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American Chemical Society

Form: Part II - Annual Narrative Report Optional for EZ Submission

Organization: Michigan State University
Year: 2004

A. Activities

Please describe and rank up to ten of your section's activities during 2004. Provide (a) the title of the activity, (b) a one paragraph description of the activity, and (c) an indication of which ACS Strategic Thrusts. Please refer to the end of this section for a listing of the ACS Strategic Thrusts or see Part I, questions 3-8. If you wish to provide details beyond these paragraphs, please do so in Appendix 1.

Activity #1

a) Title: Chemistry Merit Badge Day

b) Description (please limit to one paragraph):

Last spring, Women in Chemistry at Michigan State University organized the first-ever Scout Chemistry Merit Badge Day with the help of the Alpha Upsilon chapter of the Alpha Chi Sigma chemistry fraternity. This event was designed so that boy and girl scouts could complete most of the requirements for their chemistry badges within one day in the chemistry building at MSU. Many weeks of planning went into the event, which coordinated efforts between boy scouts, girl scouts, and volunteers from the MSU chemistry department. The day included a morning lecture on laboratory safety and environmental pollution, hands-on experiments throughout the day in analytical, organic, inorganic, physical, and biochemistry, a lunchtime poster session presented by the scouts, a panel discussion on chemistry careers, a laser lab tour, and ended with a capstone lecture by an environmental engineer. In the poster session, each scout presented a poster he or she had prepared on the uses and proper disposal of 10 common household chemicals. In addition, boy scouts completed a corrosion project with nails prior to the event, and brought their experiments with them to Merit Badge Day to discuss with volunteers. Over 40 scouts participated in the event from 8 troops.
http://www.chemistry.msu.edu/acswic/outreach.html

c) Which Core Strategy(s)does this activity support? (Please refer to the List of Core Strategies)

☐ 1 ☐ 2 ☑ 3 ☑ 4 ☐ 5 ☑ 6

☑ This activity was new in 2004

Activity #2

a) Title: Career Day

b) Description (Please limit to one paragraph):

On April 9, 2004, the Huron Valley Local YCC and the Michigan State University YCC hosted an ACS workshop titled ?Managing an Effective Job Search.? There were 49 students in attendance: 38 were from MSU and 11 were from Huron Valley. Undergraduates, graduate students, and post docs from chemistry, biochemistry, and engineering departments from MSU, University of Michigan, and Eastern Michigan University were in attendance. The workshop, presented by Ray O? Connell from ACS Career Services. Participants were able to have their resumes and vitas critiqued in a one-on-one setting. All participants were encouraged to complete a survey critiquing the workshop. Twenty-nine students responded. All students indicated that, as a result of the workshop, they were better prepared for their job searches. Most reported that the resume tips and interviewing techniques were most useful. The impact of this activity reaches beyond the individual gains of the participants. The planning of workshop has opened a dialog between the two sections, which will allow the Huron Valley YCC to model the success of the MSU YCC. Further, based on the success of this program, follow-up professional development activities will be planned in the near future.

c) Which Core Strategy(s) does this activity support? (Please refer to the list of Strategic Thrusts)

☐ 1 ☑ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6

☑ This activity was new in 2004

Activity #3

a) Title: Girl Scout Chemistry IPP

While planning the 2004 Scout Chemistry Merit Badge day during the end of the fall semester in 2003, Women in Chemistry became aware that a chemistry patch did not exist for girl scouts. The girl scouts have Interest Project Patches (IPPs), which are equivalent to the boy scout merit badge, but no such patch existed locally or nationally for girls. In the past few years, the outreach component of the Women in Chemistry?s efforts have grown as we have become more aware of our ability and responsibility to further facilitate gender diversity by encouraging young girls to pursue scientific careers. The fact that no IPP existed for Chemistry was very surprising and we felt that we could make a great contribution to the girl scouts by creating one. A few WiC

members wrote the requirements for an IPP, maintaining the basic IPP format and including ? Skill Builders,? ?Technology? projects, a ?Service Project,? and a ?Career Exploration? activity, and designing the requirements so that the IPP could be completed at home, or at Scout Chemistry Merit Badge Day. The Chemistry IPP was approved by the Girl Scouts of Michigan Capital Council for use last March. Six girls were the first in history to complete the Chemistry IPP at Scout Chemistry Merit Badge Day last spring. This year, 36 girls are registered to participate from local girl scout councils. Moreover, we have been contacted by councils in Wisconsin, California, and Texas who are planning to complete the IPP with their girls. http://www.chemistry.msu.edu/scouts/gsipp.html

b) Description Please limit to one paragraph

c) Which Core Strategy(s) does this activity support? (Please refer to the list of Core Strategies)

☐ 1 ☐ 2 ☑ 3 ☑ 4 ☐ 5 ☑ 6

☑ This activity was new in 2004

Activity #4

a) Title: Chemistry Day at Impression 5

The MSU Local Section once again ushered in National Chemistry Week with our 18th annual ?Chemistry Day? hands-on activity/demonstration event held from 10 am ? 3:30 pm on Saturday, October 23, 2004 at Impression 5 Science Center, a local science museum. Admission to the museum was free, thanks to a generous donation from MBI International, a Lansing biotechnology firm. The total attendence for the event was 2,607. Though the event was open to the public, Girl Scout and Boy Scout troops were specifically invited to pre-register and attend by publicizing the event through the local councils. Any scout attending received a scout patch (this is the fifth year we?ve done this; the patch is the Health and Wellness theme patch created by the OCA). The total scout attendence was 902, including 584 Boy Scouts and 318 Girl Scouts. Forty tables of hands-on activities, most consistent with the theme, were presented by students from the Michigan State University Department of Chemistry, School of Nursing, and Human Medicine, from the University of Michigan chapter of the American Student Dental Association (ASDA), and three local high schools as well as by employees of MBI International. Theme related activities included demonstration of Clinistix in diagnosing illness, sunscreen protection of UV- sensitive beads, tests for the freshness of milk and the vitamin C in beverages, sugar content of foods illustrated by weighing, separation of DNA in bananas, filling of ?cavities? in apples, hand-washing effectiveness, and the use of polymers in diapers (and many more!). Members of the ASDA were handing out free toothbrushes and the student nurses were demonstrating the use of stethoscopes. In addition to the participation patch, each participant received an NCW activity newspaper, a ?Hooray for Chemistry? bag, and an NCW helium

b) Description (Please limit to one paragraph)

balloon.
http://www.chemistry.msu.edu/chemday/

c) Which Core Strategy(s) does this activity support? (Please refer to the list of core strategies.)

☐ 1 ☐ 2 ☑ 3 ☐ 4 ☑ 5 ☑ 6

☐ This activity was new in 2004

Activity #5

a) Title: Women in Chemistry

The seventh year of Women in Chemistry (WiC) has proven to be the best yet, with continually increasing interest and participation. Although the mission of the group has remained the same, WiC strives to sponsor new types of activities in a variety of formats that will reach a number of different audiences. The specific goals for 2004 were (1) to provide members with networking opportunities within our local section and beyond, (2) to maintain a strong outreach program, and (3) to find ways to further increase and diversify participation in WiC activities. The first goal was met through a continuing Meet the Speaker program, in which members chat informally with women visiting the department, and through a brown bag lunch series in which women faculty led informal discussions about important career-related topics. WiC maintained a strong outreach program by hosting the first annual

Scout Merit Badge Day and also designing an Interest Project Patch in chemistry for Girl Scouts, by participating in the Girls Math/Science Conference and playing a key role in the local section?s organization of our National Chemistry Week event. WiC also worked with a local high school to give AP Chemistry students hands-on experience with analytical instrumentation. WiC has also promoted diversity and increased membership through the second annual welcome luncheon for incoming women graduate students, through a year-end potluck dinner, and by hosting several events that appeal to all graduate students, such as the brown bag lunch series and the American Cancer Society?s Making Strides against Breast Cancer. WiC had a very busy 2004 and are looking forward to an equally productive 2005.

b) Description Please limit to one Paragaph

http://www.chemistry.msu.edu/acswic/index.html

c) Which Core Strategy(s) does this activity support? (Please refer to the list of Core Strategies)

☐ 1 ☑ 2 ☑ 3 ☐ 4 ☑ 5 ☑ 6

☐ This activity was new in 2004

Activity #6

a) Title: Chemistry Olympiad

Description
Please limit
b) to one Paragraph

The MSU Local Section has been a participant in the US National Chemistry Olympiad (USNCO) program for many years. In 2004, we hosted 35 students from East Lansing, Holt, Lansing Sexton, Okemos, Leslie, Perry, Fowlerville, and Stockbridge High Schools in the local section Chemistry Olympiad qualifying examination held in the MSU chemistry Building. The students took a multiple choice examination. Several MSU faculty members served as proctors for the written and laboratory examinations. Eight students qualified to write the USNCO test, which was held at Michigan State University.

c) Which Core Strategy(s) does this Activity Support? (Please refer to the list of Core Strategies.

☐ 1 ☐ 2 ☑ 3 ☐ 4 ☐ 5 ☐ 6

☐ This activity was new in 2004

Activity #7

a) Title: Project SEED

Description:
Please limit to
b) one paragraph

PROJECT SEED AT MSU, SUMMER 2004

Team: Professors Babak Borhan, Robert Maleczka, James Jackson, John Frost, Bill Wulff and Greg Baker, and graduate assistant Courtney Olmsted and Marina Tanasova

Project SEED was started by the American Chemical Society in 1968 to provide a summer research experience in chemistry or a related field to economically disadvantaged high school students. Students are placed in academic, industrial, and government laboratories for eight to ten weeks during the summer to participate in hands-on research. Professor Babak Borhan, assisted by graduate students Courtney Olmsted and Marina Tanasova were in charge of recruiting and mentoring students. Fliers and brochures were sent out to local high school science teachers with significant populations of economically disadvantaged students since the ACS requires the family income of each participating student to be no more than 200% of the Federal Poverty Guidelines for his/her family size.
Teachers with interested students responded and were sent an application designed by the MSU team. Each application required a resume, a statement of interest, and a letter of recommendation from a science
teacher.
This encouraged the students to highlight their talents as well as taught them important business skills for requesting recommendation letters and submitting applications.
This year six students participated in the program.

c) Which Core Strategy (s) does this activity support? (Please refer to the list of Core Strategies).

☐ 1 ☐ 2 ☑ 3 ☐ 4 ☑ 5 ☑ 6

☐ This activity was new in 2004

Activity #8

a) Title: Awards

Description: Please limit to one paragraph.

b)

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This year the MSU local section presented several
Awards of Excellence including the High School Teacher
Award, College Student Awards and Travel Awards.

The High School Teacher Awards are designed to
support and encourage high school teachers and their
principals to go beyond the traditial class room
teachings. The highschool principals may nominate
their
chemistry teachers and their programs. The Awardees
will receive a certificate of excellence in addition
to
a monetary award. In addition, the award also includes
funds to High School with the purpose to fund and
enhance the Chemistry Program in addition to the
current support provided by the School. The 2004
winner was Patricia Shelley from Williamston High
School.

The college student awards are designed to recognize
excellence in preformance from undergraduate
chemistry students
within our local ACS section. The following awards
were given to MSU students in 2004:
Taylor Daniel Thelen, Freshman Chemistry
Kevin Kimball Ogden, Freshman Honors Chemistry
Kathryn Camille Ambrose, Organic Chemistry
Jeffrey Richard Gour, Physical Chemistry
Andrew Carl Goetz, Analytical Chemistry
Jonathan James Brudnak, Inorganic Chemistry
Andrew Carl Goetz, Robert Clark Kedzie Award for BS
Chemistry Graduate
Patrick Robert Medland, Robert Clark Kedzie Award for
BA Chemistry Graduate

The following awards were given to student from other
colleges in the local section:
Leo Trumble - Lansing Community College
Nathan Adams - Spring Arbor University

Travel grants were also provided to assist four
undergraduate and graduate students presenting
research at technical meetings.
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c) Which Core Strategy(s) does this activity support? (Please refer to the list of Core Strategies).

☐ 1 ☑ 2 ☑ 3 ☐ 4 ☐ 5 ☐ 6

☐ This activity was new in 2004

Activity #9

a) Title: Younger chemist committee

b) Description: Please Limit to one paragraph

LSYCC is a committee designed to enable all students interested in chemistry to interact within the science community and develop the skills needed to pursue a successful career in their chosen field. We provide opportunities for students to interact with each other and the community to promote the possibilities of science. This past year was a great year. We held a very successful career building seminar in the spring in conjunction with the EMU/UM YCC chapter. The turn out was fantastic and we look forward to similar events this coming year. In 2004 we also held our annual student/faculty mixer that provides an opportunity for new graduate students to meet other graduate students and faculty in an informal atmosphere. This informal meeting is intended to enable the students to establish a network outside of their immediate research area. Every year it is well received and this year was no exception. We also provide an opportunity to reach out to the community with our participation in Chemistry Day activates.
We are looking forward to a very eventful year and hoping to introduce some new activities.

c) Which Core Strategy(s) does this activity support? (Please refer to the list of Core Strategies)

☐ 1 ☑ 2 ☑ 3 ☐ 4 ☑ 5 ☐ 6

☐ This activity was new in 2004

Activity #10

a) Title: Science Theatre Support

b) Description: Please limit to one paragraph

Science Theatre is an outreach organization run by Michigan State University student volunteers. They bring entertaining science demonstrations to the general public to spark their interest in science. Their performances demonstrate basic scientific concepts and inspire audience members to develop an appreciation for science in their everyday lives. Because of recent budget cuts, support for Science Theatre by the MSU Department of Chemistry was dropped. The ACS local section sought to assist the organization by providing some financial support. Science theatre provided many volunteers and activities for Chemistry Day at Impression 5. In addition the funds have allowed them to continue taking their activities into the local K-12 schools.

c) Which Core Strategy(s) does this activity support? (Please refer to the list of Core Strategies)

☐ 1 ☐ 2 ☑ 3 ☐ 4 ☐ 5 ☐ 6

☑ This Activity was new in 2004

B. Summary - Overall Section Activities

Please summarize in *1,000 words or less*, the activities of the section in 2004 which have not been already described. Outstanding events should be described in some detail and appropriate attachments included in Appendix 1. Programs described here may be featured in publications produced by the ACS Membership Division and/or at the ACS Leaders Conference.

Organic Chemistry Club:
The ACS local section sponsors the organic chemistry club held every Wednesday at Michigan State University.
The meeting is open to all members/students and is generally represented by ~20 graduate students which present papers and mechanistic problems to the group.
The ACS sponsors snack and beverages during this weekly
event.

Theory Conference:
The ACS local section sponsored part of this years 36th
Midwest Theoretical Chemical Conference held on June 17-19, 2004. Plenary lectures were presented by, Professor Mark S. Gordon, Iowa State University and Ames Laboratory Professor Todd J. Martinez, University of Illinois at Urbana-Champaign, Dr. William Swope, IBM
and Professor Donald G. Truhlar, University of Minnesota. A limited number of travel grants for students giving a talk or presenting a poster at the conference were provided by the Michigan State University Local Section of American Chemical Society.

Leopalooza:
In 2004 the MSU local section supported a symposium in honor of Professor Leo Paquette's 70th birthday. ?Leopalooza? was held on Friday-Saturday July 9-10, 2004 in Columbus, OH. The symposium was attended by over 200 registered chemists and their guests from around the globe. The symposium presenters were equally international. Speakers included Steve Ley (Cambridge), Nao Maezaki (Osaka), Matthew Wyvratt (Merck), Chris Rayner (Leeds), Dennis Liotta (Emory), Mike Detty (SUNY, Buffalo), Bob Ternansky (Attenuon), and Tim Lowinger (Bayer). Moreover 24 chemists presented posters at the event.
It is very rare when a single individual can be considered responsible in part for the success of so many people and their efforts in chemistry. Given the magnitude and impact of Leo?s accomplishments, the MSU local section viewed this as an opportunity to reach out beyond our section borders an participate in the organization of the event. Specifically, the section served as the collection point for registrations and donations made toward the establishment of a Paquette endowment in the Department of Chemistry at the Ohio State University. In this capacity, the section collected the $10176.93 necessary to pay the symposium expenses as well as an additional $33147.32 that was transferred directly to OSU (tax ID 31-6025986) for establishment of the endowment. As a consequence of these efforts OSU will be hosting the first Paquette endowed lecture series this spring (2005).

C. Local Section and Chair Goals

1. **2004 Goal Attainment**. The Local Section Activities Committee strongly encourages local section planning. As a result, the 2004 local section annual report should follow-up on the attainment of goals. Please list the goals you set at the beginning of your term for your section and yourself, and report on the attainment of the goals.

a) **Local Section Goals and Assessment**:

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1. To enhance the professional development of our
section members.
2. To encourage and inspire young students to pursue
careers in the natural sciences, especially chemistry.
3. To provide a mechanism for informing/educating the
general public on chemical issues.
4. To initiate a mentoring program to expand our
outreach activities and support of minority students.
5. To organize our outreach activities at local
schools
to match the goals of Kids and Chemistry program.

Assessment:
Through programs like Program SEED, the Organic
Chemistry Clubs, Younger Chemists Committee, and
Women in Chemistry, we have provided valuable
development services for our members. These
organizations have provided information both on
technical expertise and contact development.

Goals 2 and 3 above have been addressed through
several different programs for the general public and
young students in particular. For example, "Chemistry
Day at Impression 5" brought ~2600 people to hear
about the contributions of chemistry to society and
to see chemical demonstrations.  In addition, we have
initiated award programs to encourage excellence in
teaching and support science activities at local
highschools.

For minority students, the MSU local section is in
its second year of participation in the ACS SEED
program, which is designed for disadvantaged students
to come to MSU over the summer to do research in
faculty laboratories. Hopefully, through this program
more minority and disadvantaged students will gain
the interest and confidence to begin careers in the
sciences.

Although improvement in our outreach activities at
local schools still needs improvement, we did have
significant programs involving area schools. For
example, several high schools participated in our
Chemistry Day activities, members gave demonstrations
at area schools, WiC conducted hands-on workshops at
the Girls Math Science Conference for 6th Grade
Girls, and we continued participation in Chemistry
Olympiad.
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b) **2004 Chair's Goals and Assessment**:

1. Continue to provide financial support for the broadrange of outstanding activities currently promoted
by the section.
2. Build on the continuing effort to involve the broader membership who are not on the MSU campus in local section activities.
3. Increase involvement of schools and the local section membership with National Chemistry Week, Award Programs and other activities which inform/educate the general public on chemistry-related issues.

Assessment:
In the past year, we aided four students financially in attending a National ACS Meeting. In addition, we supported the WiC, Organic Chemistry Club, Science Theatre, and Younger
Chemists Committee in their activities.

We continued to have contact with people outside of the Michigan State campus regarding activities through the newsletter. Several of our activities were attended by members off the MSU campus.

National Chemistry Week activities were very well attended this year with ~2600 people coming to "Chemistry Day at Impression 5" and 137 students doing demonstrations. Many of the demonstrators were from area high schools.

In addition highschool teach awards were initiated to support exceptional teaching programs in our local section. It should be noted that one of our previous High school awardee was Ms Annis Hapkiewicz, who recenlty received the prestigious ACS, James Byrant Conant Award which was presented to her at the San Diego National ACS meeting this year.

2. **2005 Goals**. (This section should be completed by the 2005 local section chair.) Please list below at least three goals that you and your local section plan to accomplish during your term as local section chair.

a) 2005 Local Section Goals (Include at least three goals):

1. To enhance the professional development of our section members.
2. To encourage and inspire young students to pursue careers in the natural sciences, especially chemistry.
3. To provide a mechanism for informing/educating the general public on chemical issues.
4. To initiate a mentoring program to expand our outreach activities and support of minority students.
5. To increase the amount of career counseling available through the local section.

b) 2005 Chair's Goals:

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1. Continue to provide financial support for the
broad
range of outstanding activities currently promoted by
the section.
2. Increase involvement of schools and the local
section membership with National Chemistry Week and
other activities which inform/educate the general
public on chemistry-related issues.
3. Encourage increased activity by K-12 teachers by
making them affiliate members of the local section.
4. Collaborate with other local sections.
5. Involve members of other professional societies
such as AIChE.
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D. Suggestions/Concerns

List any suggestions you have for the Local Section Activities Committee (LSAC). How can LSAC specifically help your section?

Listing of Core Strategies

Please refer to the numbers below when identfiying activities as they relate to the ACS Core Strategies

1 Providing Timely State-of-the-Art Chemical Information.

2 Serving as a Premier Professional Organization for Practioners of Chemistry.

3 Elevating Public Appreciation of Chemical Sciences and Technologies.

4 Changing the Defination of Chemistry to Encompass its True Multidisciplinary Nature.

5 Delivering a Dynamic and Integrated Portfolio of Products and Services.

6 Promoting Inclusiveness throughout the Chemical Enterprise.

For more information on the Core Strategies or the ACS Strategic Plan 2004-2007 please visit www. chemistry.org.