ASEE-SE: A Retrospective

John Brocato, Tyson Hall, Hodge Jenkins, Daniel Kohn, Scott Schultz and Cecelia Wigal

Mississippi State University, Southern Adventist University, Mercer University, University of Memphis, Mercer University and University of Tennessee at Chattanooga

Abstract

Motivated by the desire to further engage and inform the American Society of Engineering Education – Southeastern Section (ASEE-SE) membership, this paper describes the inner workings of ASEE-SE and shares the organization's accomplishments over the last decade.

Specifically, this paper describes the purpose and mission of ASEE-SE and how ASEE-SE fits within the larger ASEE organization. This is followed by the section organizational structure, including a description of the executive committee, its roles, and how that structure changes each year. Also discussed is how the section structure supports the needs and progression of the executive committee. The ASEE-SE annual conference, the section's premier event, is also described, including location, keynote speaker, paper counts, and attendance over the last ten years. This is followed by a description of how money flows into and out of the organization, including an exhibit of this year's financial report. The paper concludes with a self-assessment of the section's strengths and weaknesses.

Keywords

ASEE-SE Section, Annual Conference, Officers, Finances, Mission

Introduction

Motivated by the desire to further engage and inform the American Society of Engineering Education – Southeastern Section (ASEE-SE) membership, this paper describes the inner workings of ASEE-SE and shares the organization's accomplishments over the last decade.

Purpose and Mission

The Southeastern Section of ASEE was formed in 1934. Delegates from the Southeastern United States attending the annual national meeting of the Society for the Promotion of Engineering Education (SPEE, which later became today's ASEE) voted to hold a meeting at Georgia Tech to discuss engineering education problems facing engineering institutions in the Southeast. The initial meeting, held on November 9-10, 1934, was attended by 26 individuals from ten colleges and universities.

Mission Statement

As stated in the Officer's Manual of the ASEE SE Southeastern Section¹, the organization's Core Value (or Mission Statement) is "To promote the betterment of engineering education within the section through collegiality and friendship, while fostering a spirit of mutual enjoyment for all."

In other words, the Southeastern Section serves to improve all aspects of engineering education, through direct contact with and friendship among all members of the section and other participants. This meshes well with ASEE National's Mission: "ASEE advances the development of innovative approaches and solutions to engineering education and excellence in all aspects of engineering education, while continuously improving the member experience."

Geographic Region

The Southeastern Section extends from the Atlantic Ocean westward to the Mississippi River and from Virginia southward including Puerto Rico. The Southeastern Section has grown to more than 2000 members from Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee and Virginia. The Southeastern Section is part of ASEE Zone 2, which consists of the North Central Section, the Illinois Indiana Section, and the Southeastern Section. The ASEE has 12 sections, organized into four Zones.

Members

Membership consists primarily of faculty in engineering, engineering technology, computer science, and related programs. The strength of the section is built on attendance at the annual spring section conference and meeting, while the other key element to the section's success is the structure of section officers. The large number of new section officer positions available and the election process at the conference breakfast meetings encourage new attendees to be involved in the section.

Section involvement is further strengthened by the fall planning meetings, which are typically held in October over two days (Thursday afternoon through Friday morning). All officers are invited and encouraged to attend the planning meetings, which actually consist of three separate meetings: the Conference Site Planning Meeting, the Fall Executive Board Meeting, and the Conference Technical Program Planning Meeting. The Executive Board also meets on the Sunday of the annual spring section conference, before the welcome reception.

Alignment with ASEE National

As stated above, ASEE-SE is one of twelve geographically-grouped sections divided into four nationally-distributed zones (three sections per zone – see Figure 1 below). When new members join ASEE at the national level, they also become members of their corresponding geographic section and zone at no additional cost. According to ASEE², the sections and their activities "allow individuals to participate in professional activities at the local level, and offer a chance to form regional networks of educators with common interests and goals." ASEE Zones, meanwhile, "provide a means of direct member representation to the Board of Directors" via Zone Chairs, who are nominated and elected every two years by members of their respective sections. Elected Zone Chairs represent all the sections within their zone, traveling to the sections' meetings and conferences as a means of facilitating communication between members and the ASEE Board. Zone Chairs are also instrumental in coordinating Zone Conferences, which provide a regular opportunity for zone members to network, collaborate, and share ideas with colleagues in other sections.

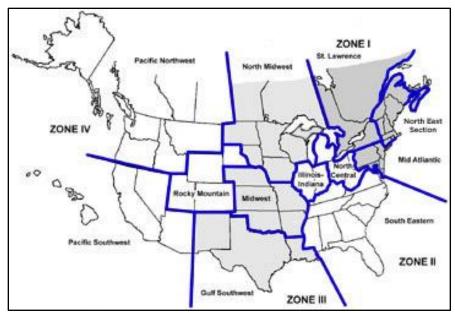


Figure 1. Map of ASEE Sections and Zones (https://www.asee.org/member-resources/sections-and-zones)

While the sections are officially connected to ASEE national in legal and financial ways – e.g., the sections receive \$1 per registered member from national, and national applies a 30% administrative fee on section income – in practice sections function as self-contained, independent entities. For instance, sections have tremendous flexibility in conducting traditional activities such as annual conferences; workshops; effective teaching institutes; faculty and student awards; and regular newsletters. Section conferences in particular can vary widely across the society. Anecdotally, colleagues in other sections report holding one-day annual or even biennial conferences due to relatively low member participation. By contrast, ASEE-SE has held a well-attended annual section conference for nearly thirty consecutive years, the size of which has grown steadily during this time. Interestingly, this large section conference has not discouraged participation in the ASEE national conference: ASEE-SE members consistently comprise the largest percentage of ASEE national attendees among those who specify or can be associated with an ASEE section. To this point, Table 1 below shows ASEE national conference attendance by section 2015-2018. One detail this data makes clear is that ASEE-SE enjoys a significant size advantage over other sections.

A contributing factor that has made ASEE-SE such a robust, active segment of ASEE is the activity of the Campus Representative (called the Campus Rep). Campus Reps serve as liaisons between the society and its member institutions, providing information on society activities to members as well as relaying member questions and concerns to society leadership. ASEE-SE has been fortunate to benefit from excellent and unusually high-performing Campus Reps. This activity is primarily documented through the Campus Rep Activity Report which describes faculty participation at the regional and national level. As Table 2 below shows, ASEE-SE Campus Reps consistently submit among the highest number of Activity Reports nationwide.

Table 1. Attendance by Section – ASEE Annual Conferences 2015-2018*

	AC** Attendees Med			Membe	embership Counts at AC			% of attendance				
Section	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Gulf Southwest	144	243	215	195	985	946	913	880	15%	26%	24%	22%
Illinois-Indiana	206	269	362	242	993	960	929	864	21%	28%	39%	28%
Middle Atlantic	189	278	324	268	1,329	1,289	1237	1109	14%	22%	26%	24%
Midwest	73	97	107	109	590	540	511	484	12%	18%	21%	23%
North Central	188	255	436	255	1,266	1,191	1233	1246	15%	21%	35%	20%
North Midwest	109	151	147	139	666	643	623	572	16%	23%	24%	24%
Northeast	118	160	148	131	844	788	750	686	14%	20%	20%	19%
Pacific Northwest	144	139	95	132	708	688	640	596	20%	20%	15%	22%
Pacific Southwest	159	232	205	244	1,010	992	932	877	16%	23%	22%	28%
Rocky Mountain	80	107	112	157	443	424	405	425	18%	25%	28%	37%
Southeastern	339	543	545	504	2,277	2,141	2057	2094	15%	25%	26%	24%
St. Lawrence	56	84	62	67	540	520	462	446	10%	16%	13%	15%
(blank)	1,476	985	523	673								
Grand Total	3,281	3,543	3281				10692	10279				

^{*}Data provided by ASEE HQ **"AC" = "Annual Conference"

Table 2. ASEE Campus Representative Report Data by Section*

Section	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gulf Southwest	3	4	6	7	4	2	2	2	7	3
Illinois-Indiana	5	4	5	9	1	3	6	7	6	2
Middle Atlantic	6	6	10	9	6	7	4	6	11	9
Midwest	9	10	9	8	11	8	7	8	5	3
North Central	3	12	11	14	15	8	6	15	16	12
North Midwest	9	4	8	10	4	4	3	3	9	7
Northeast	3	2	7	8	1	2	2	6	10	3
Pacific Northwest	3	5	10	11	6	8	2	8	9	3
Pacific Southwest	5	4	7	11	1	1	3	6	7	4
Rocky Mountain	2	1	3	5	5	1	0	0	3	3
Southeastern	8	11	15	19	8	4	4	15	16	22
St. Lawrence	5	5	3	6	1	2	1	2	4	1
N/A (International)	0	0	0	0	0	0	0	0	1	1

^{*}Data provided by ASEE HQ

Officer Structure

The ASEE-SE officer structure is designed to encourage broad participation and ownership in the Section while also facilitating succession planning and continuity in Section governance. The current ASEE-SE Section Officer's Manual¹ and Section Bylaws³ denote responsibilities for over 60 elected and appointed officers.

Figure 2 shows ASEE-SE organized into three units and 15 divisions. Three officers serve each division and unit, and unit chairs also serve as Section vice presidents. In addition to the vice presidents, Section officers include five elected officers and five appointed officers.

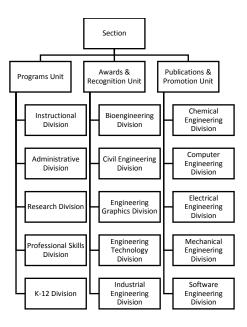


Figure 2. ASEE-SE Officer Structure

Divisions

The 15 divisions each annually elect three officers—a chair, vice-chair, and secretary:

- 1. Division chairs are responsible for working with the Technical Program Chair to coordinate the peer-review process for papers submitted to the division. Division chairs are also expected to promote Section activities and encourage collegiality and communication between members of the division.
- 2. Division vice-chairs are expected to fulfill the chair's duties if the chair is unable to do so. They are also expected to participate as a paper reviewer for the division and promote Section activities to their colleagues.
- 3. Division secretaries are expected to record minutes from the division's annual meeting. They are also expected to participate as a paper reviewer for the division.

During the division's annual-conference breakfast meeting, the current secretary typically advances to the vice-chair position, the current vice-chair advances to the chair position for the following year, and elections are held for the secretary and unfilled positions. This division structure allows for 45 volunteer officers to each participate in a gradually increasing level of commitment and responsibility over a three-year period. The broad-based participation engendered by this division structure typifies the Section's grassroots nature and is one of the organization's significant strengths.

Units

The fifteen divisions are organized into three units – Programs, Awards and Recognition, and Publications and Promotions. As delineated in Table 3, each unit is responsible for fulfilling specific section-wide responsibilities. Unit duties are accomplished by three elected officers –

chair, vice-chair, and secretary – along with the support of the appointed Section officers listed in Table 3. The units hold elections during the annual conference breakfast, electing a secretary and any unfilled unit positions and advancing the current secretary and vice-chair to the next level. Section members are eligible to serve as unit officers once they have successfully completed a term as a division chair or a relevant appointed Section officer.

Table 3. Officers and I	Responsibilities of the Section's Three Units	

Unit Name	Officers	Responsibilities
	(ex officio roles are denoted in parentheses)	
Programs	Elected Officers: Chair (Section Vice President) Vice-Chair (Technical Program Chair) Secretary Supporting Appointed Section Officers: Paper Management Website Coord.	 Coordinating the full technical program for the annual conference Managing the paper peer-review process Creating the final technical program and schedule
Awards and Recognition	Elected Officers: Chair (Section Vice President) Vice-Chair Secretary	 Creating the Call for Section Awards Coordinate the Award review process Planning and chairing the award banquet ceremony
Publications and Promotion	Elected Officers: Chair (Section Vice President) Vice-Chair Secretary Supporting Appointed Section Officers: Proceedings Editor Newsletter Editor Website Coordinator	 Recruiting new host sites for future conferences Promoting the annual conference and Section in general (including through the website, conference proceedings, newsletter and campus reps) Formulating Section positions on relevant issues

The three unit chairs also serve as vice presidents of the Section and are members of the Section's Executive Board. This intentional merging of unit and section responsibilities increases continuity within Section governance and provides valuable mentorship and succession planning opportunities for future leadership roles within the Section.

Section

Section officers oversee all of the Section's activities. The highest ranking officer in the Section, the Section president is nominated by the Nominating Committee and elected by the Section membership to the president-elect position a full year prior to their term as president. Likewise, the president assumes the position of immediate past president the year following their presidency. All three of these officers – president-elect, president, and immediate past president – serve on the Section's Executive Board. To be eligible for nomination, the Section president must have previously served as a Unit chair (Section vice president), Section treasurer, Section secretary, or Section campus rep coordinator.

The final two elected Section officers are the secretary and treasurer. These officers are nominated and elected to three-year terms by the Section membership, and both can be elected to a second consecutive term before taking a required hiatus.

In addition to the elected officers, the Executive Board appoints five officers to fulfill specific duties: proceedings editor, newsletter editor, website coordinator, and paper management website coordinator. These non-voting appointed positions vary in term from three years to undefined. Traditionally, appointed officers have served long terms and have been consistent, active participants in the Section meetings.

Section Finances

ASEE-SE continues to be in excellent financial shape. The Section has electronic financial records dating back to 1997. Over this period of time, through good economic times and bad, the Section accounts have either been stable or increasing.

Income

The Section has three main sources of income: institutional dues, membership dues allocation, and conferences.

- 1. *Institutional dues* Most universities in the section are institutional members of ASEE. Each year, invoices are sent to universities, and included on this invoice is an OPTIONAL \$50 payment to support the region. Years ago, this was a major source of income for the section (at its peak bringing in over \$2,500 per year) but has dwindled down to \$250 or less since 2012. The two factors contributing to this decline are the economic downturn, and more recently, ASEE National's major increase in institutional dues.
- 2. *Membership dues allocation* ASEE-SE receives a portion of ASEE membership dues. This has remained relatively constant over the past three decades, contributing between \$1,500 and \$2,300 per year.
- 3. Section annual conferences The conference host institution is responsible for all financial obligations for the Section annual conference. If a conference produces a profit, it will return that profit to the Section. Conversely if requested, the Section will financially help an institution if the conference generates a loss. Prior to 2004, the Section annual conferences averaged a profit of under \$1,500. Since that time, conference profit has varied widely, from a substantial loss to over \$13,400 profit, with an average profit of \$3,400 per year.

Expenses

Because conference expenses are handled by the host site, the SE Section only incurs three major expenses per year: Fall Executive and Planning Meeting, Awards, and Publications.

- 1. As described above, the Fall Executive and Planning Meetings (held each year in Atlanta) are used to manage Section business leading up to the annual spring conference. Executive board members along with Unit and Division officers are all invited to attend along with the conference host and the Zone 2 Chair. This meeting has typically cost around \$500.
- 2. The SE Section recognizes service, excellence in teaching, and outstanding education research with awards. Each year, the Section spends approximately \$2,000 on this

recognition of outstanding membership. At the fall 2018 Executive meeting, Section leadership decided to increase the cash awards, so this expense will double for the 2019 conference.

3. Publications, including the conference proceedings and Section newsletter, were formerly the largest expense (roughly \$2,000 per year), but the change to electronic versions has decreased these significantly. Since 2013, the Section has been using OpenConfTM software for the paper review process and conference proceedings, at approximately \$500 per year.

The Annual Conference

The primary activity of ASEE-SE is the annual Section conference. Considerable time and effort is required for this activity, such as: recruiting host sites, paper calls, reviewing papers, designing the technical program and host program, recruiting speakers, etc. Over the last 12 years, the ASEE-SE Conference has been hosted by 11 different institutions and held in eight states, as shown in Table 4 below. The Section was also instrumental in the planning and preparation for the Zone II Conference held in San Juan, Puerto Rico in spring 2017.

Table 4. ASEE-SE Conference Site and Participation

		ASEE-SE				
Year	Host School	President	Presentations	Posters	Attendees	Workshops
2008	University of Memphis	Cecelia Wigal	107	30	170	1
2009	Southern Polytechnic State Univ.	Barbara Bernal	102	17	150	5
2010	Virginia Tech	Keith Plemmons	eith Plemmons 95		131	2
2011	The Citadel	Claire McCullough	77	22	134	3
2012	Mississippi State University	Brent Jenkins	97	20	170	4
2013	Tennessee Technological Univ.	Tyson Hall	65	31	140	8
2014	Mercer University	Priscilla Hill	95	46	198	6
2015	University of Florida	Tulio Sulbaran	111	85	119	5
2016	University of Alabama	Scott Schultz	75	16	109	0
2017	Zone 2 - San Juan	John Brocato	156	61	202	12
2018	Embry-Riddle Aeronautical Univ.	Hodge Jenkins	98	41	207	9
2019	North Carolina state University	Sally Pardue	TBD	TBD	TBD	TBD

The ASEE-SE Conference offers faculty and graduate students opportunities to publish and present full papers as well as work-in-progress papers (since 2017). Prior to spring 2017, participants could also opt for a presentation-only submission. The Section has averaged 92 paper presentations over the last 10 Section conferences. Participants may also propose to offer workshops that occur the first day of the conference, prior to the evening welcome reception.

Since spring 2005, the Section also offers undergraduate students an opportunity to present their research and team design project results in a poster session. The students, who have a reduced rate to attend the conference, compete for awards in four categories: First/Second Year Design Team, Junior/Senior Design Team, Individual Research, and Best Overall. The Section has

averaged 32 student posters since the spring 2008 conference. Over this same period, the Section has averaged an attendance of 153 participants (including full-paying attendees and students), while the most recent conference (2018) had 207 attendees.

One conference tradition is to present the Section awards during the Monday-evening banquet. Traditional awards include Outstanding, Mid-career, and New Teacher Awards, New Faculty Research Awards, and the Campus Representative Award. The Section also celebrates an outstanding instructional paper selected for the conference from a nomination of previously published papers. The author(s) of this paper presents the work during the primary conference luncheon program. A final award is the Tilmans-Dion Service Award, named for two individuals who contributed significantly to the Section's growth, and is presented to an individual who has shown outstanding service to the Section.

Another feature of the conference is opening it with a featured speaker, chosen and invited by the host site. Table 5 summarizes the featured speakers and conference themes since spring 2008, excluding 2017's Zone II Conference.

Table 5. Conference Theme and Feature Speaker

		Conference Featured Speaker					
Year	Conference Theme	Name Title		Organization			
2008	Building Bridges: Making the Connections that Facilitate Engineering Education	James M. Phillips	Managing Director	Pinnacle Investments			
2009	Preparing the Engineers and Technologists of Tomorrow	George Blanks	Executive Director, Director	BEST, K-12 Engineering Outreach Auburn University			
2010	The Engineering Educator of 2016	Dennis Hong	Director	Robotics and Mechanisms Laboratory, Virginia Tech			
2011	Creating the Academic Culture to Educate Engineering Leaders	Dr. J. P. Mohsen	Immediate Past President	ASEE National			
2012	The Global Reach of Engineering	Dr. Howard G. Adams	Author	"Get up with Something on your Mind!"			
2013	Efficient and Effective Engineering Education	Dr. Stacy Klein-Gardner	Director	Center for STEM Education at Harpeth Hall School			
2014	Preparing Engineers for the Grand Challenges of the Future	Dr. Craig McMahan	University Minister and Dean of the Chapel	Mercer University			
2015	Preparing Engineers for the Grand Challenges of the Future	Dr. Ken Galloway	Immediate Past President	ASEE National			
2016	Engineering for Sustainability	Dr. Sarah Rajala	Former Past President	ASEE National			
2018	Educating the Engineer of the Future	Dr. Donna Riley	Kamyar Haghighi Head	School of Engr Education Purdue University			
2019	Educating Tomorrow's Engineering Entrepreneur	TBD	TBD	TBD			

References

- 1. American Society for Engineering Education Southeastern Section, *ASEE SE Section Officer's Manual*, ASEE-SE, http://www.asee-se.org/, March 2017, Accessed Nov. 2018.
- 2. https://www.asee.org/member-resources/sections-and-zones
- 3. American Society for Engineering Education Southeastern Section, *Bylaws of the Southeastern Section*, ASEE-SE, http://www.asee-se.org/, Amended April 14, 2015, Accessed Nov. 2018.

Biographies

John Brocato is the coordinator of and an instructor in the Shackouls Technical Communication Program in the James Worth Bagley College of Engineering at Mississippi State University. He teaches engineering communication to both undergraduate and graduate students and also coordinates writing-to-learn activities and writing-/presenting-related workshops throughout all of the Bagley College's departments. John has published on engineering-communication pedagogy at ASEE conferences as well as those of the IEEE Professional Communication Society and the University Council for Educational Administration for over 15 years. He has held multiple ASEE leadership roles at the national and section levels, including Chair of the Liberal Education/Engineering and Society Division and President of the Southeastern Section. He currently serves as ASEE's National Campus Representative and as the Southeastern Section's Proceedings Editor, and he is Mississippi State's longtime Campus Representative, a service for which he has won numerous ASEE awards. John was inducted into the Bagley College's Academy of Distinguished Teachers in 2011 and became an ASEE Fellow in 2018.

Tyson Hall is a Professor in the School of Computing at Southern Adventist University. Since joining Southern's faculty, Hall has taken an active role in curriculum development, ABET and SACSCOC accreditation activities, and faculty governance in addition to regular teaching responsibilities. During his first semester as a faculty member, Hall attended his first ASEE-SE conference in 2005. In true ASEE-SE fashion, he was encouraged to become a division secretary at a morning breakfast meeting and has been volunteering with the organization ever since. Hall has served as an ASEE-SE division officer in multiple divisions; a unit officer in the Awards and Recognition and Programs units; Section Vice President for Awards and Recognition; Technical Program Chair; and Section President. He continues to serve the section as the paper management website coordinator.

Hodge E. Jenkins is the Chair and Associate Professor of Mechanical Engineering in the Department of Mechanical Engineering at Mercer University in Macon, Georgia. Prior to coming to Mercer in 2002, Dr. Jenkins was engaged in optical fiber development with Bell Laboratories of Lucent Technologies. He is a registered professional engineer with over 35 years of design and development experience in high-precision machines, dynamic structural analysis, process automation, and control. Dr. Jenkins holds a Ph.D. in Mechanical Engineering from Georgia Institute of Technology in (1996), as well as BSME (1981) and MSME (1985) degrees from the University of Pittsburgh. Dr. Jenkins is also a past president of the ASEE-SE Section.

Daniel Kohn is an Associate Professor of Engineering Technology at the University of Memphis. He has been Treasurer of the ASEE-SE since 2013 and has been active in the SE Section since beginning his teaching career in 2001. Before 2001, he worked in industry in the area of computer control and measurement systems for thirteen years.

Scott R. Schultz is the Associate Dean and a Professor of Industrial and Systems Engineering at Mercer University in Macon, Georgia. He also consults at the Mercer Engineering Research Center in Warner Robins, Georgia. He comes from an industrial background with thirteen years of experience with Ford Motor Co. in Dearborn, MI and Windsor, Ontario and two years of experience at the North Carolina State University Furniture Manufacturing and Management Center. Ten of his years at Ford were as an information technology manager in areas of

development, installation, and support. His primary research and teaching interests are in scheduling, heuristics, and process modeling. He is a past president of the ASEE-SE section.

Cecelia M. Wigal is a Professor in the College of Engineering and Computer Science at the University of Tennessee at Chattanooga. She received her Ph.D. from Northwestern University (1998), MSEE from Illinois Institute of Technology (1991), and BSEE from Ohio Northern University (1985). Dr. Wigal teaches freshmen and upper level interdisciplinary design courses and upper level industrial engineering courses. Her primary engagement activity is improving the lives of those with physical and mental disabilities. Her primary areas of research include complex system analysis and quality process analysis with respect to nontraditional applications such as service systems. Dr. Wigal is also interested in engineering education reform to address present and future student and national and international needs. Dr. Wigal is a member of ASEE (American Society for Engineering Education) where she has served in various officer positions for the Southeast Section including President, INFORMS (Institute for Operations Research and the Management Sciences), and AAUW (American Association of University Women). Dr. Wigal is an ABET Program Evaluator for General Engineering.