE Divs/Forums, AIChE ITGs, or nonAIChE socs

- Webinars, publication (ETPC, NED)
- Liaisons and partnerships, with regular cosponsored programming - for instance...
 - UE&FA with SPE
 - S&H with SACHÉ and CCPS
 - NAMF with Euro Mix Conf, ISMIP
 - FP&BE with SBE, ACS
 - FBP with SEF, ENV
 - EDU with CACHÉ, SACHÉ, AIChE committees and ASEE
 - CRE with ISCRE

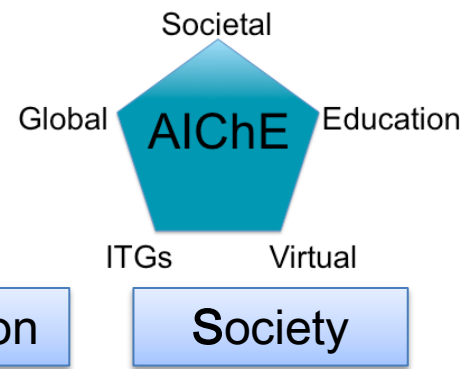
Question: Concerns from Divs/Forums for CTOC?
(or for CTOC to help bring to other parts of AIChE?)

- Help spread word to AIChE what Div/Forum provides
 - e.g., EDU with Future Faculty Mentor program etc.
- Help ‘marketing’ of the Div/Forum to prospective members, make YP contacts
- Help benchmark with other D&F’s
- Help in “managing programming collaborations”
- Help D&F’s contribute to and communicate with ITG’s
- Clarify roles of CTOC and EBPC wrt D&Fs
- Help identify possible award sponsors
- Help track membership trends and contacts with database

Some observations

- D & F's by and large operate independently – longstanding, constituency-based, desired way of operation
- Content D & F “interdisciplinarity” at Programming, Board of Directors and Institutes
- Individual D & F's interact with multiple institutes

Strategy



- Become a **global** organization of Chemical E. practitioners
- Strengthen existing and create new **industry and technology groups**
- Develop innovative products/services using **virtual** technologies
- Engage others in improving the undergraduate curriculum and promote lifelong learning **education**
- Impact **society** by educating the public and government on complex technical issues



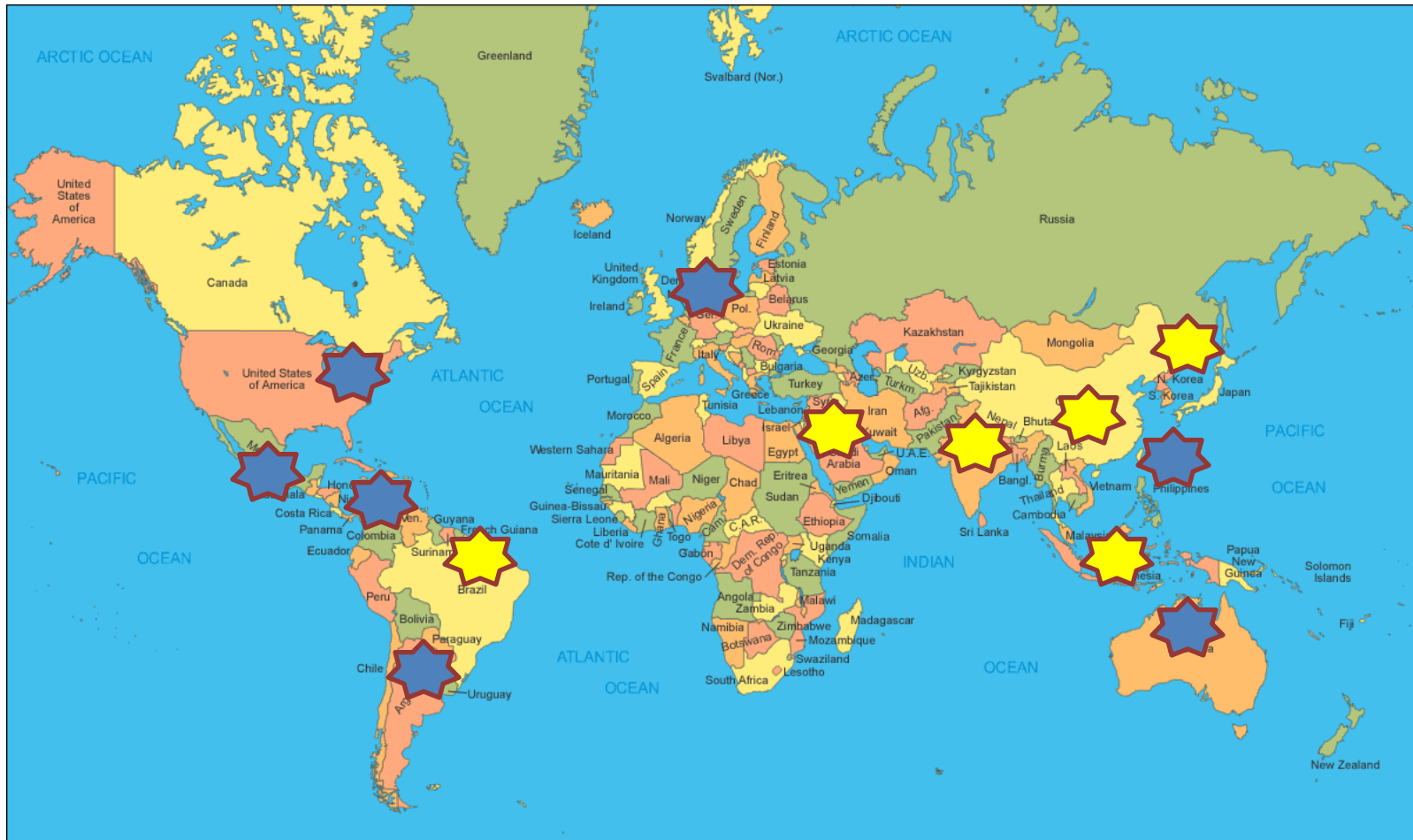
**AIChE's Global Strategy:
Become a global organization of chemical
engineering practitioners**

Why?

- Membership & reach
- Sale of products & services
- Global nature of the chemical enterprise
- Competition is expanding – we can't find ourselves left behind

Where?

AIChE and CCPS Expanding Presence



Yellow areas are
our focus

Global Reach

Student Chapters



Some of our Recent Activities

- Opened CCPS office in Germany with DECHEMA
 - Held workshop on process safety & Ammonia conference
- Attended AIChE's Middle East Process Engineering Conference in Bahrain
 - Meetings, booth, plenary by Westmoreland
- Met with societies, industry groups, companies, universities and members in Brazil (Sheldon, Wispelwey, Lawler)
- Held 5th Latin American Process Safety Conference in Colombia
- Signed partnership agreement at IMIQ Annual Meeting in Mexico (Sheldon)
- Expanded presence at World Chemical Engineering Conference in Korea
 - Member reception, booth, talks by Westmoreland and Wispelwey
- Opened office in India for staff & meetings
- Visited 7 universities in China (Westmoreland)
- Held first CCPS Australia-Oceania Workshop on Process Safety

Global Reach

Events, Education & Journal

Attendees to Meetings

	Total 5 year average %
Annual	19%
Spring	22%
Ammonia	54%

24% of
registered
attendees in
SFO!

In-company Attendees 2013

	Global Locations
In-Company	36%

E-learning Registrants

	Total
E-learning	25%

Webinars

	Total
Webinars	21%

75% of accepted papers for AIChE Journal come from International authors

Global Reach

Chemical Engineering Progress

- **Global Coverage**

- China, April 2011
- Japan, June 2011
- Brazil, Aug. 2011
- Germany, Oct. 2011
- South Korea, Dec. 2011
- Taiwan, April 2012
- Netherlands, June 2012
- Spain, Aug. 2012
- Mexico, Oct. 2012
- U.K., Dec. 2012
- Denmark, Feb. 2013
- Singapore. Apr. 2013
- Nigeria, June 2013

- **In Progress**

- Switzerland, Italy, Argentina, —
In progress: commitments
obtained from authors, articles
are being written
- Saudi Arabia, France —
contacted but no reply yet
- South Africa, Russia - TBD
- Suggestions for authors in other
countries can be given to Ignacio
Grossmann or CFM.
- We plan to have a news story on
the AIChE/ICHEME, AIChE/KICHe
(Korea), and U.S./India sessions
at the Annual Meeting.

**International Committee has
been instrumental in engaging authors**

Visits from:

	<u>2012 –2013</u>	<u>2011–2012</u>	<u>2010–2011</u>
• US	1,296,682	921,038	819,554
• India	88,384	70,973	59,294
• Canada	58,963	41,832	39,843
• UK	57,180	39,377	32,912
• China	42,932	32,181	24,718
• Japan	42,657	18,269	15,659
• Germany	32,837	22,642	20,535
• Brazil	28,487	18,516	15,003
• Australia	24,220	15,457	13,113
• South Korea	21,909	16,598	11,636
• Columbia	20,537	15,229	10,929
• Mexico	20,111	16,178	12,930
• Netherlands	19,570	10,940	8,589
• Malaysia	19,137	12,243	10,869
• Singapore	18,556	12,240	10,258
• France	17,811	12,436	11,035
• Iran	16,453	12,838	11,211
• Saudi Arabia	16,316	10,570	8,392
• UAE	10,785	6,058	5,055

Increase since 2010-2011

58% increase in US

49% India

74% China

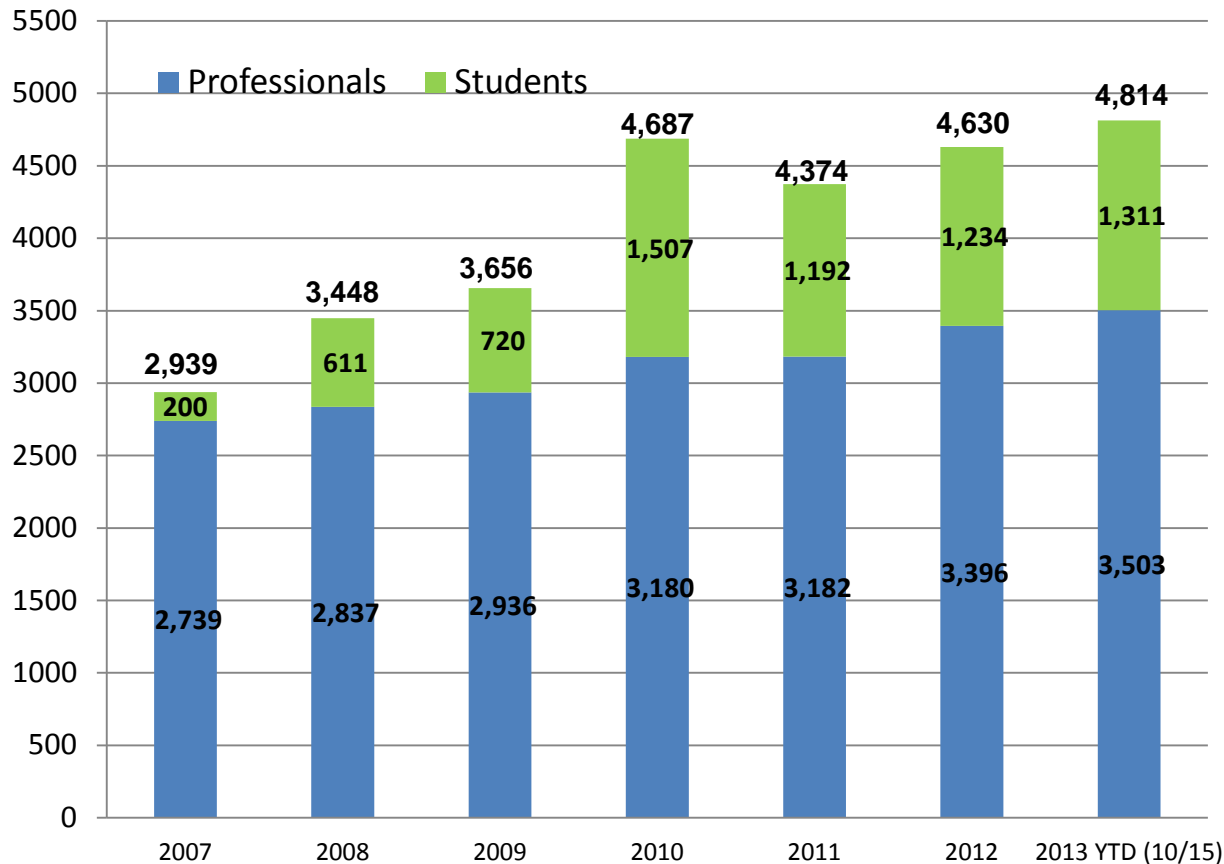
89% Brazil

87% South Korea

81% Singapore

94% Saudi Arabia

International Membership



Professional
Membership

**YTD Up 3%
from 2012**

**9% increase
from 2010**

**22% increase
from 2007**

**CAGR
3.58%
Over 7 yrs**

Education

E-learning

Cheme On Demand

ILT courses

ChemE on Demand

- Over 2,000 pieces of content
- Launched in mid-2009
- Over 12,000 purchases have been made
(Mostly with COD credits)
- Add another 400 from Annual Meeting

eLearning

- 42 eLearning products
- Since inception in mid 2011, over 21,000 orders have been received
- Of that, 1,040 are sales to professionals. Balance are SACHÉ
- The committee has launched 6 new courses in 2013 and have another 6 in development for launch in 2014
-

Instructor-Led Training (ILT)

- ILT titles, with approximately half of them running publicly and all available on an in-company basis.
- In 2013 we expect approximately 500 attendees across all public courses and another 800 to 900 in our 40-odd in-company offerings.
- CCPS Process Safety Boot Camp is far and away the best seller in this category.

AIChE Academy

- Plans are underway to formally combine all efforts of the existing Education department with augmented curricula for engineers across all stages of the career lifecycle.
- An adult learning expert who is a ChE, and who is very involved with the BOK project, has been retained to describe and manage the implementation.
- Key milestones are:

– Develop 1st pass curriculum	10/21/13 - 11/1/13
– Identify highest priority course	11/6/13 - 11/12/13
– Deliver pilot course to AIChE	2/19/14 - 2/19/14
– Learning objectives for courses	11/20/13 - 12/13/13
– Issue final report to AIChE	1/15/14

EduDiv Board of Directors

Don Visco, Chair

Jason Keith, 1st Vice-Chair

Taryn Bayles, 2nd Vice-Chair

David Silverstein, Past Chair

Benjamin Davis, Secretary-Treasurer
(2013-2015)

Milo Koretsky, Director 2010-2013

John O'Connell, Director, 2011-2014

Tim Anderson, Director, 2012-2015

Election Results

Ben Davis

- Elections for Director, 2nd Vice-Chair, Secretary-Treasurer held July 31, 2013 – August 31, 2013
- Professional Members as of 7/31/2013 were eligible to vote (179) – 84 total votes cast (47% response rate)
- Robert Hesketh elected Director for 2013-2016
- Matthew Liberatore elected 2nd Vice-Chair for 2013-2015
- Benjamin Davis re-elected (unopposed) Secretary-Treasurer for 2013-2015
- Election in 2014: Past Chair (Visco) is the Chair for the Nominating Committee
 - Director to be contested

Officer/Committee/Liaison Information and Reports

- **Financial** (Ben Davis)
- **Membership** (Tim Anderson/Christi Patton-Luks)
- **Programming** (Jason Keith/Taryn Bayles)
- **Course Survey** (Margot Vigeant /David Silverstein)
- **International** (Said AbuBakr/Marcel Liauw)
- **K-12** (Ben Davis)
- **Awards** (John O'Connell)
- **Future Faculty** (Milo Koretsky)
- **SACHE Liaison** (Chip Howat)

Financial

Ben Davis

- September 2013 balance: \$7,043.78
- Income, year to date: \$2,584.50
- Expenditures to date: \$102.52 (Award Plaque)
- September 2012 balance: \$5,703.46
- 2013 predicted expenses: honorarium, FFMP Lunch, Banquet cost, website renewal
- All income from dues, banquet fees, and a modest interest collection
- 2014 Expenses:
 - Banquet (net neutralish)
 - Lunch for Future Faculty Mentoring Program
 - Honoraria/plaques for 3 Division Awards
 - Printing fees for newsletter
 - Domain registration fee
 - Suggestions for budget?

Membership

Christi Patton Luks & Tim Anderson

- As of 10/29/2013
 - 189 2012 members
 - Compare to 169 in 2011; 187 in 2012
 - 10 student members (grad/ugrad)
 - 22 international professional members (21 last year)
 - 28 AIChE Fellows (18 last year)
 - 33 industrial members (22 last year)
 - Target was 250
 - Best way to join: Call 1-800-242-4363

2013 Conference Programming

Program Chairs, Jason Keith / Taryn Bayles

- 30 sessions (including 6 workshops) with several co-sponsored sessions
- Growth from last year = success!
- 2 Sessions on Computing and Technology
 - Computing and Technology in Education: The First Year Experience
 - Workshop on Computing and Interactive Games Learning
- Honorary Sessions
 - Memorial Session in Honor of Don Woods
 - In Honor of John Prausnitz's 85th Birthday
 - In Honor of the Lewis Award Winner: William Deen
 - Inspired by Phil Wankat

2013 Conference Programming

Program Chairs, Jason Keith / Taryn Bayles

- ABET Sessions
 - Tuesday morning updates
 - Tuesday afternoon best practices session
- Safety sessions
 - One session and one workshop
- Free Forum
 - Two sessions
- On-going “How We Teach” Sessions
 - Survey reports on electives + “Issues / Challenges: Design”
- 6th Annual Education Division Dinner, ~35 attendees

2014 Conference Programming

Program Chairs, Taryn Bayles / Matt Liberatore

- New Orleans (3/30/2014 – 4/3/2014)
 - Spring Meeting → Group 4 programming
 - Most likely one sponsored sessions
 - Free Forum on Engineering Education
- Fall Meeting: Atlanta (11/16 – 11/21)
 - If interested in moderating a session, contact Taryn Bayles (tbayles@umbc.edu)

Course Survey Committee

Chairs, Margot Vigeant/David Silverstein/ Ben Davis

- 2013: Electives – Session at 3:15 PM Wednesday, US 25
 - About 90 responses this year to part 1
 - Part 2 going out momentarily, long-form questions
- Help us define the curricular state-of-the-art for ChemE
- Volunteer to help with –
 - Writing the survey (easy to say, harder to do)
 - Making sense of the data and sharing it
- Or.....
 - Be sure that your department completes its survey each year!
- Upcoming
 - Transport
 -
- CONTACT: Margot Vigeant – mvigeant@bucknell.edu
- CONTACT: Daniel Lepek – lepek@cooper.edu

International

Said AbuBakr & Marcel Liauw

Mission of the Committee:

- To promote the international aspects of chemical engineering education and profession to reflect the changing chemical engineering profession
- To foster international collaborative discussion on critical international issues of chemical engineering education, the profession, safety and society
- To enrich the mission of the Education Division and to work with AIChE international Committee

Objectives of the Committee:

- Initiate a session at the 2013 AIChE Annual meeting to share information on international aspects of chemical engineering education, research and profession (International House of ChEs)
- Invite funding agencies from the U.S. , European Union, China, Japan, Russia, India, Brazil, Middle East, and other countries to promote international collaborative education and research
- Seek collaborative relationships with similar organizations focusing on Chemical Engineering education in the world to share good practices in safety, sustainability, and biological engineering
- Assess and if appropriate make recommendations regarding how the committee is serving the international charter of the institute

K-12

Chair, Ben Davis

- Frank Petrocelli of Air Products / SIOC has organized volunteer events for local high school students around the last three meetings (Pittsburgh, San Antonio, San Francisco)
- Events have had ~50 students with some teachers and parents, with ~10 volunteers from industry/academia + students
- AIChE will have a booth at the 3rd USA Science & Engineering Festival Expo from April 25-27, 2014 in Washington, D.C. , will be attended by thousands of students (Volunteers?)
- If you are interested in helping out, E-mail Frank PETROCFP@airproducts.com or Ben davisb@cooper.edu
- Other possible ideas needing volunteers/leadership: workshops for middle/high school teachers, online lesson repositories

Awards

Chair, John O'Connell

- **Education Division Award for Excellence in Engineering Education Research**
 - Recognizes outstanding research in education, with a focus on chemical engineering pedagogy, encompassing methods, applications, and assessment.
- **Education Division Award for Service to Chemical Engineering Education**
 - Recognizes an individual who, within 20 years of completion of the highest degree, has shown dedication and broad service to chemical engineering teaching and learning, especially in Chemical Engineering professional societies.
- **Education Division Award for Innovation in Chemical Engineering Education**
 - Recognizes an individual who has implemented a pedagogical innovation into a class or course that has made a significant and documented positive impact on teaching effectiveness and has enhanced student learning.

Future Faculty Program

Coordinator, Milo Koretsky

Mentors NEEDED

	<u>Mentor</u>		<u>Mentee</u>	
1.	Kyongbum Lee	Tufts University	Quing Hua Wang	Northwestern University / Massachusetts Institute of Technology
2.	Matthew Liberatore	Colorado School of Mines	Matt Green	Virginia Tech / University of Delaware
3.	Sundar Madihally	Oklahoma State University	Ashlee Ford Versypt	Massachusetts Institute of Technology
4.	Adrienne Minerick	Michigan Technological University	Shelby Hutchens	California Institute of Technology / University of Massachusetts
5.	Adrienne Minerick	Michigan Technological University	James Radich	University of Notre Dame
6.	John O'Connell	University of Virginia	Matthew Panthani	University of Texas / University of Chicago
7.	Skip Rochefort	Oregon State University	Leah Bendavid	Stanford University
8.	David Silverstein	University of Kentucky	Isabel Jimenez Useche	Purdue University
9.	Heath Turner	University of Alabama	Matteo Cargnello	University of Trieste / University of Pennsylvania

Liaison Reports

- SACHe (Chip Howat) → cshowat@howatrisk.com
 - Attended SACHe meeting over the weekend.
 - SACHe is anxious to provide materials easily and effectively to support process safety education.
- SACHe wants to know:
 - Are their products useful in university classes?
 - Does the EduDiv has suggestions for products?
 - Is the organization of material (e.g. on the website) useful?
 - Feedback from users on eLearning products.
 - How can SACHe assist the Education Division in meeting ABET requirements (criteria and program)

Help Wanted

- Jessica Eastman is stepping down as the newsletter editor – Big “Thank you!” to her
- **We need a new editor!**
 - Submissions are intended to be opinions, short articles, experiences, ideas– anything that won’t fit in a journal article but would be of interest to ChE instructors
 - Contact Ben Davis – bdavis@cooper.edu

Other items

- New Business – Jason Keith