

Southeastern Michigan Section



<http://sems.asme.org>



Section Newsletter, November 2004



2004-05 SEMS Officer Team

Chair – Executive Committee

Kent Alverson 248-506-7125 kwa@comcast.net

Vice Chair – Membership / Outreach Committee

Hastings Wyman hastingsiii@comcast.net

Treasurer – Industry Committee

Tom Libertiny 248-877-2535 libertinyt@asme.org

Secretary – PR & Marketing Committee

Rob Iera iera@psualum.com

Volunteer for ASME SEMS!

The Southeastern Michigan Section Officer Team is actively searching for Section members to volunteer with the many exciting events planned for 2004 – 2005. We need your help to plan, organize, and promote these events and make them all a success. Contact any of the officers for more details.

November Event

Fuel Cells

ASME Southeastern Michigan Section is proud to present our guest speaker Dr. Peter Faguy, who will give a presentation on Fuel Cells: Manufacturing, Cost, Performance and the current state of the art of fuel cell technology.

Dr. Faguy earned his PhD. in electro-chemistry and has served in both industry as a research director and in academia as a professor. He is currently teaching at Wayne State University and is President of his company "Advanced Materials, Measurements and Devices"

When:

Tuesday, November 30, 2004
6:00pm

Location:

Lawrence Tech University
President's Conference Center
21000 West 10 Mile Rd
Southfield, Michigan 48075
<http://www.ltu.edu/futurestudents/directions.asp>

Next Event

Annual Recognition Banquet

Coming Soon!

Register now for the Miniaturization in Biomedicine Impact Forum!



If you are an engineer, or involved in Business Development from biotech and biomedical device companies, a student, or a professional interested in the development of Nanotechnology, then this forum is for you!

The Miniaturization in Biomedicine Impact Forum will take place from April 7-8, 2005 in Irvine, CA at the Hilton Irvine/Orange County Airport

Learn how biotechnology and biomedical device sectors can benefit from Nanotechnology. Explore solutions that can help transform healthcare.

For more information, visit

<http://www.asmeconferences.org/nanobio05/index.cfm>

e-Newsletter

Still receiving a hardcopy of the ASME SEMS newsletter in the mail? Go to the SEMS website <http://sems.asme.org> to read the current newsletter electronically! You can also check out past newsletters and learn more about the month's events!

Thank You!

A special thanks to everyone who participated in last month's Halloween Masquerade Ball for Habitat for Humanity-Detroit. Your support is greatly appreciated!

Member **2** Member REFERRAL

Refer a friend or colleague to ASME!

Visit www.asme.org/membershipdrive for complete details.

Calendar of Events for 2004-2005 (Tentative)

November 2004

Fuel Cells Guest Speaker: Dr. Peter Faguy

December 2004

Annual Recognition Banquet

January 2005

Region V Young Engineers Forum

February 2005

National Engineers Week

February 2005

Hands-On Manufacturing Processes
Kettering University (Flint, Michigan)

March 2005

Ferrari Dinner
Cauley Ferrari (West Bloomfield, Michigan)

April 2005

Homeland Security discussion

May 2005

End of Year Manufacturing Tour

June 2005

Track Day
Corvette race cars!

New Benefit for ASME Members!

ASME members can now subscribe to Chemical Engineering Progress (CEP) from AIChE at their member price of \$30 – a savings off the non-member price.

This is a great benefit for mechanical engineers who work with chemical engineers or in an industry where up to date knowledge of chemical engineering is a plus. For information about the contents of Chemical Engineering Progress, please check the AIChE website (www.aiche.org)

To take advantage of this offer, send your check for \$30, made out to AIChE to: John Beck, Manager, Member Records, ASME, Three Park Avenue, New York, NY 10016. Please include your ASME member number in the request. For questions, please contact John Beck at 212-591-8463 or beckj@asme.org

ASME Launches ‘Communities of Practice’

Want to talk to your peers about technical matters, career and personal interests? Do you need communicate with your peers without going to a meeting or even leaving your desk?

Now ASME offers you a new tool to communicate, get the information you need and meet others with similar interests and concerns at the new ASME Communities of Practice site.

On the CoP site, you can join a community, suggest a new community, participate in discussions and polls, and post your own message or request to be notified when messages are posted on the community. Its your choice what communities you participate in, and how you choose to participate.

The Communities of Practice pages also allow you to customize your own personal page to include your communities, your own links and calendar and to access an ASME event calendar.

You will need to register the first time that you use the page, and set your preferences for your home page. It only takes a few moments – then you are ready to participate, or just observe the discussions. To visit the site, and test the features for yourself, go to www.cop.asme.org.

Make Your Contribution to the FasTrack E-zine Today!

The FasTrack is emailed to early career members (previously known as the young engineer), and provides quick online access to what's new and current in professional & technical resources including highlighting featured member benefits and enhancements, etc.

The FasTrack e-zine features a special section called "**Q&A with Experienced Engineers (Five Career Questions Asked)**" and we invite you to share your experience. The idea is to feature an engineer each month responding to the same 5 questions. Among the questions posed are:

When you first started your career, what was the biggest lesson you learned on the job? What is the underlying foundation for career success today? How do you keep up-to-date within your industry? What advice would you give a recent engineering graduate looking for work? Has your involvement in ASME changed or influenced your career path?

If you are interested in contributing, please send your responses to Cheryl Hasan at hasanc@asme.org. Please include your name and job title, as it will be included in the section. To view the latest Fasttrack Ezine, click on: <http://www.asme.org/youngengineers/fastrack>

Engineers Provide Sustainable Solutions Through International Volunteerism

ASME members around the world have the chance to get involved in real-world engineering projects, gaining exposure and training in internationally responsible and sustainable engineering through ASME's partnership with Engineers Without Borders™ – USA (EWB-USA).

Offering a unique opportunity for professional engineers (active or retired) and engineering students, EWB-USA is a non-profit organization established in 2000 to help developing areas worldwide with their engineering needs. EWB-USA projects may involve the design and construction of water, waste-water, sanitation, energy, and shelter systems. Projects are initiated by, and completed with, contributions and support from the local, host community, which is trained to operate the systems without external assistance. In this way, projects are appropriate and self-sustaining. The projects are conducted by groups of students under the supervision of faculty and professional engineers from partnering engineering firms and professional Societies.

ASME members should contact Diedra Hackley (hackleyd@asme.org) if they are interested in any of the above projects, or would like to propose a project of their own.

Celebrating 125 Years of ASME



Log onto www.asme.org/anniversary for up-to-date information on events for ASME's 125th anniversary, as well as how you can become involved.

Events that are scheduled to take place in 2005 so far:

- **Founders Day: February 16, Wednesday**
- **Boiler Code Day: March 12, Saturday**
- **Heritage Day: April 7, Thursday**

Other events slated to take place during 2005 include landmark designations for William Seller's Screw Threads at the Franklin Institute in Philadelphia, Pa. and the Model-T at the Henry Ford Museum in Dearborn, Michigan.

Continuity & Change: The Financial Perspective

2004 September 25

By Tom Liberty

E-mail: Libertyt@asme.org

One of the key drivers for the Continuity & Change initiative was the realization that the ASME continues to spend more money each year than it generates from ongoing operations. Transferring funds from our financial investments offset this annual operating deficit. However, these investments have underperformed and as the total asset value decreased, and the percentage of investment assets transferred each year increased, we realized that this was not a sustainable policy.

Since our deficit for fiscal year (FY) 2002 was over \$4 million, on revenue of \$65.4 million, reducing our costs is clearly one of our top priorities. (Note: FY 2002 was the last year in which information was available for the ASME from the Internal Revenue Service while this report was being prepared).

Biggest Bang for Our Buck

Historically, ASME members have two “homes”: Technology- and physical location-based. The term “home” is used by the ASME to describe the primary interface that our members have with the society. Communication channels for this interface include meetings, teleconferences, the web, E-mail, and publications. Under the present structure, we all have a technology “home” in either a technology division or institute. We also have a “home” based on our physical location, which at the grassroots level is presently called a “section.” Our members make these selections each year when paying their dues.

Sections

Our member dues for the present fiscal year are \$118. Each section receives \$8 per member for the first 200 members. Larger sections are penalized via a reduction to \$4 per member for the portion of their membership greater than 200. Based on 2004 data from the ASME, there were over 100 sections with membership over 200. Further, there were over 10 sections with membership greater than 1,000. With an average section having membership of approximately 400, each section should receive an average of \$6 per member or a return of only 5% on our paid dues. For FY 2002, revenue from membership dues was \$8.3million. When we assume that 5% of our dues were reinvested in our section in FY 2002, then what do our sections receive for the other \$7.9million? Most members strongly support non-revenue generating activities such as those under the present Council on Education and Council on Public Affairs. However, those Councils also receive funds from the other major contributor to our revenue stream: The Council on Codes & Standards.

Since most sections attract members via word-of-mouth, newsletters, and events that are self-organized, the value of the ASME comes down to our combined membership knowledgebase and the value of the ASME brand. More and more sections are working with our technical divisions to host educational events and we need a simple method for cost and revenue sharing—this is how sections can utilize our membership’s knowledgebase. However, to actively move forward with this program requires that the technical divisions have funds available to cost share with the sections, and presently that’s not possible (see “Technical Divisions and Institutes”). As far as the ASME brand is concerned at the grassroots level: It certainly has value, but that value is well below 95% of our annual dues.

Technical Divisions and Institutes

Calculating the return on our dues for a technical division or institute is presently not possible because the ASME doesn’t have a financial reporting system that allows detailed reports that include distribution of dues to technical divisions as well as cost & revenue sharing from international level meetings and events. We’ve asked for this information for at least 15 years, but it still remains unavailable.

We would help the majority of our members if we contributed a significantly higher percentage of our dues to sections and technical divisions & institutes .

Where Should We Cut Costs?

The elimination (“Sun-setting”) of volunteer portions of our society has been the largest focus to date for cost cutting. Targets include technical divisions and sections. While there is little disagreement that if a technical division or section truly is no longer of interest to our members then it should be closed, the cost savings associated by closing a technical division or section is small compared to other areas of potential cost reductions.

When the ASME’s financial data is examined in detail, it becomes apparent that the following two areas need our primary attention in order to significantly reduce our costs:

Compensation & Professional fees	\$ 37,498,239	54%
Compensation of officers, directors, etc.	\$ -	
Salaries & wages	\$ 25,422,048	
Consulting	\$ 4,942,118	
Pension plan contributions	\$ 1,372,523	
Other employee benefits	\$ 3,257,974	
Payroll taxes	\$ 1,731,617	
Professional fundraising fees	\$ -	
Accounting fees	\$ 86,600	
Legal fees	\$ 685,359	
Professional services	\$ -	

Operations	\$ 18,145,706	26%
Occupancy	\$ 3,335,006	
Supplies	\$ 794,323	
Telephone	\$ 1,146,331	
Postage and shipping	\$ 3,273,559	
Equipment rental and maintenance	\$ 1,721,401	
Printing and publications	\$ 7,875,086	

Key Financial Measurements

When analyzing any organization, there are key measurements that help to determine the organization’s health and efficiency. Expenses on a “per client”, or in the ASME’s case, “per member” basis, as well as expenses on a “per employee” basis can highlight areas that need our attention. Simply put, the following analysis illustrates that our expenses are exceptionally high.

Key Financial Measurements	
Total Expenses per member	\$ 589
Operating Expenses per member	\$ 154
Average Dues per member	\$ 70
Total Expenses per employee	\$ 173,770
Average Compensation & Professional fees per employee	\$ 93,746

Includes non-paying members

Benchmarking

Since Continuity & Change was started, the Grassroots Team (www.GrassrootsEngineer.org) has worked with other societies and businesses to obtain “best-in-class” information on topics including operating philosophy, policies, and procedures. The consultants have included executives from the Aircraft Owners & Pilots Association (AOPA), Sports Car Club of America (SCCA) and Southwest Airlines.

Financial information from these societies is very useful in determining how we stack up to similar societies. The results from this study underscore the ASME’s high costs. For example (Note: See attached table for full FY 2002 comparison)

- The AOPA serves approximately 4 times as many members as the ASME, yet does so with 1/2 the staff and 1/3 of the ASME’s \$69.5million budget.
- Both the AOPA and SCCA spent approximately \$700,000 on occupancy fees while the ASME spent \$3.3million.

Areas for Improvement

How do we simultaneously improve our membership service, reinvest in our sections and technical divisions, while eliminating our annual deficit? One way to fail would be by raiding Codes & Standard’s revenue stream. Instead, we simply need to use the same method that everyone uses to balance their household budgets:

- Categorize and rank the programs most important to us and put our money into those top categories.
- Then reduce or eliminate spending in the other categories until our budget is balanced.

At the ASME, Compensation and Operating costs are the two 900 lbs gorillas. And they’re intertwined with our headquarter’s location in Manhattan—one of the world’s most expensive locations. As the SCCA has demonstrated, with their

recent cost-reducing move from Denver, Colorado to Topeka, Kansas: World-class service is no longer based on location—the internet, telephone, and convenient world-wide air travel from many cities eliminated that issue years ago.

It’s time to restructure the ASME so that ALL of our volunteer/staff team AND money is focused on serving ALL of our members. The first steps:

- Maintain a regional office in or near New York city for the few functions that require that particular location.
- Move our headquarters from Manhattan to a much less expensive, centrally located city.

These changes make financial sense and also make the strong statement to our members that “the ASME is fully committed to world-class service.”

Society	ASME ¹	AOPA ²	SCCA ³	Notes
Members	118,000	400,000	60,000	Estimate
Employment	400	200	50	Estimate

Revenue	\$ 65,424,581	\$ 23,301,710	\$ 8,344,879
Contributions, gifts, grants, and similar	\$ 947,798	\$ 52,868	\$ -
Program service revenue	\$ 54,478,183	\$ 1,646,190	\$ 4,740,454
Membership dues	\$ 8,283,974	\$ 14,484,010	\$ 2,509,172
Interest on savings and temporary cash investments	\$ -	\$ 36,976	\$ 127,867
Dividends and interest	\$ 2,135,288	\$ 887,640	\$ -
Net rental income	\$ -	\$ 42,000	\$ 206,868
Net gain from sales of assets other than inventory	\$ (420,662)	\$ (2,727,621)	\$ 498,994
Gross profit from sales of inventory	\$ -	\$ 3,345	\$ 30,745
Other revenue	\$ -	\$ 8,876,302	\$ 230,779

Annual Expenses	\$ 69,508,085	% Expenses	\$ 23,401,417	% Expenses	\$ 8,752,683	% Expenses
Compensation & Professional fees	\$ 37,498,239	54%	\$ 12,345,639	53%	\$ 1,965,467	22%
Compensation of officers, directors, etc.	\$ -		\$ 348,578		\$ 381,116	
Salaries & wages	\$ 25,422,048		\$ 6,599,103		\$ 1,489,393	
Consulting	\$ 4,942,118					
Pension plan contributions	\$ 1,372,523		\$ 1,269,340		\$ -	
Other employee	\$ 3,257,974		\$ 517,978		\$ -	

benefits							
Payroll taxes	\$ 1,731,617		\$ 485,672		\$ -		
Professional fundraising fees	\$ -		\$ -		\$ -		
Accounting fees	\$ 86,600		\$ 134,192		\$ 64,674		
Legal fees	\$ 685,359		\$ 291,568		\$ 30,284		
Professional services	\$ -		\$ 2,699,208		\$ -		

Operations	\$ 18,145,706	26%	\$ 5,973,162	26%	\$ 1,167,080	13%	
Occupancy	\$ 3,335,006		\$ 700,359		\$ 700,636		
Supplies	\$ 794,323		\$ 91,419		\$ 60,549		
Telephone	\$ 1,146,331		\$ 166,549		\$ 51,364		
Postage and shipping	\$ 3,273,559		\$ 2,608,671		\$ 163,865		
Equipment rental and maintenance	\$ 1,721,401		\$ 851,860		\$ 55,100		
Printing and publications	\$ 7,875,086		\$ 1,554,304		\$ 135,566		

Travel & Conference	\$ 6,212,209	9%	\$ 1,325,989	6%	\$ -	0%	
Travel	\$ 3,713,439		\$ 311,634		\$ -		
Conferences, conventions, and meetings	\$ 2,498,770		\$ 1,014,355		\$ -		

Other	\$ 7,651,931	11%	\$ 3,756,627	16%	\$ 5,620,136	64%	
Sundry/Miscellaneous/Other	\$ 2,590,639		\$ 1,450,346		\$ 5,450,778		
Interest	\$ -		\$ 135,976		\$ 20,943		
Depreciation, depletion, etc.	\$ 1,988,120		\$ 998,906		\$ 148,415		
Awards, honorariums & contributions	\$ 1,052,503		\$ -		\$ -		
Professional dues, publications	\$ 743,145		\$ -		\$ -		
Advertising & advertising commissions	\$ 1,277,524		\$ -		\$ -		
Membership premiums	\$ -		\$ 971,267		\$ -		
Non-cap purchases	\$ -		\$ 200,132		\$ -		

Excess (Deficit)	\$ (4,083,504)		\$ (99,707)		\$ (407,804)		
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Key Financial Measurements							
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Total Expenses per member	\$ 589		\$ 59		\$ 146		
Operating Expenses per member	\$ 154		\$ 15		\$ 19		
Average Dues per member	\$ 70		\$ 36		\$ 42		Includes non-paying members
Total Expenses per employee	\$ 173,770		\$ 117,007		\$ 175,054		
Average Compensation & Professional fees per employee	\$ 93,746		\$ 61,728		\$ 39,309		

- Note 1: Source: Internal Revenue Service/American Society of Mechanical Engineers (ASME) for fiscal year ending on 30 June 2002
- Note 2: Source: Internal Revenue Service/Aircraft Owners and Pilots Association (AOPA) for fiscal year ending on 31 December 2002
- Note 3: Source: Internal Revenue Service/Sports Car Club of America (SCCA) for fiscal year ending on 31 March 2002

Information contained in this document is believed to be reliable. It has not been verified for accuracy or completeness

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“Stump the Engineer” - Monthly Trivia Question

In an effort to encourage members to visit the website and read the newsletters, a monthly Engineering Trivia Contest has been established. Each month a question will appear in the newsletter. Participants must go to the website and log-in their answer, along with their e-mail address. A winner will be chosen each month and receive a free ASME polo shirt.

November Trivia Question

Name 5 of ASME's Top Ten engineering achievements of the 20th century...

To answer this question and enter the prize drawing, go to <http://sems.asme.org/>

Click on **“Stump the Engineer” – Monthly Trivia Question**

October Trivia Question Answer:

In 1948, the Swiss inventor George de Mestral came up with the idea for this globally known product after talking a nature hike with his dog. What was it? VELCRO

New Name for the Section...

The ASME Southeastern Michigan Section is looking for a new name! Suggest a section title that ASME members on the national level will recognize and that reflects the membership of the local regions. Contact any of the officers with suggestions, and check out the website <http://sems.asme.org> for more details.