A Study of Advisory Committees Used by ATE Projects and Centers

Final Report (Part A)

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Acknowledgments

BACKGROUND

In September 2001, the National Science Foundation (NSF) made a supplemental grant to Western Michigan University's Evaluation Center (WMU) to further study the advisory committee process as it was being implemented by ATE projects and centers. Of particular interest was the National Visiting Committee (NVC) process used by NSF.

NSF requires National Visiting Committees for all ATE centers and projects larger than $500,000. NVCs are project-specific boards that work with NSF and the projects[1] to provide advice, assess progress, and provide assistance.[2] These committees are required to have national representation. Generally, this means that some committee members are from states other than the home state of the project. The NVCs report to the projects, but they are ultimately responsible to NSF. The project staff suggests names of individuals to serve on these committees, but final approval rests with NSF.

Community colleges, the leading recipients of ATE grants, have a tradition of local and regional advisory committees. In fact, many state and federal programs require them to have advisory committees as a condition of funding. For example, the state of Massachusetts, by law, requires that all vocational education programs have an advisory committee for each program area, besides a general advisory committee.[3]

National Visiting Committees and various advisory committees are used by ATE grantees. Some grantees use NVCs; others use local advisory committees; some use both. In addition, these committees use a variety of labels and operating procedures. There are two general tasks for this study:

    1. To learn more about the advisory committee process in the ATE context, and

    2. To develop procedures that can be used to improve the effectiveness of ATE advisory committees.

In this report, we address Task 1 and outline our plans for addressing Task 2.

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[1] In general, the term "project" is used to describe both centers and the larger funded "projects."

[2] National Visiting Committees. (Undated). Brochure prepared for the Division of Undergraduate Education. Washington, DC. National Science Foundation.

[3] Hanes, F. D. (March, 1987). "Vocational technical advisory committees: A guide to effective utilization." Education Development Center. Newton, Massachusetts.

METHODS

A planning meeting was held in September 2001, and the procedures for the study were outlined in further detail (Memo: Sept. 22, 2001). An updated report on the study plans was prepared in November 2001 and forwarded to NSF-ATE program officers for approval (Memo: Nov. 5, 2001).

The advisory committee study was explained to ATE project directors at the national Principal Investigator's (PI) meeting in October in Washington, DC. A survey was distributed at the meeting to gather information from the PIs about their concerns and experiences with advisory committees. The survey contained five questions, and 26 replies were received—13 from centers and 13 from projects.

An e-mail survey was sent in October 2001 to all ATE projects that participated in the 2001 Web-based survey conducted by WMU. This included 10 centers and 65 projects. The purposes of this survey were to find out how many ATE projects had advisory committees and to determine the kinds of committees they used. Responses were obtained (after follow-up e-mails) from all but one center and one project (response rate of 97%).

The study plan also called for site visits in the fall of 2001 to observe advisory committee meetings. Our initial efforts were unsuccessful in obtaining projects for study. Three of the four sites cancelled their planned meetings, and the fourth decided it did not want to be visited.

Fortunately, the NSF program officers came to our rescue. They sent e-mails to all projects and centers describing our study and asked for volunteers who were willing to host members of our observation teams. These e-mails were sent in January and February 2002.

Sixteen (16) sites were holding advisory committee meetings in the spring of 2002 and offered their projects or centers for our observations. Six sites were selected that had meetings held at times and places that were convenient for our observers. Two advisory committees were meeting for the first time, while the others had met several times.

The names of the six projects and their locations are listed below:

> Northwest Center for Emerging Technologies (Bellevue, WA)
> Agknowledge (Cedar Rapids, IA)
> South Texas Advanced Technology Education Program (Corpus Christi, TX)
> Plasma-Aided Manufacturing Course (Portland, OR)
> Northeast Center for Telecommunications Technology (Springfield, MA)
> West Virginia Associate Degree Program in Information Technology (Charleston, WV)

The first site visit was in Bellevue, Washington on January 24-25, and the final one was in Charleston, West Virginia on April 7-9. The others were scattered across February and March. The site visits were conducted by Arlen Gullickson and Frances Lawrenz; the PI and Co-PI of the ATE Evaluation Project and two consultants, Wayne Welch and Robert Reineke.

A report of the committee observations was prepared following the visit and shared with the members of the observation team. A summary of the findings from these visits is presented later in this report.

Several other activities were carried out for this study. We received and examined copies of committee reports from a half-dozen projects. We also read the projects' reactions to these reports in three of these cases.

We conducted searches of the ERIC database seeking studies that focused on advisory committees, especially those used by community colleges. The first search was done as part of the preparation of the Advisory Committee Issue Paper (Welch, 2001). Robert Reineke conducted a second search in March 2002.

Finally, we had several e-mail conversations with NSF program officers and reviewed several documents about NVCs and their use with ATE projects. We have also had two staff meetings that focused on this study, one in November 2001 and a second in April 2002, as well as numerous interactions by e-mail and telephone.

The preceding activities were used to prepare Part A of our report. They also will be the basis for the checklists we plan to develop to address Task 2. The checklists will be described in Part B of the final report.

FINDINGS

E-mail Survey

One part of this study was to determine how many projects were using advisory committees. Since an earlier study concluded that the usage was not clear,[4] we decided to send an e-mail survey to the PIs asking three questions about their committees.

The sample included all projects and centers that participated in the February 2001 Web-based survey conducted by WMU. To be included in the survey, they must have been active during 2000 and at least 12 months old. The sample consisted of 10 centers and 65 projects. All responded to our survey, except one center and one project.

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[4] Welch, Wayne W. (June 2001). The role of advisory committees in the ATE program. The Evaluation Center. Western Michigan University. Kalamazoo, MI.

The first of the three questions asked if the project had an advisory committee that was specifically created for their grant. Respondents could reply No or Yes. If the answer was yes, they were then asked what kind of committee it was. Finally, we asked them the date of their next meeting. We were seeking sites that would be willing to allow us to observe one of their committee meetings. We also thought that asking for a specific date would help to increase the validity of the question. Having a meeting scheduled is stronger evidence of embracing an advisory committee than merely checking "Yes" to the question, "Do you have an advisory committee?"

All nine centers that responded reported they had an advisory committee especially created for their ATE grant. Eight of them reported they had national advisory committees. The names for their committees varied, but the key factor was that the committees included members who came from out-of-state. One center reported it had a regional advisory committee. It had broad representation from throughout the state, but no members were from outside the state's boundaries. In nearly all cases, the centers were fulfilling NSF expectations to use national committees to provide advice, assess progress, and provide assistance.

We then examined the findings from the 64 projects that responded to the e-mail questions. The responses were placed into five categories. The categories were defined as follows:

National committee:	The project had a committee, and it included members from out-of-state.
Regional committee:	The committee included members from outside the immediate community but not from out-of-state.
Local committee:	Included only members of the local community.
No Advisory Committee:	Included responses such as "not yet," "not now," and "no."
Uncertain:	One site returned the survey but did not directly answer this question.

The percent of respondents reporting in the above categories was:

National committee	38%
Regional committee	14%
Local committee	20%
No Advisory Committee	27%
Uncertain	2%[5]

The frequencies reported above are slightly different from those found in the Interim Report of January 2000. In that report we had an "Unknown" category. It included four projects that reported they had national committees, but when we tried to schedule site visits, the committee meetings were cancelled or postponed. We decided to change their classification from "Unknown" to "National Committee" because, in fact, they did report (on the survey) they had a national advisory committee, although the fall meetings were changed.

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5 Due to rounding, this total exceeds 100%.

We also changed the classification of two projects funded in 2000. After further consideration, we decided to assume that a "not yet" response for a relatively new project should be considered one that has an advisory committee.

Despite the reclassification noted above, the number of projects having national committees was lower than we expected and is contrary to the opinions of the program officers at NSF. We decided to investigate this issue in more detail. We found that the 1998 Foundation guidelines did not mention national visiting committees, yet the 2000 guideline mandated them for centers and projects that had funding greater than $500,000. Because of this, we wondered if the older projects were less likely to have advisory committees.

To test this hypothesis, we divided our sample of projects[6] into four groups; those initially funded in 1997 or earlier (N = 7), those funded in 1998 (N = 16), in 1999 (N= 33), and those funded in the year 2000 (N = 8). We then computed the percentage for each group that had national committees.

The results are shown in Table 1.

<div align="center">Table 1</div>

Year Started	Number of Projects	Percent With National Committees
2000	8	63%
1999	33	39%
1998	16	31%
Before 1997	7	14%

Although our sample sizes are small for 2000 and before 1997, the findings do indicate a greater likelihood of a national committee for the more recent projects. This is consistent with our perception that NSF has become more insistent that ATE grantees have national advisory committees.

We also asked our respondents if their projects had a local or regional advisory committee. Based on our research review, we expected nearly all of the community colleges to have local or regional advisory committees. However, in this sample only 34 percent reported having such a committee.

This finding was puzzling to us. Perhaps one explanation is the way the question was written. We asked if an advisory committee had been established specifically for the ATE grant. It may

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[6] Note that is this discussion we are only referring to projects, not projects and centers.

be that colleges already had advisory committees and used them for the ATE projects. Hence, they did not have to create a new committee for their grants.

However, it may also be the case that the projects just did not have time or the inclination to create a new committee, given all the work required in getting a new project implemented. Whatever the reasons, the use of local or regional advisory committees in these 64 projects was less than we anticipated.

Survey at the ATE Principal Investigator Meeting

We asked those in attendance at the 2001 PI meeting several questions about advisory committees. One question asked whether they had advisory committees. The other items were about the successes and problems they had with committees, recommendations for improvement, and questions they had about the committee process.

The survey contained five questions, and replies were received from 26 project directors, 13 from centers and 13 from projects. This response rate was too low to draw generalizations to all projects.[7] However, we can identify some experiences and concerns that ATE project leaders have about the use of advisory committees.

We asked this group of respondents if they had an advisory committee that they considered a "national" committee. In this limited sample, 22 (85%) of the 26 respondents reported they had committees that included members from outside their regions or communities.

This percentage is much higher than we found with our e-mail survey. However, remember that these 26 were a highly select sub-sample. They were attending a national PI meeting, and they took the time to answer a one-page survey and return it to the chair of the session they were attending. In addition, half these respondents came from centers where we know there is a high national visiting committee presence.

We also asked them what worked especially well and not so well with their committees. This group of respondents was pleased with the actual work committee members did for their projects—for example, donating equipment, hosting interns, and providing scholarship money. They also appreciated the advice they received and the help the committees provided in dealing with difficult administration issues.

Some of their disappointments included the lack of professional behavior exhibited by a few committee members. For example, they would not read materials sent to them before meetings, and sometimes they did not respond to R.S.V.P. requests. Other committee members had to skip meetings because of competing job responsibilities. Sometimes, it was difficult for committee

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[7] We don't have an exact count, but usually more than 400 people attend the fall PI meeting.

members to gain a clear understanding of a project because the committee met only once or twice a year.

We think this latter problem is endemic in temporary committees formed to help with a specific and limited term project. Most projects are complicated and have many activities taking place. It requires a special commitment by committee members to absorb the details of a project. It also requires talented project leadership to effectively describe their work without burdening committee members with a great deal of unnecessary information.

We asked this group of PIs for recommendations on how to improve the advisory committee process. Some more frequently offered suggestions were:

- Use term limits and rotate in new members (4)
- Clearly define their roles and expectations (3)
- Maintain contact with the committee members between meetings (3)
- Have a strong person as the chair, so the committee stays "on task" (3)
- Diversify the committee to include business/industry representatives and graduates of the technical programs (3)

We also asked the PIs what questions they might have about advisory committees. This question elicited the greatest number of responses—more than 50 from those responding to the survey. They fell into three main categories: (1) the structure and function of the committee, (2) the interactions between a project and its committee, and (3) the impact of the advisory committee.

Many concerns were expressed about the organization of the committee—for example, the proper size, meeting frequencies, length of a term, what institutions should be represented, the level of a person from an institution, dealing with members who don't contribute, sample agendas, minutes, reports, and whether members should be paid.

PIs were also interested in learning more about the best way to structure the committee meetings—for example, a single group, breaking into subgroups, and whether some meetings should be held in a closed session.

They were also curious about committee effectiveness. What aspects of a project benefit most from committee ideas? What can be expected from one's advisory committee? Where and how can they be most useful? These suggestions, along with other information we have gathered from site visits and the search of the literature, will be the basis for the checklists that will be developed to help make advisory committees more effective.

Site Visits

We observed advisory committee meetings at six sites—four centers and two large projects. By and large, we found these meetings to be effective for both the project leaders and the National Science Foundation. They were generally well planned, the committee members were a talented

group of people, and the project leaders were responsive to their recommendations. We observed many activities that will become part of our recommended guidelines or checklist. And we observed a few things to avoid.

The review of the site visit reports was carried out in three steps. First, each of the six reports was read to identify comments about the committee process and practices. Second, a list was made of each non-duplicated statement. Finally, the comments were grouped into eight categories: (1) Committee Composition, (2) Purpose, (3) Planning, (4) Agendas, (5) Climate, (6) Materials, (7) Meeting Facilities, and (8) Recommendations.

Findings for each of these categories are presented below.

1. *Committee Composition*

There was general agreement, either explicit or implied, that the key to successful committees is the quality of the members and their commitment to the task. The specific determinants of "quality" were not made explicit. However, ensuring some diversity of members was mentioned, including the importance of having business/industry representatives.

Members with business/industry affiliations were viewed as complementing academic or administrative representatives. It was noted that committee members who view meetings as valuable for them are more likely to actively participate in the process (A caveat to this was that too much personal interest might be counterproductive). Another positive attribute mentioned was that committee members may have valuable contacts that are useful to the project.

The committee chair plays an important role in leading the advisory process. This was particularly true for committees that were beyond the first meeting. Important duties included ensuring participation of members, integration (induction) of new members, and timely reporting to project leadership and NSF. It was also important to follow up on the meetings. Committee and staff turnover, particularly for leadership positions, detracted from committee effectiveness.

The size of the committees varied among the six sites visited, ranging from 7 to 18. There was general agreement among observers that 18-member committees are too large, and that in most situations, 8 to 10 members is sufficient.

2. *Purpose*

One of the most consistent observations of NVC projects was that a clear statement of the purpose(s) of meetings is essential for productive meetings. This is true for both committee members and project staff. The observers commented that meetings should focus on problems and issues, not just accomplishments. Effective advisory committee meetings require a clear understanding by committee members and the project staff of what the meeting is expected to achieve. One suggestion was to frame issues and strategic decisions for committees before the meetings.

There is some concern that the charge to NVC committees to provide advice, assess progress, and provide assistance is too broad. This issue was discussed with NSF program officers, and they do want the NVCs, where NSF appoints members, to serve all three purposes. And they believe they generally do. They also point out that many projects and centers have their own evaluators who mainly serve the project leadership.

3. *Planning*

Careful planning and preparation for committee meetings are essential for their success. Although there was variability in the planning at the six sites, one clear finding that emerged was the amount of material covered. There is a strong tendency for project staff to try to cover too much rather than too little material. Several instances were observed where excessive time was allocated for "show and tell" activities; this tended to bore committee members and take time away from important committee functions.

Presentations and materials used during the meeting should not drain members' energy, take up large amounts of time, or be redundant. PowerPoint presentations should be limited to a dozen or so slides. Presentations should be delivered with the intent of obtaining advice from the committee. It is important to provide activities that optimize the committees' active involvement. Such activities help contribute to successful meetings.

There was agreement among the observers that there is seldom a need for meetings that last more than a day and a half.

The process of setting up a meeting is important in establishing issues and concerns. Some ideas include:

- Introductions of members are important, especially at the first meeting.
- There may be value in having an NSF representative at meetings, particularly the first one.
- Some centers have successfully used students to provide project information in conversations with committee members.
- Setting up "soft-spoken" ground rules for conduct can be helpful in keeping meetings focused (See Climate).
- Limited campus facilities tours may be productive, however, lengthy ones waste committees' time and energy.
- It is important to have some method of recording committee recommendations and comments—a recorder or notes on newsprint sheets. The use of newsprint or flip charts also helps committee members keep thoughts in front of them.
- Supportive statements from the college president may be beneficial.
- Summaries of internal evaluation reports, if available, are usually helpful to committee members.

4. __Agendas__

Meetings that do not have agendas, or have agendas that are too general, often lack focus and run the risk of not addressing important committee functions. It was generally observed that meeting agendas need to be specific enough to help project staff and members address specific issues and concerns. Also, it is important to prescribe a time line for completion of topics.

For the project leadership, agendas offer the opportunity to focus meetings and set priorities to ensure committee participation in the advisory process. Beyond having an agenda, it is necessary that it be followed (with some flexibility). It may be helpful to have a facilitator to help keep the deliberations on task.

Besides allocating time for various topics, agendas also establish the meeting duration. Given the perception by project leaders that there is much material to cover, it is tempting to schedule evening or lunch sessions. However, committee members need time to reflect and converse; lunch and evenings provide time for this. In summary, overly ambitious agendas and those that contribute to member fatigue (such as lengthy evening meetings or presentations) should be avoided.

5. __Climate__

Meeting effectiveness, in part, appears to depend on a constructive "assessment" climate, including the way that evaluative information is given and received. For project staff, this requires the need to remain open to suggestions by committee members and respond openly to their questions (avoid defensiveness). The staff should abstain from responses such as "That won't work here" or "We've already tried that." They should be encouraged to be open to suggestions and thank committee members for their thoughts and advice. For committee members a positive assessment climate means taking a constructive approach when addressing project issues or concerns. Committee members might best be viewed as "critical friends."

Other elements that affect the climate include committee members who dominate meeting discussions and meeting distractions. Such actions limit the effectiveness of the committee and contribute to negative feelings by other members.   Placards on the table suggesting "table manners" (turn off cell phones; is everyone participating, etc.) may be helpful.

6. __Materials__

Materials sent to committee members before the meeting should be manageable (One center sent a total of 100 pages to committee members. This puts an extreme burden on members, most of whom are volunteering their time). Summary "white papers" sent out before meetings can help contribute to a readiness to participate in meetings. Materials sent to members should reach them at least a week before the meeting. Project staff should assume that the committee has read the materials and tailor their presentations accordingly. However, staff should realize that committee members will vary in their inclination (and time they have) to read materials.

7. __Meeting Facilities__

Appropriate meeting facilities increase the comfort level of participants, reduce fatigue, and create a positive image for meetings. Meeting rooms should be set up to be inviting and comfortable, including temperature, refreshments, space, configuration, and quietness. Even flowers on the table add to an "inviting" meeting environment. Attention to lodging and travel arrangements is important. Comfortable accommodations add to the productivity of committee members.

8. __Reports__

It is important, sometimes required[8], that the committees give the project oral and written reports. A critical issue is that they have adequate time to do a reasonable job of discussing issues and establishing recommendations (probably an hour or two). From an agenda standpoint this means striking a balance between time for presentations and discussions and time for committee members to get closure on what the report should include.

All the committees we observed provided an oral report at the end of their meetings. We think this was followed up by a written report sent to the PI.[9] These need to be prepared and delivered quickly, probably within a week or so of the meeting. The number and complexity of recommendations included in the committee report should not overwhelm project staff. It is important to limit the number of recommendations (certainly less than a dozen) and establish priorities for them. It is also a good idea for project staff to inform committee members of their actions and reactions to the recommendations.

NEXT STEPS

This part of our report (Part A) describes what we have learned about the advisory committee process with special emphasis on committees used by ATE projects and centers. A subsequent report (Part B) will present a set of recommendations for implementing effective committees. We have considered several ways to do this, but our current thinking is that we will develop two checklists, one for project staff and another for committee members. We currently envision them as a set of reminders, perhaps admonitions, that should be considered when: (1) preparing for a meeting, (2) conducting a meeting, and (3) following up on the meeting.

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[8] The guidelines for National Visiting Committees require that formal reports be prepared and forwarded to NSF.

[9] We received copies of the formal report at four sites and assumed they were prepared at the other two as well.