The External Advisory Board (EAB) for the Texas A&M ADVANCE Program met with the ADVANCE Leadership Team, the Internal Advisory Board (IAB), Activity Leaders, Development Staff, and senior faculty members from targeted colleges on June 1, 2011. This report details the findings of this visit and recommendations for future action based on questions asked of the EAB by the ADVANCE Leadership Team.

What are our greatest strengths and how can we play to them in achieving ADVANCE goals?

If we assume that the broadest, overarching goal is to achieve institutional culture change, then the following strengths become especially relevant:

- **Infusion of new faculty in reinvestment process.** The critical mass of new faculty, both men and women, hired in STEM fields, provides an opportunity to build new departmental cultures, especially as many if not all of them will have "grown up" as professionals in a more "progressive culture" than many of our senior faculties. This provides a strong base to build upon in the ADVANCE Program, as long as these faculty thrive and stay at Texas A&M.

- **Breadth and depth of administrative and faculty engagement in ADVANCE.** The IAB and the various activity committees provide for both broad (across various school/colleges and administrative units) and deep (from the top administrators to the faculty on the ground) engagement with ADVANCE, and this will help spread awareness, especially as these individuals talk about the programs publicly. It also will help make specific programs successful, such as the Administrative Fellow Program.

- **Good social science and evaluation plans.** These studies will produce critical data to be used in "teaching" faculty and staff (and perhaps students) about the kinds of implicit gender biases that "naturally occur" even on the part of well-meaning individuals and that make up the key element of a non-constructive culture. There are many people who will need to be convinced that any issues actually exist, and spreading the word on these studies can really help. This is true across a continuum of small (off-hand comments that can pile up) and large (disparities in nominations for awards) issues, and these studies can be very effectively used to raise awareness.

- **Existing programs to build upon.** Rather than being seen as introducing all new programs to the culture of Texas A&M, many existing programs (e.g.,
partner hiring, award and search committee training) can be used as the platform for change and tweaked to work to serve the ADVANCE goals without seeming to force a new regime. This building upon existing programs will help sustainability of ADVANCE culture change efforts.

It will be important to use these strengths very deliberately in planning activities and programs; build them into the culture and use the base of new faculty and widespread administrative support to spread culture change without "forcing" it.

**What are the most effective ways to engage our faculty (men and women) in this process?**

It is important to think of the institutional transformation initiative less as a process or project and more as a change of climate. So the question is, perhaps, better framed as, “How can all faculty be engaged in changing the climate at Texas A&M?”

The ADVANCE grant is primarily focused on providing tangible resources to women faculty in the STEM disciplines to help them succeed — a very effective approach. But what should not be overlooked are the factors that enable the current climate to exist. An important one that the grant team has identified is the attitude of senior faculty, often men, who have benefited from the climate the way it has always been.

The presence of these faculty cannot be influenced by grant activities, but ensuring that women are among the ranks of the senior faculty can assist in diminishing the effects. As a result, in addition to focusing on the junior women faculty hired as part of the Faculty Reinvestment Initiative, it is important to ensure that women are adequately represented within the so-called “white paper” hires.

A second way to address the attitude of male senior faculty may be through their graduate students. While graduate students are not, and cannot be, the focus of the grant, including them in the grant activities can be of value.

The faculty involved in the ADVANCE grant are well positioned to identify other barriers to a change in climate. Some of these mentioned were a lack of child care services; lack of a breastfeeding policy; and inadequate spousal hire policies. Through structured staff and faculty conversations, the grant has identified and is creatively addressing another barrier: the disparate treatment of women faculty by staff.

The primary focus of the ADVANCE grant is the provision of tangible career assistance for women faculty. The faculty team has identified a broad range of benefits, including grant opportunities, leadership opportunities, awards, networking, mentoring, and other supports.
It is important to include a communications plan as part of the ADVANCE grant. First, for an internal audience, there needs to be an ability to advise women of the opportunities available through the grant (which is already being done). Additionally, however, it may be useful to involve public relations staff in external communication efforts, particularly in academic publications, which can fight against impressions that Texas A&M is a male-dominated university and communicate that the institution values and tangibly supports its women faculty.

The Administrative Fellow Program is an excellent resource for women interested in moving up the ranks on the academic side of campus or into administration. Focus needs to be given to what sustained opportunities for leadership women have after they have been engaged in the program. Leadership opportunities should be broadly defined to include administrative positions such as chair, associate dean, associate provost, and other positions; but they should also include leadership of substantive communities at the department, college, and university level.

It is clearly a strength of the ADVANCE grant that so many of the university's top leadership are involved in its activities. Ensuring that all deans are engaged would also have an important effect. Grant faculty can provide presentations at the Dean's Council meetings, but presentations by the deans who are engaged in the ADVANCE grant would likely be more impactful.

One caution for the resources and activities that are being made available as part of the grant is to take care not to overload women faculty with meetings.

Finally, there is an effective partnership available with both central and college development staff. A partnership can foster linkages to alumni who graduated and now work in STEM-related business or industry. These linkages may result in mentoring, corporate or foundation grants, and other recognition.

**What are the greatest obstacles to moving forward effectively? What are the effective mechanisms that will assist us in overcoming these hurdles?**

Changing the cultural norms of an organization is an immense task. It will take years, if not decades. The ADVANCE leaders realize this will be the biggest barrier in an organization that started out with a military focus and no women students until the 1970’s. However, similar universities that were once male-dominated (the Citadel, MIT) have, with strong leadership from the top administration after major incidents, lawsuits or petitions, made great strides in the number, inclusion and comfort level of women faculty and students to the point where these universities are viewed now as relatively women-friendly. It is the EAB’s hope that Texas A&M can learn from these institutions and use the forcing function of the ADVANCE program to change the culture rather than having to suffer the consequences of a lawsuit or other major setback.
One effective mechanism used by the MIT administration was transparency. The then-Dean of Science in 1999 requested a report from the senior women faculty who complained about discrimination. The quite clear report by a number of respected women senior faculty was immediately made public by MIT on the Web (http://web.mit.edu/ fnl/ women/ women. html), was taken seriously by the dean and the president of the university, and was followed up by visible actions to fix the situation, including an increase in salaries across the board, in space allocations for labs, and in the number of women faculty (by a factor of two in a decade) mandated from the top. A decade later, another report was requested and again made transparent: http://web.mit.edu/ news/ office/ 2011/ women- mit- report- 0321. html. Both reports air the “dirty laundry” of the institution but the institution, by making the reports public, and providing a public response that is substantial, is viewed as proactive.

Another major hurdle is the “two body problem” — the necessity of finding an appropriate professional position for the spouse of a potential hire, which is particularly relevant for female faculty members but increasingly relevant for males as well. Here, the isolation of Texas A&M from other major universities and large professional pools makes this an even greater issue. Harvard started a consortium of universities and colleges in the Boston area that provides instant knowledge about faculty and other professional job openings between them and also routinely provides career guidance for trailing spouses, but this may not be enough in College Station.

Here, learning from and possibly replicating the successful spousal hiring program at the University of Michigan at Ann Arbor — also a relatively isolated university with a large faculty — could be an effective mechanism to deal with this. The provost’s office routinely makes available funds to grease the skids in the relevant department for the trailing spouse without taking away the normal FTE allotment of the department. In this manner, Michigan has been able to recruit outstanding faculty members who have several offers from the top universities.

A family friendly workplace, with excellent daycare on-site and the ability to extend the tenure clock for a year for the birth of a child or other major caretaking responsibility, is a major issue for junior faculty. Ensuring that these extensions are the norm is a culture change in an institution in which many junior faculty may be viewed as “not serious” about their profession if they take time off. Here, making the leave opt-out rather than opt-in for all new parents (including males) is an effective way of beginning the culture shift.

What opportunities for creating avenues for change and transformation are we missing? How can we best utilize such opportunities?

The External Advisory Board noted several issues and opportunities that the ADVANCE program may be overlooking. One is the new “white paper” searches
being initiated as part of the Academic Master Plan. The EAB appreciates that ADVANCE activities at Texas A&M have been targeted at the promotion and retention of junior women hired during the Faculty Reinvestment Initiative.

At the same time, we urge Texas A&M leaders to think about ways that ADVANCE programming could influence the white paper hiring process. It would send a powerful message to the Texas A&M community if women were well-represented among the pools considered for these hires. In the short run, this would lead more Texas A&M STEM faculty to review cutting-edge scholarship by women, and also bring eminent women scientists to campus for research talks and interviews. In the long run, this could attract more senior women in STEM to Texas A&M’s faculty, who could then help mentor the junior women hired during Reinvestment. All of this would help to dispel stereotypes that elite science is the exclusive province of men.

Members of the EAB also noticed that Texas A&M ADVANCE may be missing opportunities to benefit from programming developed at other ADVANCE universities. Some committees are developing programs similar to the programs of other ADVANCE groups around the country.

Before generating new content from scratch, we recommend that Texas A&M ADVANCE contact these other ADVANCE programs to ask about borrowing content. For example, University of Michigan ADVANCE has developed a highly effective search committee training program (Strategies and Tactics for Recruiting to Improve Diversity and Excellence (aka “STRIDE Training”); a member of Texas A&M ADVANCE could contact people at Michigan to ask about their willingness to share (http://web.mit.edu/cortiz/www/Diversity/UniversityofMichiganSTRIDE.pdf.).

It is possible that Texas A&M ADVANCE activities are missing some important members of the Texas A&M STEM community — specifically, non-tenure-line faculty, research scientists, lab managers, and post-doctoral fellows. These individuals are important for various reasons: They are present in large numbers and therefore contribute to the climate in many STEM fields; they include early-career individuals who may go on to tenure-track academic science positions at other universities; women often get funneled into these positions; but these individuals often get overlooked by university programming, being neither tenure-line faculty nor students. We encourage the ADVANCE group to think deliberately about these members of the Texas A&M STEM community in their programming efforts and social science studies.

Little of the ADVANCE programming described to the EAB addressed work-life balance, which is one of the key principles of this grant’s Psychologically Healthy Workplace framework. We understand that the NSF did not approve the Caregiver Travel Grants, which would have been highly relevant. We encourage Texas A&M ADVANCE to think about opportunities for the approved activities to help faculty balance the demands of work and family. For example, could this be an explicit focus
of some of the Success Circles, or could proposals relevant to work-life balance be encouraged for the Departmental Mini-Grants?

There are also concerns specific to social science and program evaluation. One that might merit more attention is a lack of coordination of the various survey and interview efforts coming out of Texas A&M ADVANCE. Each ADVANCE sub-committee operates somewhat independently, and does not necessarily know what other committees are planning.

More than one group (and not just the social scientists and program evaluators) mentioned to the EAB its plans to “collect data,” which could inadvertently lead to problems, including duplication of effort across groups, unnecessary expenditure of resources, and creation of survey/interview fatigue in the Texas A&M community (and therefore lower response rates).

To be publishable in top-tier journals, the social science research produced by Texas A&M ADVANCE needs to have rigorous methods, including high rates of response to interview and survey requests. Similarly, methodological rigor (including strong response rates) is paramount with the program evaluation efforts. To make all of this possible, better coordination of the various data collection efforts (including those not involved in the social science and program evaluation) may be needed.

A related concern is that some ADVANCE activities might be taking place before the Evaluation or Social Science teams have had opportunities to develop and implement “pre-testing.” Pre-intervention testing (followed by post-intervention testing) is absolutely necessary to evaluate rigorously the effectiveness of interventions. It requires some time to develop though (e.g., time to develop “pre” and “post” tools to assess change, time to secure IRB approval, etc.). This EAB recommends that the Social Science and Program Evaluation leadership be consulted regularly about the schedule for roll-out of ADVANCE activities, so that they can suggest modifications to that timeline as needed.

To ensure the publishability of this work in top social science journals, we also recommend that the Social Science and Program Evaluation teams think further about comparison or “control” groups. For example, will training participants be randomly assigned to something analogous to “training” versus “wait-list” conditions, all of whom would complete pre- and post-tests (a “Solomon Four-Group Design”)? Having an untrained control group (which could be scheduled for later training) is often expected in research on intervention effectiveness. Likewise, will data be collected in a way that allows comparison to men in STEM, and women in non-STEM fields? These groups may not be the concern of NSF, but journal reviewers often expect them.
What inroads for collaboration should we pursue? How should we reach out to other institutions in a more substantial way?

First and foremost, we must acknowledge that, no matter how successful ADVANCE becomes at Texas A&M University, others will have been successful in parallel or complementary efforts as well. Thus, collaboration with other institutions as they seek to reach the same or similar goals is essential to the program.

The Texas A&M ADVANCE program must seek to communicate its successes (and failures) to a broad audience and to develop collaborations that include two-way sharing of best practices and innovative approaches.

Certainly, traditional vehicles exist to foster such communication and collaboration tactics. These include regularly scheduled meetings between academic affairs and diversity officials of academic organizations of which Texas A&M is a member. Examples of such organizations include the Association of American Universities (AAU), the Association of Public and Land-Grant Universities (APLU), the American Council on Education (ACE), and the Big 12 Conference. Within Texas, the Texas Higher Education Coordinating Board (THECB) provides forums for such exchanges and collaborations. The ADVANCE team should purposely consider these organizations and determine which offer the most benefits of directed communication and collaboration potential.

Frequent opportunities exist for the sharing of progress by the ADVANCE project at selected conferences devoted to the sciences as well as those devoted to enhancing diversity within higher education in general and graduate education/research in particular. Again, this should be done purposefully, based on the nature, size, attendance profile, and focus of available conferences. Communication at such conferences can lead to the identification of candidates for successful and long-term collaborations.

Finally, the ADVANCE team should consider its own role in serving as a convener of symposia or mini-conferences. Such meetings could be by invitation only to insure that institutions with similar goals but, perhaps, different approaches are brought together with the necessary leadership to focus attention on the most relevant issues and to enhance the potential of developing useful collaborations.

Above all, the ADVANCE team must be mindful of the need to be highly selective in forming collaborations. Successful collaborations require intense effort in order to reap the maximum rewards for all partners. No more than perhaps two or three deep and long-lasting collaborations should be pursued. Otherwise, the collaborations can become too shallow and short-lived to be useful to the partners or they may consume so much time that the major purposes of the ADVANCE program are not addressed with the necessary effort and passion.
The External Advisory Board could serve as both a source of ideas for communication and collaboration targets and a reactive body to assist the ADVANCE team in making the best possible selection of mechanisms for communication and opportunities for collaboration.

**What steps would ensure that climate change and culture change are sustained post-NSF?**

It will help to start right away building the "business case" for diversity in STEM as it applies specifically to Texas A&M:

- Reinvestment meant a tremendous investment of university funds in hiring the equivalent of 20% of faculty, in mounting start-up funds, and in creating space. This investment is unprecedented and requires very special efforts to reap the full benefits; this means first and foremost retaining these faculty and nurturing their careers to obtain the full national recognition for them and for Texas A&M. This new generation of both men and women will likely thrive best in a welcoming, collaborative environment, just the kind that ADVANCE is aimed at creating.

- Nationally, there is widespread recognition of the changing demographics of our talent pool of the future — for both students and faculty alike — and women will therefore be key to the innovation culture for STEM for the foreseeable future — Texas A&M needs its share of this talent pool. ADVANCE will help bring that pool to Texas A&M, retain it in good standing, and attract students who want diverse role models. Being on the leading edge of this trend is simply good business, in addition to the right thing to do!

This business case needs to be made often, from the president and provost to the faculty on the ground, and the sooner the better, to set the stage for sustainable culture change.