Sustainability
Increasing the Likelihood of a Long-Term Impact by the ATE Program

Frances Lawrenz and Nanette Keiser[1]

The Evaluation Center
Western Michigan University
Kalamazoo, MI 49008-5237

Fall 2001[2]

[1] Dr. Frances Lawrenz is the Co-Principal Investigator and Senior Associate, and Dr. Nanette Keiser is the Senior Research Associate and Project Manager of the ATE Evaluation Project. Because of these roles, they were extensively involved in the design, implementation, data collection, and data analysis phases of the survey and site visits. Drs. Lawrenz and Keiser wish to thank Beth Lavoie for conducting the literature review, compiling that information, and reviewing the first draft of this document.

[2] Edited by the WMU Evaluation Project, January 2002.

Executive Summary

Sustainability is the ability to prolong or to supply with sustenance. This straightforward definition takes on a much more complex character when considered in relation to the Advanced Technological Education (ATE) program because of the diverse nature of this program (i.e., operates under several drivers [e.g., collaboration, program improvement] and makes awards to projects and centers). Setting these complexities aside, in a simple sense, sustainability for the ATE program could mean continuation of whatever activities had been supported by the NSF grant, including institutionalization. This is consistent with the definition given for sustainability by the Community College Research Center (CCRC) in their study of the ATE program as well. They defined sustainability as "The state where the major activities involved in the ATE program continue even after the grant expires." Naturally, outcomes or processes that are not successful or of high quality should not be sustained. This places a burden on the ATE *projects* (i.e., projects and centers) and NSF to determine where efforts for sustainability should be focused.

This leads us to consider what NSF's perception of sustainability is and why NSF considers sustainability important. NSF is interested in obtaining the most leverage it can with the money it has. It has been careful to not lead its grantees into expecting long-term NSF support. Most grants have been short term (i.e., 1-3 years), and only recently have longer time frames been considered. The expectation is still that once whatever was proposed is accomplished, NSF will no longer be involved and the continuation of quality outcomes will be the role of others. However, NSF wants to be able to show that its funding produces long term, continuing effects.

The notion of sustainability of *projects* or their effects is not extensively described in NSF documents. There is no single definition of sustainability and those that do appear are subject to change. In other words, what is expected from ATE *projects* in terms of sustainability is evolving. Additionally, ATE *projects* funded earlier are learning about the need for sustainability retroactively.

Because there is no official definition of sustainability, we turned to the published literature, which offered a fairly comprehensive set of elements necessary for successful sustainability. These elements were consolidated into a seven-point sustainability checklist.

Although this literature-based checklist is helpful in defining sustainability in more concrete terms, it may underemphasize the richness of the entities it is intended to represent. Therefore, we constructed a description of an imaginary, successfully sustained project that participates in all the drivers to illustrate what might be reasonable expectations for such a project. To help highlight how this description relates to the checklist, we referenced specific elements within this scenario.

In addition to providing a portrayal of a successfully sustained ATE project, we believe it is useful to determine how the different sustainability checklist elements are manifesting themselves in the ATE *projects.* As a shorthand technique, a rating of the degree to which

the survey and site visit data from the Western Michigan University (WMU) evaluation project show that the ATE program is engaged in each element is suggested below. Each element was rated on a 1-4 basis: (1=seldom evident, 2=sometimes evident, 3=often evident, 4=almost always evident). Additional detail and support for these ratings are provided in the body of the paper.

1. Wide Participation and Clear, Shared Purpose—3 (Often evident)

2. Abundant Information Available and Used to Improve the Program and Reward Effort—2 (Sometimes evident)

3. Abundant and Needed Resources, Resource Mobilization—4 (Almost always evident)

4. Knowledge and Skills/Training—3 (Often evident)

5. Decision Making/Distributed Power—4 (Almost always evident)

6. Coordination with Current Initiatives, Administrative Support—4 (Almost always evident)

7. Use of Promotion and Marketing/Husbanded Resources—2 (Sometimes evident)

Conclusions and Recommendations

As can be seen from the above ratings, overall, the ATE *projects* appear to be making progress toward sustaining themselves in some form after the NSF monies are no longer available. Embedded in these findings is the importance of achieving and documenting concrete steps toward accountability.

Based on data from the site visits and surveys, there is strong evidence indicating that the ATE program manifests 5 of the 7 elements necessary for successful sustainability from our literature-based sustainability checklist. Two elements that we believe need monitoring and improvement are (1) the availability of abundant information and its use to improve the program and reward effort (checklist item 2) and (2) the use of promotion and marketing/husbanded resources (checklist item 7), since there is only some evidence indicating that these elements are present in ATE.

A specific set of recommendations we believe will assist the ATE program to optimize sustainability for its *projects* is provided below. These recommendations are intended to ensure sustainability, however it is defined, by increasing the likelihood that the 7 elements necessary for successful sustainability of any program will manifest themselves in each ATE *project*. These recommendations also address the areas of concern identified for the ATE *projects* under each sustainability checklist item, especially items 2 and 7.

1. NSF should clarify its position on sustainability for the ATE program.

2. If sustainability is to be a major goal of the ATE program, NSF should consider how best to help *projects* achieve it.

3. More attention should be given to data collection and use to identify *project* components that should be sustained, learn how to improve components, provide information upon which to base rewards, and convince others of the worth of the components.

4. ATE *projects* should consider integrating sustainability strategies into their work from the outset through the use of a sustainability plan. Elements of this plan, including implementation strategies and schedules of key milestones (e.g., written commitment from administration), could include the following:

- The ongoing vision and goals
- Methods and timetables for collecting data critical for determining quality, accountability, and decision making, and means for sharing and using this information with key stakeholders
- Identification of and strategies for obtaining additional funding, revenue sources, and other support outside of and/or beyond the time of the NSF grant
- Descriptions of collaborations/partnerships and what the contributions of these partnerships will be in concrete terms
- A depth chart (i.e., list of individuals who could step in when key personnel and partnership changes occur), including contingencies for critical personnel and partnership changes
- A description of the strategies for incorporating the *project* within the institution
- A promotion and marketing plan that outlines the various means to be used to raise awareness and acceptance of a *project* and to update and disseminate its products

5. Assessment of progress toward sustainability could occur at least annually.

Table of Contents