

Student Chapters of the AMS: A Perspective

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ABSTRACT

Over the past decade the number of active student chapters of the American Meteorological Society (AMS) has nearly doubled. Slightly more than one-third of the total number of local chapters are, in fact, student organizations. A survey was conducted to determine how student organizations interact with their more senior counterparts and with the national organization. The response rate to the survey was nearly 40 percent.

In general it was found that most student chapters interact closely with nearby local chapters through invited volunteer speakers and organized job fairs. Interaction with the national chapter was more limited. On average, only about 25% of student chapter members also belong to the national chapter of the AMS. The responses indicated that the percentage was higher for graduate students and significantly lower for undergraduates. Nevertheless, almost all the responses noted the availability of student travel grants and reduced registration fees at the AMS annual meetings and reduced subscription rates on scientific publications as important benefits of belonging to the national organization.

The student chapters suggested several ways that the national organization could enhance the interaction with their membership. Ideas ranged from further reductions in the cost of student registration fees at conferences to establishing a database of professionals willing to speak at student chapter meetings. Another popular idea was to help organize and promote summer internships and to offer career guidance.

There is no doubt that students represent the future of the national organization. Moreover, student organizations exhibit tremendous energy and enthusiasm in promoting K-12 outreach and public awareness in the atmospheric sciences. It is hoped that this article based on the survey will help focus attention on student related issues and help strengthen the bond between student chapters and the national organization.

INTRODUCTION

The oldest active student chapter was founded in 1952 at Pennsylvania State University, followed closely by Texas A&M University and the University of Oklahoma, both founded in 1956. The number of active student chapters of the American Meteorological Society (AMS) has grown, especially in the past decade (Fig. 1), and now represents more than one-third of the total number of active AMS local chapters.

Undergraduates pursuing a Bachelors degree in atmospheric sciences or a related field typically dominate student chapters' memberships. A common perception is that undergraduate members are most familiar with the national organization through scholarship opportunities organized and promoted by the AMS. For example, other than receiving the Bulletin of the AMS, the only interaction that this author had with the national chapter during his undergraduate years was through application and receipt of an AMS scholarship. Like then, perhaps, most undergraduate students today may be

somewhat unfamiliar of the role of the national organization in promoting scientific discourse, education, and public awareness.

Recently the national organization has moved to expand the number of opportunities for interaction with students. This includes not only the addition of several new scholarships, but also the availability of travel grants to bring students to conferences, reduced registration fees at conferences, career mentoring luncheons at the annual meeting and hosting the first Student Conference— held at the 2001 Annual Meeting in Orlando, FL. Individual accounts by students who have participated in these initiatives indicate that they have become vastly more aware of the vital role that the national organization plays in education, research, and public policy. Moreover, several students report a renewal in their enthusiasm for the science as well as a sharpening of their focus towards a specific sub-discipline.

To further identify actions that can be taken to enhance the interaction between student chapters and the national organization, an informal survey (Table 1) was sent by electronic mail to the officers of the 35 active student chapters identified by the AMS in 2000. Thirteen of these surveys were returned for a response rate of about 40 percent. While the survey was informal, the responses provide valuable insight to how student chapters view the national organization. The purpose of this article is to report the results of the survey and to focus attention on ways that the national organization can further enhance interactions with its student chapters. Given the remarkable energy that students expend in performing K-12 outreach and public awareness activities, the national organization has a profound interest in further strengthening its bond with student chapters.

RESULTS

When you think of the national chapter of the AMS, what three things come to mind?

The survey suggested a few items that students might select as answers (Table 1). That may have biased the response. Regardless, the leading answer, opportunities for students at AMS conferences, appeared in all the responses. Moreover, many of the responses identified reduced registration fees and travel grants for students as part of the answer. That information was not suggested and shows the response may accurately reflect student perception of the national organization. The second most popular response, appearing ten times, was publications. This is likely a result of the inclusion of a subscription to the Bulletin with their student dues. The Broadcasting Seal of Approval was mentioned in seven responses while scholarships and professional opportunities were mentioned three times each.

It may be surprising that so few responses included access to scholarships. Sensitivity to scholarship information may depend on either financial need or a sense of academic accomplishment. In that regard, most upper-division undergraduate and graduate students may not be seeking scholarship information. Conferences, on the other hand, are readily promoted in the Bulletin. The national organization has also made a concerted effort in the past few years to increase the opportunities for student participation at conferences. This effort appears to be reaping dividends.

What interaction does your chapter have with the national organization of other chapters in your area?

The majority of the responses focused on interactions with local chapters, other student chapters, or other student organizations on campus. Having members from local

chapters come give talks at the student meetings was the most common form of interaction, appearing on nine of the 13 responses. Hosting or attending a workshop sponsored by another AMS chapter and judging local science fairs each received mention four times.

At the national level, half of the student chapters noted that members in their organization have attended an Annual Meeting. And half of the student chapters report that they routinely submit minutes of their meetings to the Bulletin. Reports from student chapters help to promote outreach and provide a forum for exchanging ideas for interesting activities and fundraisers.

While 50 percent of the student chapters apparently have some interaction with the national organization, a third of the responses indicated that they felt the interaction was too limited.

According to your members, what are the most important benefits of membership in the national organization?

Financial benefits clearly topped the list. Twelve responses mentioned reduced journal subscription rates and reduced prices on scientific books and reports. Ten responses listed reduced registration fees at AMS conferences. Based on a few of the surveys, it appears that graduate student members may have outweighed their undergraduate counterparts on providing a response to this question. Hence, it is not clear if the majority of the members of the student chapters are sharing in the most commonly reported benefits.

What percentage of the members in your student organization are also members of the national chapter of the AMS?

Two of the surveys provided no answer. Of the remaining eleven, only two indicated that more than 50 percent of their members also belong to the national organization. An equal number indicated that between 5-10 percent of their members belonged to the national chapter. On average, it appears that about 25 percent of the members of student chapters are also members of the national organization. Based on the comments included in the responses, the percentage is higher for graduate students and significantly lower for undergraduates. Moreover, based on the enrollment assumed to exist at the institutions that replied, it appears that the higher percentages are associated with smaller programs. Larger programs, like Texas A&M University which has about 60 undergraduate student members out of roughly 100 declared undergraduate majors, have a relatively low percentage of undergraduate students that belong to the national chapter. Hence, members of student organizations, particularly undergraduates, are an untapped resource at the national level.

What do you wish the national organization would do to promote education?

The intent of this question was to focus on education at the level of the student chapter members. However, nearly half of the respondents included K-12 outreach as an important component of meteorological education. Several suggested that the national organization could help promote K-12 activities performed by the student chapters.

As for education at the college level, half of the student chapters suggested that the national chapter should provide more professional opportunities. Specifically mentioned were: student conferences, student job listings (esp. summer internships), research opportunities, and promoting student workshops. Half of the respondents also

suggested that grants be made available to student organizations to promote science fairs, defray the cost of trips to national centers, or to attend AMS conferences.

Of course, the student chapters realize that the AMS already provides travel assistance to the Annual Meeting. Their response emphasizes that access to AMS conferences is viewed as an important educational experience.

What sort of outreach would benefit your members the most?

Having affordable conference registration fees once again topped the list of responses. Research grants and contracts typically cover registration fees and travel costs for graduate students. Undergraduates, on the other hand, are less frequently employed on research grants and, unless they are fortunate enough to receive one of the travel grants from the AMS, have to bear the full cost of attending a conference. Even when undergraduates are employed on research contracts, it is doubtful that they will be taken to conferences as travel costs and registration fees are usually prohibitive.

Closely behind reduced registration fees, the student chapters wanted assistance in arranging professional speakers. They are not seeking financial assistance. Instead, the students suggested that the national organization develops and maintains a database of professionals that would be willing to travel to nearby student chapters and give presentations. Another data base that the students would find beneficial is one related to career guidance, including entry-level job opportunities and summer internships.

What was the coolest thing your chapter did during the past couple of years?

Not surprising, most responses focused on a particularly fun activity at one of their meetings or a trip to a national center like the National Severe Storms Laboratory in Norman, OK. One response, however, deserves special mention because it should remind each of us of why we belong to the AMS. From Brian Ghazale at Kean University, “the coolest thing my chapter has done, and not only in the past two years, is being there for each other.”

CONCLUSIONS

Currently, student chapters account for slightly more than a third of the total number of local chapters of the AMS. Undergraduates typically dominate the membership of student chapters. With the notable exception of the generous scholarship program, there have been relatively few national initiatives aimed at undergraduate members of the AMS. Recently, however, the national organization has made a concerted effort to enhance opportunities for students by providing travel grants and significantly reduced registration fees at the AMS Annual Meeting. Additionally, the first Student Conference was held at the 2001 Annual Meeting in Orlando, FL. In response to an informal survey of student chapters, it is clear that the students view participation at national conferences as a valuable educational experience and would like to see more opportunities available for more members to attend.

Other actions that the students suggest would benefit their members include a database of volunteer speakers organized by geographical region and presentation topic. This would facilitate more rapid exchange of new scientific discoveries, emerging technologies, or professional opportunities of interest to the student members. Student chapters would also like to see the AMS develop and maintain a career guidance database that contains information about various careers as well as listings of entry-level positions and summer internships. Atmospheric science programs at most universities are too

small to sustain vigorous recruiting efforts by industry, government, or consulting firms. Hence, there are few centralized locations for students to gather information concerning career opportunities in the atmospheric sciences.

As a faculty advisor for a student chapter, it was disappointing to discover that only about 25 percent of the members of student chapters are also members of the national organization. Students, particularly undergraduates, often have a strong desire to perform public service and may be the most likely members to actively engage in K-12 outreach and public awareness activities. It seems that at the professional level there is a strong desire but a perceived lack of resources or incentives necessary to stimulate much action beyond career obligations. Promoting and sponsoring student activities through competitive mini-grants may well be an effective means for the national organization to enhance primary school outreach and public awareness services. In that regard, the vast number of members in student chapters of the AMS represent an untapped resource that could assist the national organization in furthering its goals.

If you have suggestions or recommendations on what the AMS could do for students and student local chapters, please contact me at mikeb@ariel.met.tamu.edu. *Dr. Michael I. Biggerstaff, Local Chapter Affairs Committee.*

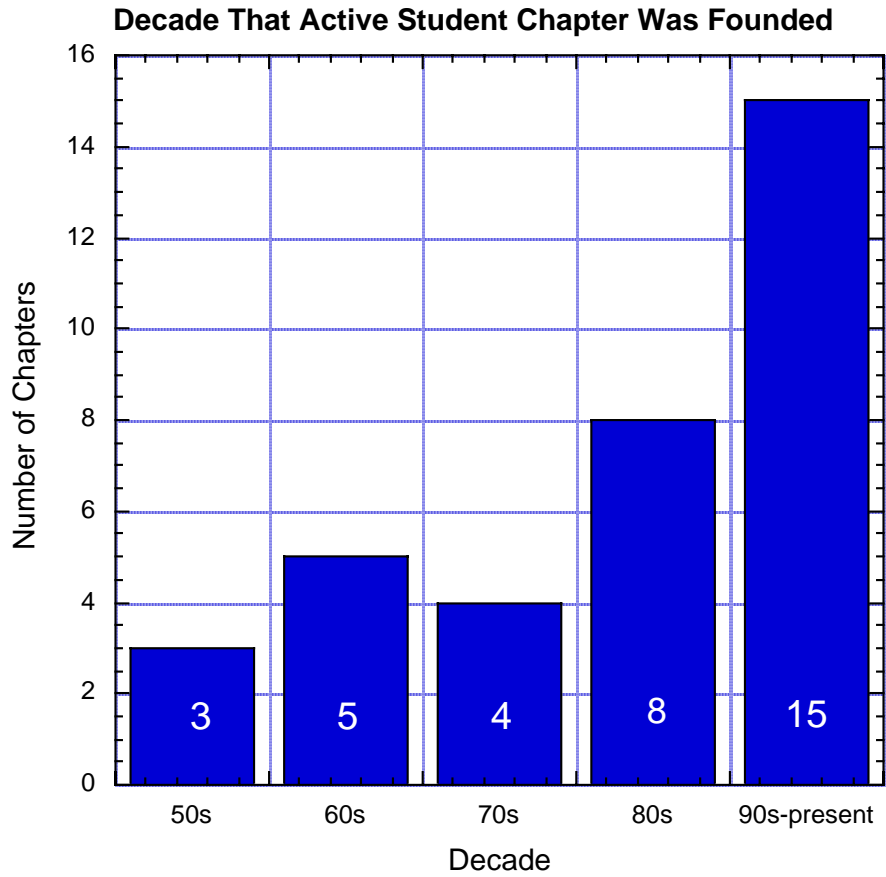


Figure 1. Graphical distribution of the number of active student chapters founded in each decade starting with the oldest chapter in the 1950s and ending for chapters that were active in 2000.

Table 1. Survey questions and number of returned surveys with responses to that question.

Question	Number of responses
1. When you think of the national chapter of the American Meteorological Society, what three things come to mind? Examples might be: the Bulletin, scholarship opportunities, the AMS Seal of Approval, job announcements, scientific publications, resume padding, professional contacts, conferences.	13
2. What interaction does your chapter have with the national organization or other chapters in your area? For example, judging local science fairs, obtaining guest speakers, attending conferences, sponsoring workshops, submitting minutes from meetings.	13
3. According to the members of your chapter, what are the most important benefits of membership in the national organization? (If available, please indicate what percentage of your student members are also members of the national organization).	13 11
4. What do you wish the national organization would do to promote meteorological education?	10
5. What sort of outreach would benefit your members the most?	9
6. Okay, brag a little. What's the coolest thing that your chapter did during the past couple of years?	13