

AMERICAN SOCIETY FOR ENGINEERING EDUCATION CHEMICAL ENGINEERING DIVISION

Business Meeting Minutes
Tuesday, June 26, 2018 – 5:00 PM – 6:00 PM
150E Convention Center, Salt Lake City, UT

Attendees and Affiliations

| | |
|---------------------|------------------------------------|
| Daniel Anastasio | Rose-Hulman |
| Chris Barr | University of Michigan |
| Taryn Bayles | University of Pittsburgh |
| Cheryl Bodnar | Rowan |
| Michael Borankin | Colorado School of Mines |
| Janie Brennan | Washington University in St. Louis |
| Lisa Bullard | North Carolina State |
| Daniel Burkey | University of Connecticut |
| Tracy Carter | Northeastern |
| Heather Chenette | Rose-Hulman |
| Matthew Cooper | North Carolina State |
| Kevin Dahm | Rowan |
| Michael Elsass | Dayton |
| Joshua Enszer | University of Delaware |
| Laura Ford | Tulsa |
| Kevin Hadley | Arizona State University |
| Mechteld Hillsley | Penn State |
| Joseph Holles | University of Wyoming |
| Julie Jessop | Mississippi State University |
| Jason Keith | Mississippi State University |
| Eugene Kim | Washington University in St. Louis |
| Daniel Knight | University of California, Irvine |
| Monica Lamm | Iowa State University |
| Lucas Landherr | Northeastern University |
| Randy Lewis | Brigham Young University |
| Matt Liberatore | University of Toledo |
| Andy Maxson | Ohio State |
| Adam Melvin | Louisiana State University |
| Elif Miskioglu | Bucknell University |
| Greg Neumann | Rose-Hulman |
| Christi Patton Luks | Missouri S & T |
| Reginald Rogers | Rochester Institute of Technology |
| Joe Shaeiwitz | Auburn |
| Trent Silbaugh | Washington University in St. Louis |
| David Silverstein | Kentucky |
| Marissa Tousley | Rose-Hulman |
| Bernard Van Wie | Washington State |
| Margot Vigeant | Bucknell |
| Troy Vogel | Notre Dame |
| Jason White | UC Davis |

1. We circulated a sign-up sheet due to the full meeting (see names listed above).

- a. Promotions, New Positions, Passing of Members
 - Joshua Enszer was promoted to Associate Teaching Professor
 - Kevin Hadley moved to a Lecturer Position at Arizona State University
 - Reg Rogers promoted to tenured Associate Professor
 - Julie Jessop promoted to Professor and Associate Chair as part of her move to Mississippi State University
2. Minutes from the last Business Meeting (June 27th, 2017 in Columbus, OH) were approved as submitted.
3. Ongoing Business
 - a. Election Results
 - Matthew Cooper was elected as incoming Division Chair
 - Janie Brennan was elected as incoming Director (2 year term)
 - b. Finances (Cheryl Bodnar) – a financial report is attached as Appendix 1.
 - ASEE has now been able to complete their audits and all financial records are up to date and correspond with division records
 - There are still some adjustments listed on this treasurer's report due to the last round of audits that were performed since the 2017 June meeting
 - We have received sponsorships from U.S. Didactic as well as CACHE to help support division activities and awards
 - The BASS Admin Fee is equivalent to 30% of all net income that comes into the BASS (Banking and Account Service System) accounts. ASEE has been performing a verification study to determine how much employee time and effort goes into maintaining these accounts and after collection of six months worth of data it appears that the 30% level seems appropriate
 - We are currently spending out slightly more than we are bringing in to the division but this is okay since ASEE would like us to spend down the BASS accounts where possible. These expenditures should be done on items that are of meaning to the division but could include food purchases for business or executive meetings, social events, etc.
 - The dues on the ASEE website have been updated as of November. All members are now being charged \$7 for division membership
 - Our operating account funds align with how many individual members we have in the division. This has been going down in recent years but we could obtain more funds if we increase our overall membership.
 - c. Membership (Troy Vogel)
 - We managed to get 6 new members this year
 - All of the ASEE divisions are seeing big declines in memberships
 - 395 professional members, 25 students, 3 K-12 educators, 53 other members for a total of 476 members
 - We are #4 in terms of membership after electrical, mechanical, civil engineering
 - We should try to leverage the Dean and Chairs program that allows a new ASEE member to have two years of membership paid for if the Dean is agreeable. The Dean pays for the first year and ASEE pays for the second year. Ask your ASEE campus representative about this opportunity for more details
 - Additional membership notes are outlined in the memo in Appendix 2
 - d. PIC I Update (Agnieszka Miguel)
 - Provided info to officers that could be shared more broadly with division members
 - Conference code of conduct is a key point of discussion at the PIC level
 - Don't know what should be done if someone violates the code that has been put in place
 - Ethics task force will be looking into this and other issues such as plagiarism this year
 - Finances are in good shape for ASEE overall. ASEE was able to put \$350,000 in reserves in 2017 and it appears that we are on track for the same type of savings for 2018 as well. ASEE's credit rating has also improved

- ASEE is encouraging the divisions to have a plan about what they will do with their BASS accounts
 - Updates to bylaws should be made every 10 years
 - PIC I is trying to update their bylaws and consolidate them
 - 3,800 attendees at this year's ASEE meeting in comparison to 4,026 last year. ASEE is losing members at a rate of about 400 individuals per year. There is another task force that is being assembled to look at this issue. One area of potential interest is to determine how to attract two year colleges to become members
 - Feedback provided by ChE Division members:
 - Individuals running workshops wanted to know who had registered for their workshop (not just the number of individuals)
 - It would be beneficial to allow individuals to do late withdrawals
 - Is it possible for Works in Progress to only require an abstract rather than a full paper
 - It was very helpful to have the childcare option available. Advertising this earlier in the conference registration process may encourage better attendance at the conference
 - Online session locator (monolith) isn't the easiest system to work with for identifying papers. It would also be helpful to have an app for the conference rather than just an online system
 - It would also be helpful to know the timing of the talks between the different divisions so individuals can more easily move from one division to another.
- e. 2018 Annual Meeting (Daniel Anastasio)
- Total of 49 abstracts were submitted to the conference this year. Out of these 1 abstract was rejected, 9 abstracts were withdrawn and five papers missed the draft deadline. This led to a total of 34 papers finalized for the program schedule
 - The 34 papers in the program are broken down as follows: 20 technical talks, 7 Work in Progress Postcard talks, 2 posters and 5 Work in Progress Posters.
 - There is also a panel happening this year between Matt Cooper and Milo Koretsky discussing adding rigor to your engineering education studies
 - At the time of the banquet all 40 tickets were sold (5 were sold the day of the banquet). Important note is that the awards banquet is for everyone not just those individuals that may have won an award
 - Daniel thanked the authors and reviewers for their time invested in the paper process
 - Any additional comments on how to improve the programming can be provided to Daniel who will communicate it to the new programming chair
- f. Awards (Margot Vigeant)
- Two mentoring awards, the best poster award, the best paper award for the ASEE 2017 conference and Chemical Engineering Education journal along with the CACHE award were presented this year (see Appendix 3)
 - The Distinguished Lectureship award has veered in recent years away from someone that is active in ASEE to more of an individual that just shows up, gives their lecture, and then leaves. For this reason, the awards committee proposed the combination of the Distinguished Lectureship award with the Lifetime Achievement Award to allow for an individual to be selected that has a strong vested interest in Chemical Engineering Education. Margot and Milo will put together a proposal and then circulate it for votes.
 - Division members were encouraged to nominate themselves or someone they know for the division awards
 - Deadline for all mentorship awards is in October (both require an abstract submission) but the other division awards have deadlines in January
- g. Summer School 2017 (David Silverstein)
- Had 174 participants with 227 attendees in total
 - Started off with \$132,000 as an opening balance
 - Brought in an additional approximately \$200,000 from industrial partners and NSF
 - Expenses were \$211,517
 - Net Loss on the summer school ended up being \$13,518. Over spent intentionally, particularly on food, to draw down the balances

- Current balance of the account is \$118,366
- David thanked key members of the summer school committee including Jason Keith for his work on sponsorships, Lisa Bullard for her assistance with local arrangements, Kevin Dahm for his assistance with programming, and Matt Cooper for his assistance with social events. Troy Vogel was also an asset in arranging the industry day that was held in conjunction with the summer school
- Performed a lot of assessment including a survey that was recently sent out this month to get feedback. Based on the assessment performed all of the respondents mentioned that the summer school had some impact, most of it significant on their teaching. A lot of individuals mentioned that the summer school benefited their research and professional service as well.
- Word cloud was generated that summarized the open ended feedback received. Good words came out of this including active learning, techniques, etc.

4. New Business

a. Summer School 2021 (Margot Vigeant, 2021 Summer School Chair)

- The committee for the summer school has been formed and consists of:
 - Milo Koretsky
 - Laura Ford
 - Matt Liberatore
 - Taryn Bayles
 - Daniel Lepek
 - Daniel Burkey
 - Margot Vigeant (chair)
- Call for proposals for a location to host the summer school has gone out to the chairs. Will also send this proposal out to all ChE Division members (<https://goo.gl/forms/kfSq1DPSXjYa5pBs1>). Goal is to have a location selected prior to the AIChE meeting this fall
- There is no need to have your chair's approval for hosting the summer school just need the space availability
- Had input from prior participants that five years between summer schools is a little too long given people's tenure timelines
- Have created a timeline for what is necessary to be able to get the summer school set up within the 4 year timeframe
- More information can be found at: chesummerschool.org
- Lisa Bullard mentioned that she would be a resource for anyone that is interested in hosting the local arrangements

b. 2019 conference in Tampa, FL (Troy Vogel)

- Programming Chair 2019: volunteer opening
 - Dan A. mentioned that he would be willing to help the new programming chair for Tampa
 - Note: At the time of the Business Meeting Reg Rogers agreed to serve in this capacity for the division
 - Also need to arrange for a programming chair and local events coordinator for the 2020 meeting in Montreal, Quebec, Canada
- Secretary/Treasurer 2019-2021 (elected position; volunteer opening)

6. Brainstorming about ASEE ChED

- There were four topical focuses for the brainstorming session with comments in each:
 - Determine one session theme you would like to see solicited
 - Session on Unit Operations/Senior Design (focus on process safety)
 - More collaboration between ChED and MIND

- UG/Grad Research Session (could include UGs presenting technical aspects and learning, UGs present technical topics, faculty speak about experiences managing/advising UGs in the lab)
 - Assessment workshop or talks – going beyond self-assessment of learning
 - Hands on learning
 - Interdisciplinary Teaching (MechE/Civil/Etc.) with ChemE
 - Question to ponder: Why are most popular textbooks just revised versions of 25-40 year old texts?
 - Rotating topic workshop on best practices in teaching Chemical Engineering classes. (If we use authors, must invite competing book authors) – maybe a panel of authors plus other teachers, maybe related to the AIChE survey, could lead to CEE papers
- ii. Determine an approach to grow membership in ChED
- How are ASEE campus reps used? (can they do graduate student outreach?) More proactively?
 - Outreach at AIChE – future faculty poster session/meet the faculty candidates! – provide sponsorship or awards to attend ASEE?
 - Develop a member/get a member campaign
 - Articulate the value of membership (networking)
 - More AIChE/ASEE interaction? (have a “best of” invitation only session in the opposite?)
- iii. Determine an approach to encourage “non-active” members to be more active
- Encourage more collaborators between universities (possibly a session geared toward inter-university collaboration)
 - Solicit nominations for positions
 - Group teambuilding exercises to help (more social events) encourage more people to volunteer
 - Share membership between AIChE Ed Div?
 - Peer mentor program?
 - Decrease the requirement to 1 page for Work in Progress
 - Where is the ‘non-activity’? – run the numbers and get the data
- iv. Determine an approach to make divisions more interconnected and collaborative
- Use the PIC Chairs as a mechanism for more interconnectedness? They have access to all of the papers and topics – PIC Chairs have sessions where anyone can put a paper into? This would be based on a topic area.
 - PIC call for papers as opposed to individual divisions?
 - Workshops and panels across divisions
 - Division Programming chairs look at each other’s call for papers and see if there are themes for a session across divisions
 - Sessions across divisions (eg. design projects with students in multiple disciplines)
 - How much can program chairs connect with one another?
 - Actively look for more co-sponsoring (diversity/global outreach session could have been co-sponsored)
 - Faculty development/eng. education research session (there were many non-ChE’s at the education research panel)
 - Session on a topic rather than a discipline (flipped classrooms, teamwork, ethics, trust...)
 - Focus on common courses among disciplines (fluids, thermodynamics, etc.)
7. Troy passed the “golden wrench” to Josh Enszer – incoming Division Chair

Appendix 1 – Treasurer’s Report

American Society for Engineering Education Chemical Engineering Division
Treasurer's Report – June 2018

BASS Account total reported June 16, 2017 **\$17,016.10**

Credits

| | |
|---|------------|
| Interest (FY17 Oct. 2016 – Sept. 2017) | \$10.86 |
| Interest (FY18 Oct. 2017 – Dec. 2017) | \$1.11 |
| Dues (January 2017 through September 2017) | \$1,070.00 |
| Dues (October 2017 – March 2018) | \$1,441.00 |
| 2016 ASEE Banquet Revenue Correction | \$1,129.95 |
| 2017 Banquet Revenue | \$2,280.00 |
| Sponsorships (U.S. Didactic Division Donation, June 2017) | \$1,000.00 |
| Sponsorships (CACHE, May 2018) | \$1,200.00 |

\$8,132.92

Debits

| | |
|--|------------|
| 2017 Lectureship Travel | \$205.44 |
| BASS Admin Fee Correction (June 2016 – Sept. 2016) | \$460.95 |
| BASS Admin Fee (FY 17 Jan. 2017 – Sept. 2017) | \$574.23 |
| BASS Admin Fee (FY 18 Oct. 2017 – Mar. 2018) | \$432.30 |
| 2017 Awards Banquet Reimbursement | \$2,435.90 |
| 2018 Awards – Fahien, Corcoran, CACHE, Portion of Future Faculty | \$4,430.00 |
| Reimbursement of Banquet Ticket for Corcoran Award Winner | \$60.00 |

\$8,598.82

Total BASS Account (June 13, 2018) **\$16,550.20**

Operating Account total reported June 16, 2017 **\$0.00**

Credits

| | |
|----------------------|----------|
| 2017/2018 Allocation | \$470.00 |
|----------------------|----------|

Debits

| | |
|--|----------|
| Future Faculty Grant (Portion of grant; \$900 total) | \$470.00 |
|--|----------|

\$0.00

Total Operating Account (June 13, 2018) **\$ 0.00**

Appendix 2 – Membership Report
American Society for Engineering Education

COMMUNICATION

Date: June 20, 2018

To: Executive Committee

From: Anju R Gupta, Membership Chair (2016- present)

Subject: CHE DIVISION MEMBERSHIP REPORT

RECOMMENDATION

Receive and file.

REPORT

I. CHED MEMBERS

Following data is from the ASEE CHE Division membership directory current and recent rosters (June 20, 6:15 pm).

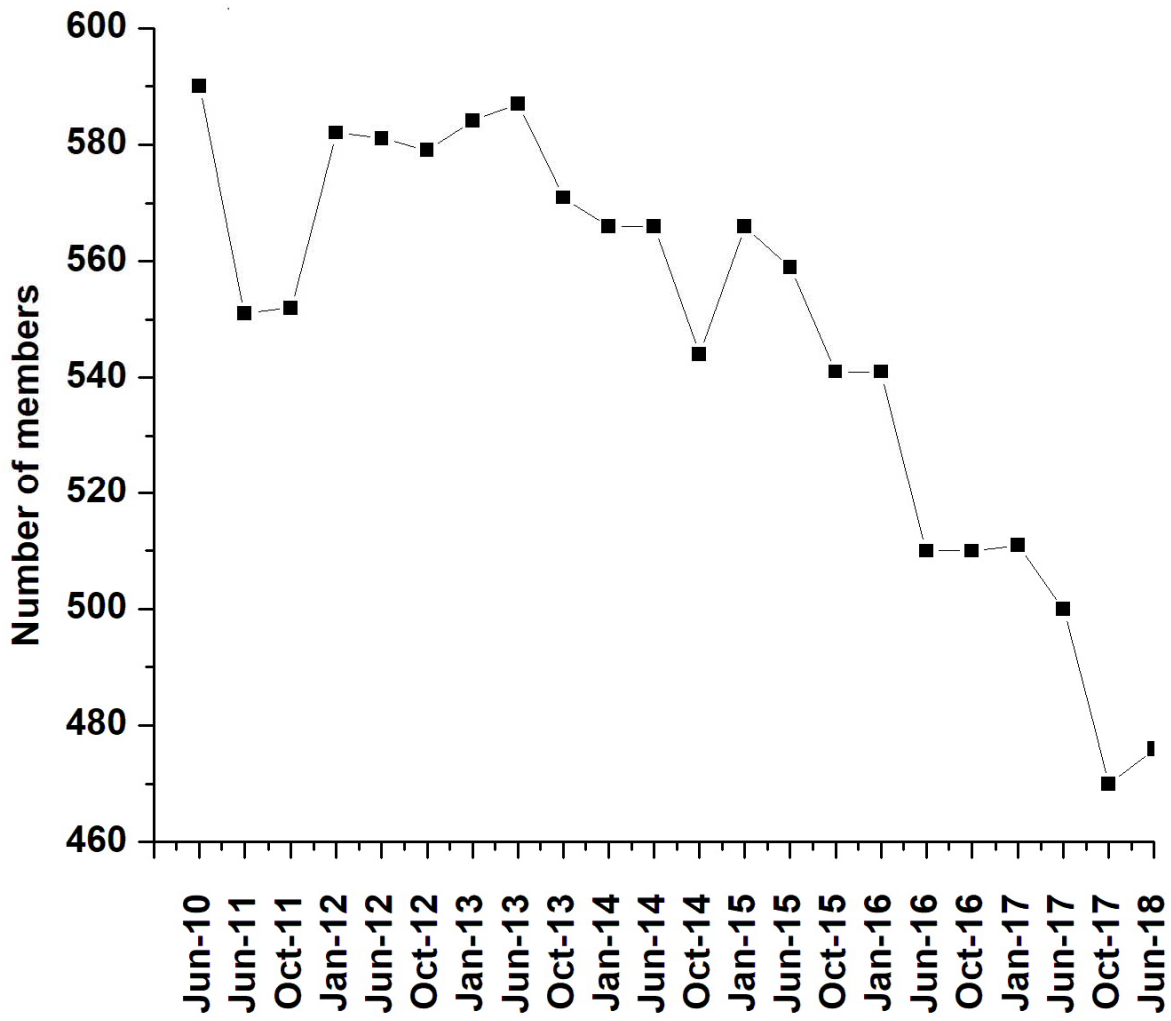
Total members (Oct 2017) - 470

Total members (June 2018) - 476

The breakdown of the different types of members from the CHED current roster are as follows:

| <u>Member types</u> | <u>Jun 2018</u> |
|---------------------|-----------------|
| Professional | 395 |
| Student | 25 |
| K-12 educator | 3 |
| Others | 53 |
| Total | 476 |

CHE Division members by the numbers (Jun 2010- Jun 2018)



II. COMPARISON WITH OTHER DIVISIONS

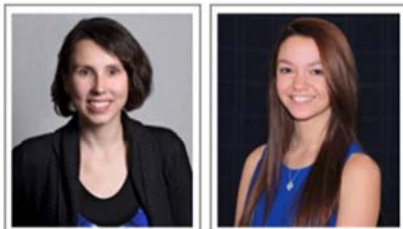
Based on information received from ASEE staff and ASEE Annual PIC meeting June 2018-

| DIVISION | MEMBERS |
|--|----------------|
| Aerospace Engineering (PIC I) | 297 |
| Architectural Engineering (PIC I) | 237 |
| Biological and Agricultural Engineering (PIC I) | 129 |
| Biomedical Engineering (PIC II) | 491 |
| Chemical Engineering (PIC I) | 476 |
| Civil Engineering (PIC I) | 540 |
| College Industry Partnerships (PIC V) | 523 |
| Community Engagement (PIC III) | 819 |
| Computers in Education (PIC IV) | 408 |
| Computing & Information Technology (PIC III) | 874 |
| Construction Engineering (PIC I) | 124 |
| Continuing Professional Development (PIC V) | 160 |
| Cooperative & Experiential Education (PIC V) | 220 |
| Design in Engineering Education (PIC II) | 893 |
| Educational Research and Methods (PIC IV) | 1452 |
| Electrical and Computer Engineering (PIC I) | 758 |
| Energy Conversion and Conservation (PIC III) | 1150 |
| Engineering and Public Policy (PIC III) | 198 |
| Engineering Design Graphics (PIC III) | 167 |
| Engineering Economy (PIC I) | 110 |
| Engineering Ethics (PIC IV) | 1254 |
| Engineering Leadership Development (PIC II) | 1113 |
| Engineering Libraries (PIC IV) | 213 |
| Engineering Management (PIC I) | 241 |
| Engineering Physics and Physics (PIC III) | 187 |
| Engineering Technology (PIC II) | 464 |
| Entrepreneurship (PIC IV) | 377 |
| Environmental Engineering (PIC II) | 327 |
| Experimentation and Lab.-Oriented Studies (PIC IV) | 312 |
| Faculty Development (PIC IV) | 207 |
| First-Year Programs (PIC III) | 541 |
| Graduate Studies (PIC IV) | 253 |
| Industrial Engineering (PIC I) | 239 |
| Instrumentation (PIC III) | 131 |
| International (PIC IV) | 218 |

| | |
|--|-------|
| Liberal Education/Engineering & Society (PIC III) | 344 |
| Manufacturing (PIC I) | 232 |
| Materials Engineering (PIC II) | 813 |
| Mathematics (PIC III)s | 176 |
| Mechanical Engineering (PIC I) | 821 |
| Mechanics (PIC III) | 303 |
| Military and Veterans (PIC II) | 250 |
| Minorities in Engineering (PIC IV) | 547 |
| Multidisciplinary Engineering (PIC II) | 1389 |
| New Engineering Educators (PIC IV) | 278 |
| Nuclear and Radiological Engineering (PIC II) | 78 |
| Ocean and Marine Engineering (PIC II) | 206 |
| Pre-College Engineering Education (PIC IV) | 592 |
| Software Engineering (PIC II) | 305 |
| Student (PIC IV) | 695 |
| Systems Engineering (PIC II) | 256 |
| Tech. & Engr. Literacy/Philosophy of Engr. (PIC III) | 625 |
| Two-Year College (PIC III) | 389 |
| Women in Engineering (PIC IV) | 872 |
| Total | 24530 |

Appendix 3 – Awards Brochure

Joseph J. Martin Award



Cheryl Bodnar & Abigail Kulhanek

for “*Chemical engineering student perceptions of communication development from participation in game-based activities*”

Professor of Experiential
Engineering Education, Rowan
University / DuPont

This award recognizes the most outstanding
Chemical Engineering Division paper
presented at the ASEE Annual Conference

Picture credits: Everyone's official
university picture except AK/HG - LinkedIn

ChE Division Young/Future Faculty Travel & Mentoring Grant

Hassan Golpour,
Postdoctoral
Research Scholar,
Chemical
Engineering, NC
State University



ChE Division Engineering Education Mentoring Grant

Monica Lamm,
Associate Professor
of Chemical and
Biological
Engineering, Iowa
State University



Hello! Thanks for reading this far. I
have a secret message, just for you!

Do you have a great colleague? You know
someone who goes above and beyond for the
students, for the profession, or for the world?
Please consider nominating that person for one or
more of these awards. Please visit the division
website for more info:

<https://ched.asee.org/awards/>

ASEE ChED Awards 2018

Recognizing the achievements of our esteemed
colleagues.

Best Poster Award

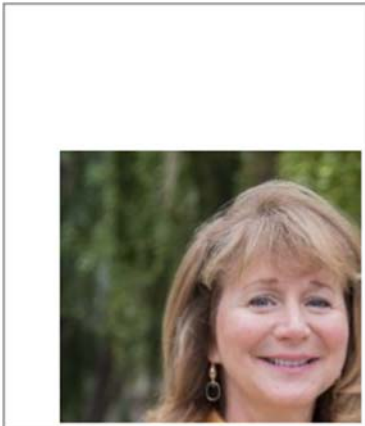


Anthony Butterfield & Kyle Branch

for “*Development and usage of an
online homework system in a
chemical engineering curriculum*”
Assistant Professor (Lecturer) of
Chemical Engineering / Graduate
Student, University of Utah

This award is presented to the author of the
most outstanding poster presented at the ASEE
Annual Conference.

The Thomas and Donna
Edgar CACHE Award for
Excellence in Chemical
Engineering Education



Jennifer Sinclair Curtis,
Distinguished Professor of Chemical
Engineering and Dean of the College
of Engineering, UC Davis

This award, sponsored by the CACHE
Corporation, is presented for significant
contributions in the development of computer
aids for chemical engineering education.

The Ray W. Fahien Award



Jason Bara,
Associate Professor of Chemical
Engineering, University of Alabama

This award is given in honor of Ray Fahien, who
was editor of Chemical Engineering Education
from 1967-1995, and who was effectively the
founding father of the journal, establishing it as a
premier publication vehicle in the field of
chemical engineering education. This award is
given to an education who has shown evidence of
vision and contribution to chemical
engineering education within their first 10 years as
faculty.

The William H. Corcoran
Award



Polly Piergiovanni
for "Students learn without lectures:
Scaffolded problem-based learning in
an applied fluid flow and heat transfer
course"

Professor of Chemical Engineering,
Lafayette College

This award is presented to the author of the
most outstanding article published in Chemical
Engineering Education.