Executive Summary

Summative Report: External Evaluation for Texas A&M ADVANCE Year 7, May 2017

Sandra Laursen Ethnography & Evaluation Research, U. Colorado Boulder

The final external evaluation for the ADVANCE Institutional Transformation project at Texas A&M College Station offers both a backward-looking summative evaluation and a forward-looking situation analysis. Here I summarize key findings from evidence on two broad questions:

- 1) In what ways has the TAMU ADVANCE Center met the ADVANCE goal of "institutional transformation" around gender equity for STEM faculty?
 - Campus conversations about diversity and inclusion have changed for the better. People with institutional longevity report confidence in the institution's real and lasting commitment to equity, though they recognize that further progress is needed to achieve the desired goals. Ideas about implicit bias offer a useful intellectual structure; strategies to combat bias are widely and actively applied to hiring processes, and are beginning to have influence on other faculty evaluation processes. These ideas have made less impact so far on interactions among individuals that influence perceived workplace climate, but the additional work that must be done to support all faculty is acknowledged.
 - Crucial in achieving this change has been constructive synergy between the programming offered by the ADVANCE Center and accountability structures led by the Vice President and Associate Provost for Diversity (VPAPD). These efforts are mutually beneficial and interwoven in ways that make good use of each partner's different leverage points and opportunities. These synergies have supported changes in discourses and practices within departments and colleges, and have also led to concrete gains in the numbers of women faculty, the visibility of women leaders, and salary equity.
 - o The ADVANCE Center has earned trust from faculty and leaders for its high-quality programming based in sound scholarship and its spirit of faculty leadership and advocacy. The Center's activities offer faculty welcome opportunities to engage on issues meaningful to them and to meet and interact with like-minded colleagues—opportunities that are particularly valued and empowering in this institutional context.
- 2) What organizational assets are in place, and what organizational challenges face the ADVANCE Center, that may influence its sustainability, messaging, inclusion of faculty populations beyond STEM women, and adaptation to future needs?
 - o The Center will be well sustained under the leadership of the Executive Associate Dean of Faculties if good strategic use can be made of this administrative support while retaining and building upon the strong buy-in, support and leadership of faculty to advance important institutional goals to improve equity, inclusion and climate.

The full report gives evidence for these claims and details specific opportunities and needs.

Summative Report: External Evaluation for Texas A&M ADVANCE Year 7, May 2017

Sandra Laursen Ethnography & Evaluation Research, U. Colorado Boulder

1. Overview

The final external evaluation for the ADVANCE Institutional Transformation project at Texas A&M College Station (2010-2017) offers both a backward-looking summative evaluation and a forward-looking situation analysis. I offer evidence-based answers to two broad questions:

- 3) In what ways has the TAMU ADVANCE Center met the ADVANCE goal of "institutional transformation" around gender equity for STEM faculty?
- 4) What organizational assets are in place, and what organizational challenges face the ADVANCE Center, that may influence its sustainability, messaging, inclusion of faculty populations beyond STEM women, and adaptation to future needs?

Question (1) addresses the contributions of individual programs and their combined and cumulative effects on individuals, academic units and the institution. Question (2) seeks to assist the Center in sustaining progress and adapting to new conditions after NSF-supported work has been completed and elements of that work are institutionalized.

1.1. Data sources

For this summative report, I reviewed the project web site, reports to NSF since 2015, and ~30 new reports, presentations and articles from the project. I spoke with the ADVANCE PI, Blanca Lupiani, by telephone in January 2017 and prepared a short memo to clarify goals for the final site visit. I developed a sampling list and interview questions tailored to the particular roles or domains of knowledge of different groups. I reviewed my prior external evaluation reports to identify key concerns and unfinished business on which to follow up.

I made an extended site visit to campus May 2-5, 2017, to conduct focus groups and individual meetings with people in a variety of roles as leaders, participants or observers of the ADVANCE program. During this visit, 88 people attended focus groups and individual meetings; 77 of these were unique individuals and 11 attended more than one session to speak to their dual roles (e.g., evaluation, leadership team). Such broad participation enabled me to assess the current state of change at TAMU with unusual depth and confidence in my claims.

I met with 17 individuals from the TAMU ADVANCE team, in various combinations. Their roles are public and thus they are identified by name and role.

Leaders with formal responsibility for the ADVANCE Center: Blanca Lupiani,
 Executive Associate Dean of Faculties and current PI; Karan Watson, Provost, co-PI and
 internal advisory board chair; Christine Stanley, Vice President and Associate Provost for
 Diversity (VPAPD), co-PI and Climate Change co-chair; Jyotsna Vaid, Director for
 Organizational Development, Research, and Equity in the Office of Diversity.

- Leadership team: Robin Autenreith (co-PI, Recruitment and Retention co-chair), Mary Jo Richardson (Climate Change co-chair), Sherry Yennello (past PI). Drs. Stanley, Payne, Taylor, Froyd, and Vaid are also on the leadership team. Two members were unavailable.
- Internal evaluation team: Lori Taylor, Jeff Froyd, Joanna Lahey
- Social science studies team: Stephanie Payne (co-PI), Mindy Bergman, Kathi Miner, Adrienne Carter-Sowell
- Staff members Linda Stelly and Dea Polk; past executive director Chris Kaunas

I also met with 60 individuals representing participants and observers variously placed to reflect on the role and meaning of TAMU ADVANCE on faculty life and campus climate. To protect the anonymity of their comments, I do not identify their names or numbers in each group.

- Deans from STEM colleges¹
- STEM department heads²
- Faculty and administrative leaders of other campus diversity initiatives
- Faculty participants from several categories, including
 - o Early-career women who participated in programs targeting pre-tenure faculty
 - o Mid-career and senior women who participated in programs for post-tenure faculty
 - o Mid-career or senior women who took on program leadership and other roles
 - o Men who took on program leadership roles
- Additional senior STEM faculty
- Participants in the TAMU ADVANCE dual-career program, collectively representing spouses, faculty, department heads, administrators, and recruiters who used the service

Within these groups, I met with people who engaged with ADVANCE to greater or lesser extents, and who held skeptical as well as supportive views of the Center's work. I also met with groups of early-career and senior women faculty of color specifically.

The interviews were framed by the two broad evaluation questions in Section 1; they were openended and conversational in style. Participants self-identified their contact points with ADVANCE. Guiding questions sought to elicit evidence about the broad evaluation questions:

- What are the successes or the accomplishments of the ADVANCE Center?
- What has not been successful? What do you wish had worked better?
- What are the needs or issues going forward that the ADVANCE Center or its successor could address? What has not been done, or was not attempted, that is important?
- What are the most important activities or features of ADVANCE that need to continue? What would you miss most if it went away?

I probed issues and ideas offered by participants in responding to these questions. I took copious notes and marked direct quotations to ensure that participants' language was captured accurately.

¹ Includes deans with or without title modifiers (associate, assistant, executive, etc.)

² Includes heads and assistant/associate heads

2. Strategic Approach of TAMU ADVANCE

The Center's work was organized around twelve activities that were conceptually clustered under three themes: Recruitment and Retention, Success Enhancement, and Climate Change. Pairs of theme leaders, who were members of the leadership team, oversaw the work of 3-5 faculty committees. Each committee of ~6-12 members was led by co-chairs and charged to identify needs, design, develop and lead the work of a particular activity. Committees also conducted modest formative evaluation of their activities, with help from the Center director, and revised their activities in response. The Center counts some ~150 faculty as advocates who engaged in these ways. The Center's director and staff provided guidance and coordination, recruited participants, communicated with varied stakeholders, and identified and enhanced synergies among activities. As I noted in my 2011 report, this distributed structure offered the chance to establish broad ownership, but required strong coordination and support to ensure coherence.

Each activity is aligned with one or more principles for a "psychologically healthy workplace" (PHW) that address job satisfaction and work environment. The PHW framework was used mainly to justify or motivate rather than design or drive the activities. It serves as a useful uniting theme, because activities related to faculty, staff and students all fit this framework, and because quantitative climate measures were aligned to it.

3. Indicators of Institutional Transformation at TAMU

In this section I discuss indicators of institutional transformation in evidence at Texas A&M.

Some features of institutional context, both current and continuing, are important to acknowledge as background, because they shape what change is possible and important. TAMU is large and hierarchically organized, consistent with its military history. Department heads and college deans have high autonomy, and authority in other areas is formalized through abundant administrative structures. Important leadership changes are underway, as people get to know TAMU's second-year president, and as a provost and chief diversity officer—two highly respected women—return to the faculty. A search for a new vice president for research is underway.

Texas is a state where higher education is highly politicized, and where backlash to diversity is real. Yet changing student demographics are seen as driving increased diversity. While TAMU did not admit women or African Americans until the mid-1960s, now TAMU undergraduate enrollments are approaching the proportion of Latin@ students needed for federal designation as a Hispanic-Serving Institution. TAMU's faculty come from all over the US and the world; some experience challenges due to the geography and culture of the local community. Recent changes allowing concealed firearms on campus have caused some faculty to change their behaviors. The end to NSF funding of the ADVANCE Center represents a risk, as the institution must identify and take on the activities that are important to it, but it is also an opportunity to develop the Center's work in new directions without the constraints imposed by grant requirements.

3.1. Institutional commitment to diversity

The most striking theme in the interviews is the widespread feeling that the institution has made a strong and irreversible commitment to diversity and inclusion—a positive change in the

campus conversation over the past decade that is now "ingrained." A top-down, male-dominated culture is "in our DNA" at Texas A&M, noted speakers, but "ADVANCE has changed the dialogue." Statements that "people are talking about it" were common, which was not the case at past site visits. Previously, said one dean, equity issues had been in the conversation, but in the background: "It wasn't necessarily part of who we are" in the way it is now. "ADVANCE has brought this conversation to the foreground."

Excellence and diversity are intertwined, said one dean, invoking systems theory: "If the sampling space is large, the solution is optimal." "Climate is a topic now, said another leader, noting growing understanding of what factors affected workplace climate and how it could be measured and improved. "There is better communication of these issues to people who can act on them." Such comments were made primarily by senior faculty and leaders with the institutional longevity to observe change over a 7-10 year period; younger faculty did not have the same perceptions. I have systematically observed descriptions of a 'different conversation' on other ADVANCE campuses, as well as their absence, and I take the presence of this idea as widely articulated, yet expressed in individuals' own words, to be a strong and legitimate indicator of cultural change.

Implicit bias was seen as a powerful organizing framework for these efforts. Senior faculty and heads in particular described "heightened awareness" of implicit bias that now enters into institutional processes; others used phrases such as "eyes opened" or "collective consciousness." Awareness is just a start, speakers repeatedly noted, but it is an important start. "We all think it's someone else's problem," noted one speaker, but with the implicit bias lens, "You've found the problem: It's in the mirror."

Growing awareness of implicit bias has fostered an increased demand for tools and strategies applicable in a wider range of settings. This common awareness "makes my job easy," noted one dean, who felt it was no longer necessary to persuade faculty that bias is an issue, but only necessary to figure out how to mitigate its impacts. While not all agreed that the need for persuasion had passed, many were eager for more tools and strategies. "The words [of diversity and inclusion] are more actionable," said one speaker.

Many speakers noted that the institution was progressing faster on gender equity than on equity by race, ethnicity, and other identity characteristics, but they saw implicit bias concepts as applicable beyond gender identity, with appropriate accommodation of intersectionality (emerging as conceptually useful but not yet widely understood). Several speakers gave examples of how implicit bias had transferred from hiring, the context where it was initially introduced at TAMU, to other domains: P&T processes, award nominations, committee assignments, graduate student admissions, selection of seminar speakers. "There are blind spots across all academic evaluation processes," noted one speaker. But speakers also offered local examples of change in each of these arenas. One speaker described how a common awareness of implicit bias provided "cultural and political cover" to discuss reading and writing student recommendation letters. One college was experimenting with incorporating implicit bias into an undergraduate course on professionalism. That said, implicit bias training was not a panacea: "It's a useful tool," said one faculty member, "but some people won't change." "At least we're

talking about it," offered another. "It's a more systematic way of thinking about people: We have language, we see patterns and recognize them."

Overall, a sizable majority expressed confidence that this commitment will remain prominent at the institution. "It's not lip service any more," said one speaker. "It's part of our constant conversations; it's part of our strategic plan," said another. Many located the institution's commitment to strengthen diversity and inclusion with the president, who was seen as "tuned in" and sending "strong signals" through "both actions and words." While some noted the potential loss of institutional commitment as two influential women leaders step down who are both seen as champions for diversity and inclusion (Drs. Watson and Stanley), many felt that this commitment was secure because the new provost and VPAPD will be "sandwiched" by the deans and the president. "The deans will expect to be held accountable," as one person put it. Indeed, heads and deans described various accountability mechanisms at the institutional and college levels that help them keep this issue in the foreground (see also 3.4).

Some leaders reported that the institution's diversity commitments were also becoming visible outside TAMU. They described positive feedback from audiences at Southeastern Conference meetings, the National Conference on Race & Ethnicity in American Higher Education (NCORE), and in their disciplines. One speaker described presenting at NCORE: "If we can do this in agriculture at A&M, anyone can... no excuses!" Another had been asked what is TAMU's "special sauce." The local Climate Matters conference was cited as an example of sharing good ideas and encouraging further progress.

3.2. Workplace climate

While senior faculty felt encouraged by the improvements they saw to knowledge, awareness and moves toward action across the institution, intentions and commitments are not enough to change work environments. A generally positive experience of workplace climate was not yet reported by pre-tenure faculty, who understandably have a narrower, more department-based view of the institution, nor by all mid-career women, particularly in fields where they were still few in number. Organizational culture is felt in and driven by daily conversations, and these daily events differ for people in different settings or different roles. TAMU's climate survey data also corroborate the variation of local climates among colleges and departments.

Climate surveys are a blunt instrument for detecting climate change, but some indicators of mild improvement in climate appear in the evaluation team's reports on the most recent climate survey (2015). For example, faculty women no longer reported systematically lower levels of job satisfaction than did their male peers. Women did report higher levels of burnout and lower levels of career satisfaction than their male colleagues. Even very robust ADVANCE programs have observed climate to change slowly, requiring a decade or more to detect improvements widely (Flaherty, 2014; UM ADVANCE, 2013).

Cultural shifts, probably unit-specific, around work/life integration were reported by some interviewees. "It's OK to have a life. It's OK to be a happy academic." Examples offered included "easy" access to an extended tenure clock for faculty parents; men feeling more free to take parental leave; increasing use of telecommuting and flex time for dual-career couples. Some

felt that perceptions of service had shifted to recognize that much service is in fact leadership, and to view leadership development as useful in many context, not just for administrators—but these views were not widely expressed. The most recent climate survey data (2015) show that women still report higher work-family conflict and lower perceptions of organizational support for families than do men.

3.3. Support for women faculty

While for most, workplace climates were still a work in progress, many women participants in ADVANCE did describe a sense of increased support for them as women faculty. STEM women described the challenges of being one of few women in their departments, but also challenges in the local community, such as being seen as unusual at their child's school because they worked outside the home. "Every place is a man's place—the default is male," said one speaker, so it was important for women to have their own space in ADVANCE. This presence is "reaffirming" said one; it it is helpful to see we have some common problems and "not to internalize and stew over things," said another.

No single program is responsible for this sense of support; rather, it results from a suite of formal programs and informal interactions sponsored by ADVANCE. For pre-tenure women, ADVANCE offered support through the Roadmap workshop, Success Circles, and the ADVANCE Scholars program. The Roadmap workshop was valued for the chance to "hear different narratives," and for making career planning and success explicit and visible, "a counter to what you don't hear." Participants valued the contacts they made both among peers and senior colleagues: "The provost knows who I am now." Success Circles were not a stand-alone success, but there were notable exceptions, including a moms' group and writing-based accountability groups that had spun off from Patricia Goodson's well-received POWER writing workshops. The ADVANCE Scholars program was viewed as highly successful, a modest investment for a good return, and was a locus of strong support for pre-tenure women of color (see 4.2.5).

Formal support for mid-career and senior women was more limited. A handful served as Administrative Fellows (see 4.2.7). Tenured women commonly reported finding meaning and making connections through ADVANCE workshops, women heads' lunches, or activities supported by departmental mini-grants, or through participating as workshop presenters or activity committee members. This may explain the evaluation team's findings of positive associations between a department's participation in ADVANCE committees and women's improved job satisfaction and reduced turnover intention (Taylor, Beck, Lahey & Froyd, 2017).

Senior women of color also described a strengthened sense of support. Building connections through their work with the ADVANCE Scholars had been important and encouraging. Working with ADVANCE has been "a constant renewal of my courage," said one. "I am free to champion the causes I choose." ADVANCE is a focus for us, said another—"they can find us" here.

The common thread here is not the impact of a particular program, but the consistency with which women noticed and remarked upon the value of giving and receiving support from other women, through connections that the ADVANCE Center had helped to initiate and nurture. "The small pieces add up," as one speaker put it.

3.4. Women's visibility in leadership

Many people remarked on the high number of women deans at TAMU now. Some noted that the women's presence in leadership and supervisory roles extends beyond the colleges to include academic affairs, student affairs and HR. Diversity in leadership was felt to be important because people with different experiences will see different issues and bring different ideas. "When all are at the table," said one leader, "we make better decisions." Because the women connect and collaborate, noted another, they are more informed than the men. ADVANCE has touched many of these women, noted one speaker: TAMU is "promoting our own into leadership."

Speakers made clear that ADVANCE was not responsible for this change; rather its presence worked synergistically with other forces to set a campus-wide expectation for strong women in leadership across the university. "Women faculty saw people at the helm giving signals" that they take diversity and inclusion seriously, said one leader. This influx of women leaders has made a "lasting stamp" on TAMU, one speaker noted. "It changes your mental model of who is a leader, who is a faculty member," noted another. "Ten years ago, women were not deans in science here. Now you look and say, 'I could be that,'" said a third. Because of implicit bias and imposter syndrome, women may need "explicit encouragement" to develop skills and compete for leadership positions. "We rely on ADVANCE to encourage women to excel," said another.

Overall, gains in women's visibility have been significant, but others cautioned that there was work yet to do on the numbers at TAMU. Women's numbers are up at all faculty ranks, but women are still only 13% of full professors. "We do less hiring of our own" graduates, noted several speakers, but there is room for improvement in hiring, especially in senior hires, where accountability procedures for equity in the hiring process have not been routinized. It is also important to recall that underrepresentation is a signal of a problem, but its absence does not mean the absence of a problem. That is, while low numbers of women in an institution may signal that hiring or advancement processes are inequitable, numbers that reflect women's presence in a field do not mean that they are treated well and their contributions are valued.

3.5. Interweaving of institutional accountability structures and ADVANCE activities

Speakers described the work of the ADVANCE Center as woven together with that of the Office for Diversity. One crucial linkage between them is the annual diversity plan prepared by all colleges and other units with at least 50 employees, which must address three central topics: accountability, climate, and equity. These plans are reviewed by the president, provost, and VPAPD, and budget allocations are awarded to units that demonstrate progress, thus the plans function as important accountability structures for colleges and departments. The other crucial linkage is Christine Stanley, who leads the Office for Diversity and has been an ADVANCE co-PI and leadership team member since the start of the grant. Dr. Stanley and her team were commended as proactive and effective at engaging faculty. Their attention to defining goals, terms, and processes and to providing robust scholarly grounds for action is also noteworthy.

These two efforts worked in synergy because ADVANCE provides a platform for specific programming, training, and facilitation activities, while the Office for Diversity can support, advise and advocate, as well as hold accountable. "People look to ADVANCE" for help in

collecting information for their reports, and for programs to help them solve problems. In this way, said one dean, "ADVANCE brings resources to address the problems we identify through data and accountability" structures, and the Center's programs are utilized as units take action.

Moreover, said another dean, if we tried to implement ADVANCE without the diversity office, it wouldn't work. But due to the institutional accountability structures, "You don't have to sell the [equity] concept here." The ADVANCE Center and the requirements for unit diversity plans started at about the same time and grew in parallel; their interconnection was not necessarily designed or fully anticipated, but have become apparent with time and experience. "ADVANCE is the car and the diversity office gives the road," said a dean. If we tried to drive the car over unpaved terrain, "it would be a rough ride."

Deans also deployed their own accountability structures within colleges, such as requiring search committees to go through a STRIDE training (which occurs in several colleges), departmental climate plans, and others. As one dean put it, "I try to set up systems that make people want to do things." Accountability structures also provide some cover, especially for heads who may be dealing with resistant faculty. If I have to require faculty to attend a training, said one head, "It helps when the dean or the provost makes me do it." Others commented that accountability must be balanced with rewards: there are "not enough carrots" for units that have a historically better diversity record than many STEM units and therefore have less room for dramatic improvement.

3.6. Data gathering and data use

Heads and deans spoke to the value and use of the climate surveys and salary data that have been gathered and promulgated through ADVANCE. "When you start to measure, it causes attention," noted one speaker. While some of these data had been gathered previously, speakers described the climate data as having "more substance" now. There is clearly greater availability and use of the data now. Heads appreciated being able to "drill down" into the climate data to identify concerns and improvements in their unit, and being able to raise concerns with their departments without singling out individuals. Salary data were seen as "substantive data" to see "what is out of whack" and make decisions. Indeed, decisions have been made: the internal evaluation team finds that there are now fewer systematic differences in the salaries of men and women. While there are some gender discrepancies at the top end of the salary scale, there are fewer anomalies at the low end as "low-hanging fruit" inequities have been remedied.

While some heads have been pioneering in their use of data, others seek more help (effective data use would be a good topic for a heads workshop). They were interested in longitudinal tracking and would like more qualitative data from climate surveys and other sources. Institution-level improvements already made to practices for gathering and maintaining space and startup data are commendable. A few speakers mentioned the tension between research-level scholarship and management needs, and hoped that data could be better honed to their management needs in the post-grant period.

3.7. Professional advancement

The social science studies and evaluation teams have been active in contributing to campus discussion of data but also are contributing scholarly findings in disciplinary conferences and

peer-reviewed journals, and TAMU has been well represented at national convenings of ADVANCE investigators. Several team members have received awards, promotions, or tenure during the grant period, based in part on work done on this project. I do not detail these outcomes but point them out to acknowledge the substantial professional achievements of the team that influence and make visible the ADVANCE Center's work.

3.8. The ADVANCE Center fingerprint

I identify consistent strengths of the ADVANCE Center's operations at large. Taken together, these constitute the Center's fingerprint, the features of its working processes that are distinctive, separate from its programs, and shaped by its distributed organizational structure.

Most significantly, the Center is seen as "peer-driven and organic, faculty helping faculty." As faculty advocate for one another, a sense of community is created: "We're in this boat together, and we know how to help you." It becomes a space where women and their allies work together to identify what are the issues and what to do about them. As a result, ADVANCE is trusted; it has a "positive brand, and faculty participate because of that." The opportunities created here for informal faculty leadership—a type of self-governance—may be especially valued on this campus where formal administrative structures are strong.

Within this overarching theme, other characteristics of the Center's work stand out:

- o Scholarly underpinnings, made manifest in strong use of the research on implicit bias, explicit valuing of women's scholarship, and effective data-sharing
- Use of interactive learning strategies such as discussion and role play; explicit building of collegial connections
- o A can-do attitude, willingness to "take an idea and run with it"
- o Hospitality toward participants as whole people: warm and welcoming staff members, snacks at meetings, a play space for children at the Center offices

The Center has a strong sense of purpose and service to important institutional goals:

- Faculty retention: "Happy faculty will stay at TAMU," noted one speaker. Women faculty used to be a "revolving door." Searches are expensive and disruptive and STEM startup is costly, so doing these things repeatedly "adds a lot of friction to the machine." We want to go from "survival mode to flourishing," noted another.
- Student development and retention: Student experiences matter, and the faculty experience feeds the student experience. Students become alumni, who become legislators, donors, and social influencers; what they say shapes TAMU's reputation outside. Students also look to faculty and staff as models for who they can be and how to behave, so it is important for them to see and learn from diverse people working together effectively and respectfully, and to take these lessons along with them into the wider world.
- Institutional leadership: ADVANCE is seen as a "turning point" in the institution's commitment to the success of women faculty. It's important for a state flagship institution to lead efforts that strengthen retention and success of diverse faculty and students.

Speakers found value in the ADVANCE Center as an organizing presence or "nucleus," beyond the continuation of specific programs. The Center has centralized momentum and nurtured synergies and spinoffs. "There is a nebulous but positive value from all of it together," noted one speaker. It is important to have "people, and the ambition to move the dial—because we're not done yet," said another. While speakers felt in general that the ADVANCE Center could engage with a broader portfolio of faculty issues, they did not want it to "roll back" or lose focus on women and the glass ceiling.

4. The Future of ADVANCE at TAMU

In this section, I analyze the impact of ADVANCE at TAMU in light of its possible futures. I consider the value of different activities initiated under ADVANCE, other issues and needs that would benefit from attention going forward.

4.1. What activities are essential for ongoing impact?

The Center's activities have been described in detail in my prior reports, and by the TAMU ADVANCE team. Here I focus on the value of specific programs for the future, summarizing evidence about their contributions to the outcomes discussed in Section 3 and making recommendations about next steps that will protect and share the gains made to date. Many activities currently offered to STEM women will benefit women in all fields, as well as members of other groups underrepresented among faculty and leadership roles in higher education.

4.1.1. LEAD workshops for department heads

"Anything we can do for heads is important," said one dean. Because heads set the tone, communicate expectations, and control resources, heads need awareness of issues, a toolkit of strategies, and training to develop and practice needed skills (Laursen & Rocque, 2009). They are crucial leaders in owning responsibility for diversity that then leads to real behavioral change (Stewart, Malley & Herzog, 2016). Department heads widely endorsed the value of the LEAD workshop sessions. Workshop strategies that were seen as effective included strategies to infuse peer leadership into these sessions (as speakers, panelists, facilitators), to incorporate equity data, knowledge and strategies whenever pertinent to heads' duties, and to include active learning strategies such as role play and discussion (Austin & Laursen, 2014).

Recommendations: Continue to develop department heads' leadership capacities and deep understanding of diversity and inclusion. Given TAMU's large size and the high autonomy of department heads, working to develop their leadership skills is essential to sustain. This program is well located in the Dean of Faculties (DoF) office. Beware of allowing these activities to devolve into purely didactic formats; the most impactful strategies will make use of experienced heads' expertise and build in peer-to-peer conversation. Likewise, a focus on issues and strategies, not solely procedures and compliance concerns, will enable workshop sessions to be well received and effective.

4.1.2. STRIDE workshops for search committees

STRIDE is widely credited with fostering faculty engagement with ideas of implicit bias, a powerful understanding campus-wide (3.1). Interview data indicate it is also having a specific

positive impact on search processes and outcomes, as does evidence gathered by the social studies team. "It has changed the way our college does searches," said one dean. Indeed, several deans now require STRIDE trainings for their college's search committees and see it as an "important and very useful resource." STRIDE is seen as influential because it is delivered to and within departments, and because it "goes beyond compliance and HR issues" to provide tools and processes that help to recruit and attract excellent faculty. Implicit bias is a key topic, but it is also crucial to address ways to build a diverse pool and attract top faculty (see 4.1.3; Laursen & Austin, 2014b). Some comments reflected an improved self-image as faculty began to understand how diversity couples to excellence and saw their units as able to effectively compete for excellent faculty, less dependent on "hiring our own" graduates. Beyond these specific

While it is good for administrators to incorporate implicit bias into formal trainings for heads and search leaders, faculty leadership on this topic is also vital. Indeed, Michigan's original model highlights the engagement of well-respected faculty opinion leaders who become "organizational catalysts" (Sturm, 2007a,b). TAMU STRIDE leaders noted that studying the research with their cohort had been personally powerful, helping them to see and act on other opportunities to advocate for inclusion. Many cited extension of implicit bias ideas to P&T as an important next step. This is low-hanging fruit given that a pilot program was already developed for COALS.

Recommendations: Continue STRIDE training as a priority activity crucial to sustaining and furthering the gains made to date; it is well placed in the DoF office. Re-engage past STRIDE leaders and make a plan to meet the demand for trainings for 2017-18 searches; do not allow a gap in trainings to develop. Engage a new cohort who can prepare to provide and update STRIDE trainings and adapt the messages for other contexts, such as P&T, or for staff who support searches, as Michigan has developed. The plan for STRIDE's future must include attention to how work as a STRIDE leader counts for faculty participants. Resources will be needed to support cohort leadership and participation, and staff support for communicating, scheduling, preparing materials, etc.

One leader suggested a workshop model that combined DoF training with the STRIDE workshop: first providing essential procedural information from the Dean of Faculties and then engaging faculty facilitators to lead collegial discussion. This approach may be efficient for search committees while retaining the influence of faculty as organizational catalysts.

If feasible, analyze the impact of STRIDE training on actual search outcomes. Other work has shown the impact of such programs to be significant (see e.g., Smith et al., 2015; Carnes et al., 2015) but local evidence is always more persuasive.

4.1.3. Assistance for dual-career couples

Assistance with placement of partners and spouses for dual-career couples was widely seen as a necessary complement to the STRIDE workshops: Implicit bias training helps faculty to evaluate candidates more equitably, and dual-career placement assistance helps attract the best candidates to TAMU. Because women academics (in STEM and other fields) are more likely to be partnered with other professionals, this is a particular asset for recruiting women, and it is especially important in TAMU's geographic and cultural context (see Laursen & Austin, 2014b).

Heads shared examples of hires made possible by placement assistance for both academic and professional spouses; one described to me with glee her success in hiring not one but two candidates from CU Boulder. "It is used to be an exception, but it is now the standard" for universities to have support for dual-career hiring. "It is almost necessary," said one head. "It *is* necessary," corrected another. There will be "an uproar" if this program goes away, noted a third. Speakers commended the president for increasing the net resources available for hiring academic partners, but noted still greater resource needs. Department heads seemed to understand their autonomy in these decisions—"I don't want to second-guess their decision because I don't want them second-guessing ours"—but noted that attempts to place an academic partner can make for "tricky conversations" if the partner is not ready to succeed on the tenure track. Navigating these issues may be a good workshop topic for heads.

The program has enhanced awareness of dual-career placement as a recruitment and retention tool. For recruiting, "it has value just to say we have it," noted a head. For retention, heads recognized dual-career policies as important in keeping "poachable" faculty. When our women and minority faculty are successful, said one head, "Other universities come after them hard." On the faculty side, placement help for a partner signaled to faculty members that the university saw and valued their contributions. By increasing the transparency of dual-career negotiation, departments have more equal access to such opportunities. It has also served to diversify other units that have hired a partner, such as in university IT.

Centralized staff assistance with the mechanics is highly valued; it would be both inefficient and ineffective for units to undertake this separately. Dual-career coordinator Dea Polk is seen as an asset, well-respected for her responsive attitude and proactive networking with departments, community employers and non-academic units on campus. Job seekers valued her energy, personalized help and emotional support through a job hunt. Because TAMU is so large, opportunities for on-campus employment in non-faculty positions are significant, and I heard success stories from both employers and employees in these situations. (Despite Polk's outreach efforts, some heads were not aware of non-academic placement services; demand will only increase as people learn about this office.) Polk has identified and tried to assist with partners' needs for coaching, which is particularly keen for international partners. She carefully tracks her activity and has a good record of success so far. As the program's popularity expands, she may need more help on routine follow-up and data tracking.

Recommendation: Initiate strategic planning for this program in collaboration with the offices of the DoF, the Provost, and the VP for Human Resources and Organizational Effectiveness (HROE). This program is important, valued, and squarely fits under the DoF umbrella. It requires substantial investment but also reaps high benefits in multiple domains.

To support such planning, accelerate efforts to gather data on the program's effectiveness. Both institutional clients for this service and the staff who provide it need clear signals about what to expect. Re-creating Ms. Polk's expertise and network of connections would itself be costly.

Explore ways to fill a gap in the current arrangement, the lack of a liaison to searches who can answer questions confidentially and provide information on dual-career programs and other

topics (see Laursen & Austin, 2014b, also 2014a). Knowledgeable department heads had used the ADVANCE Center director in this way and found it useful to know early if dual-career issues would factor into their top candidate's decision. Montana State's Family Advocate program offers a strong, evidence-based model for this role that includes meeting with faculty job candidates as well as other functions.

4.1.4. Faculty recognition

Work by ADVANCE has raised awareness of how implicit bias affects faculty awards and thus shapes perceptions and paths for women's advancement, and has produced analyses and resources useful for those taking this work forward. The appointment of a new assistant provost for faculty recognition, Evelyn Tiffany-Castiglioni, who has been active in ADVANCE, offers a chance to integrate attention to implicit bias into efforts to elevate TAMU faculty's national visibility. In this way, ADVANCE work may be taken up within institutional structures.

Recommendations: Make use of existing materials from this activity committee in choosing and preparing selection committees for awards overseen by the DoF, and distribute this material passively on the DoF website and actively each year to units and informal groups that give awards. Cooperation with Dr. Tiffany-Castiglioni, who has been active in ADVANCE, and coordination with STRIDE leadership to update or customize materials and award committee training, will be valuable.

4.1.5. ADVANCE Scholars

ADVANCE Scholars is a signature program that has already been expanded to all the colleges. This program is important because it helps pre-tenure women faculty of color cope with the extra challenges they experience in their faculty roles, such as high informal service demands and everyday incivilities from faculty colleagues, staff and students. "These are strong women, high-performing women," said one advocate. "But it's good to have people in your corner." The program has made a difference for both Scholars and their advocates. "I see people being successful who might not have been" without it, said a Scholar. It has been "great for them, great for me as an old white man," said an Internal Advocate.

Features of the program that explain its effectiveness include

- Periodic half or full-day retreats for Scholars as a group offer check-ins and "speed mentoring" sessions that build connections and camaraderie, offer a safe space for conversation, give Scholars a reality check, and normalize (some) challenges.
- Early-career faculty are paired with a top scholar, not a top woman scholar or top scholar of color. Speakers shared examples of how Eminent Scholars had helped Scholars with publications, grants, and visibility in their field. Internal Advocates help in choosing those external mentors. "Some aimed too low initially—we helped them aim higher."
- Internal Advocates give context-specific advice on "how to be strategic, how things work. The advice from my Advocate wasn't different from my department's advice, but I could hear it better"

- The program's intersectional approach is key to its success. Faculty of color have played important leadership roles. Meeting as a group of Internal Advocates was satisfying for tenured women of color and enriched their sense of belonging at TAMU. White male Advocates described their own learning and were observed by others to be strong allies.
- Careful formative evaluation has documented program benefits and offered advice to deans.

Interviewees discussed the benefits of the Scholars program as two-fold: "changing individual lives, changing the face of the university" for students and colleagues. Faculty turnover is costly, so this is a proactive investment in retaining young faculty that departments have already recruited. There is good symbolic and recruiting value in highlighting the program to potential new hires and including it in start-up packages.

Indeed, the success of the Scholars program means that there is demand for the program from groups it did not initially serve, including white women and men. Scholars were eloquent in explaining why the program had special relevance for them as women of color.

[As new faculty,] we walked into a situation where we were told, 'We don't mentor. We don't want to mentor. Why do you need a mentor?' ... [As doubly marginalized women,] we were the most vulnerable—but we had no power. So it becomes our problem. It is first assumed that we don't have the tools, then we are told that 'women failed here' because they didn't use the tools the right way to achieve success according to metrics that someone else set. But we got hired here; we are already competent and capable. We don't fail because we 'don't get it.' [This perspective doesn't recognize that] the job itself is different for me. [emphasis in original]

When men leave, they are seen as leaving for greener pastures. They are visibly mourned. When women leave, they are seen as having failed.

[In my department] there is no mentoring; there is active resistance.

There is friendly fire: your advocates and your saboteurs may look alike.

Some people have invisible advisors, and that is fine, but those names aren't on the papers—so it looks like they got to where they are through solo effort. Others don't have that invisible support.

Ask us why we succeeded! It is not because we were afraid to fail.

For these reasons, respondents felt it important to retain the program's focus on women of color, to serve "people who don't have other tools," "who don't have the access already." Because the academy is "not gender neutral," safe spaces are needed. "Until we get everything fixed, we need these programs" for faculty from underrepresented groups, noted one speaker. Indeed, the success of the program had highlighted additional needs: while the program assists faculty of color to navigate through the system, some feel undervalued after gaining tenure. Speakers recognized needs for reward and recognition for newly tenured women of color, and argued that this too is an appropriate and modest investment to retain these faculty. I see that superstars are rewarded, said one Scholar, and "when I look in the mirror, I see a superstar."

Recommendations: Continue the Scholars program. The current model looks to be sustainable, with college deans' investment to support Scholars' travel and professional development expenses, and the support of the Office of Diversity to convene Scholars and mentors. Faculty-level support is required to drive the program and provide accountability by recruiting and preparing internal advocates, instigating and planning gatherings, and prompting Scholars and advocates to make contact. Good coordination with the DoF office will help to align the Scholars program with other efforts and clearly communicate its special mission.

Explore ways to adapt the Scholars program without risking its valued outcomes for women of color. It may first expand to men of color from traditionally marginalized groups. Another suggestion is to provide guidance and encouragement for deans to support (as part of start-up) all early-career faculty to interact with an Eminent Scholar, but to centrally support internal advocates and create affinity groups for scholars from groups that are marginalized in academe.

Complete the planned publication on TAMU's ADVANCE Scholars program. Extract a short summary of program outcomes for the website, because it is a useful model for other institutions.

4.1.6. Support for pre-tenure faculty

Faculty development for early-career scholars protects the university's investment in recruitment and startup by fostering early success and satisfaction and connecting them to peers and senior faculty, yet TAMU has few such offerings. Thus the Roadmap workshop and other supports for pre-tenure faculty are important and distinct from new faculty orientation, even if the workshop does not serve the hoped-for purpose as recruitment tool.

Recommendations: Continue the Roadmap workshop for local audiences. With faculty colleagues as presenters, the workshop is relatively low-cost and can be opened to all early-career faculty, yet with particular attention to inviting women and fostering ongoing connections among them. Strategies such as inviting new hires to attend the year before they start at TAMU (at departments' cost), or including the program in their offer letter, can add value for departments and leverage the workshop as a recruitment tool. Postdocs can be included for little additional per-capita cost. A faculty-level organizer or planning committee and staff support will be needed. It is important that the workshop feature a diverse slate of speakers.

Writing is an essential faculty commitment that underpins advancement, so strategies to develop good lifelong writing habits should be emphasized and reinforced. The POWER writing program appears to cover this base very well at TAMU, as long as faculty-level workshops can be supported. By encouraging formation of writing accountability groups, writing workshops can build supportive networks among women faculty, both pre-and post-tenure.

4.1.7. Administrative Fellows

This program is seen as opening doors for women to enter formal leadership roles. It had high value for its participants, which the social science studies team can document from their extensive interview data. In my interviews, participants noted a variety of benefits: managerial training and experience; networking across campus; a boost to their résumé. They described becoming more aware of faculty issues and of women's opportunities, and thus became stronger

advocates for women. Participation also changed perceptions in showing women the positive reasons to be an administrator—the job is not just handling problems or crises.

The program has also had notable institutional impact, as surprisingly high numbers of Fellows have moved into leadership roles, most in campus administration, and are moving up the ranks. One secured a deanship at another institution, and one returned to her department to pursue promotion. Their success appears to have diminished negative perceptions noted earlier. The program aligns with institutional needs and directly supports mid-career women directly—a group who often feel stuck or stalled in the academy—and TAMU's program has solved some problems that have hampered similar models elsewhere (Laursen & Austin, 2018).

These outcomes suggest that it is worthwhile to continue this program in some form, to develop interest in and skills for administrative roles, and to offer a leadership development path outside the department. "It's important for people to have the chance" to try on this role, because in some units, lack of inclusion in informal networks reduces women's access to department-based opportunities to develop leadership and move up through the ranks. While a small number of women benefited directly, their success has had outsized symbolic value (3.4).

Recommendations: Explore ways to continue this program under a cost-sharing model. At least one college is hosting a similar "faculty fellow" on its own; some offices hosted a Fellow without ADVANCE funds for salary, and TAMU hosts SEC ALDP Fellows. There is benefit to preserving a focus on providing pathways to leadership for women and members of other groups who are underrepresented in academic leadership. Co-funding incentives might be used to support members from these groups without excluding others.

For Fellows funded by any mechanisms, continue to convene them as a group to reflect, troubleshoot and hear from senior administrators in different parts of the campus. This type of organizational support adds value by deepening understanding of the institution and building supportive networks.

Document individual outcomes, their relationship to institutional outcomes, and key program features in a short white paper that can be used to communicate with potential Fellows and potential sponsoring offices. Share the white paper on the ADVANCE website so that other institutions have access to lessons learned at TAMU. The paper need not duplicate the useful practical details already documented on the Center website.

4.1.8. ADVANCE speaker series

Interviewees reported several ways the ADVANCE speaker series added value beyond regular departmental talks, by bringing external visibility to TAMU and to individuals (especially early-career faculty) who hosted a speaker, and making connections that departments could draw upon in other contexts, such as external reviews. However, it was cumbersome to run this centrally.

Recommendation: Capture best practices from the speaker series for elevating women's visibility in the disciplines, and disseminate these practices to those who organize seminars for departments and colleges or plan named lectureships, both passively on the website and actively

through an annual mailing. The activity committee who ran this program can be invited to document this program for long-term benefit within and beyond the institution.

4.1.9. Faculty and staff climate improvement

FASIT is one of TAMU's most innovative programs in examining the role of staff in faculty experiences of the workplace climate. The design team's collaborative qualitative analysis of focus group data was distinctive in shifting the program's goals from initial expectations and shaping a data-driven design. FASIT was described as "underutilized" yet "enlightening" for faculty and providing an important "morale boost" for staff. It had clear benefit to those who took part, generating better mutual understanding of roles and more respectful relationships. "I thought the staff were happy," noted one faculty member, "but I learned they were silent."

It is less clear whether, when and how this program had broader impact on departments beyond the FASIT teams, and whether the project-based model, reported as cumbersome by some, was essential. Social science team members observed that, though faculty-staff interactions influence workplace climate for both groups, the program is more influential for staff than for faculty; faculty reports of the incidence of incivility from staff are lower than from administrators, faculty colleagues, or students. TAMU's hierarchical culture exacerbates these concerns, and little else is done organizationally to address faculty-staff interaction. It has been a hard period for staff, with layoffs, major system changes, and outsourcing of jobs; staff morale is understandably low and FASIT struck a positive note for participants. Thus FASIT offered some benefits, but did not have the impact on faculty climate postulated in the original proposal.

Recommendations: FASIT does not cleanly fit under the Dean of Faculties' purview, yet is likely to lose credibility with faculty if it is moved entirely to HR. Conversation with the new VP for HROE should be pursued to determine which if any elements of FASIT may be transferred, adapted, or incorporated into other efforts. Staff awareness of implicit bias is important because they are often a first point of contact for students and parents, confidants and role models for students; the workshop components of FASIT may offer an opportunity to engage faculty and staff jointly on this topic. A white paper on FASIT would be valuable in capturing what was learned for other institutions, especially one highlighting how the original qualitative analysis shaped the program's design.

4.1.10. Student programming

The ADVANCE Center's work with Fish Camp and New Student Conferences (NSC) has been an intriguing experiment that is distinctive to TAMU and aligned with the institution's student culture. Climate survey measures have not detected the hoped-for broad change in faculty perceptions of student civility, but some individuals reported positive changes. For example, two interviewees separately remarked, "I haven't been called Mrs. [Surname] in a few years." Some who taught primarily first-year courses perceived more respectful student behavior in those courses. However, others reported disrespect from both male and female undergraduates, and from male graduate students, particularly international students. Social science data confirm that STEM women experience more incivility from students than do non-STEM faculty or men.

Recommendations: This effort is not a fit for institutionalization in the DoF office. It seems time to hand off this program fully to Student Affairs. Because other institutions are interested in civility interventions with students, it would be valuable to write a short white paper and share it on the website that captures lessons from this innovative program that others may build upon.

4.1.11. Access to data and information

The expanded climate survey and salary data analyses supported by ADVANCE have been "super useful," noted one dean. "We absolutely need these data." But some noted that data have "become a monster"—it needs to be easier to extract and compare data with disciplinary peers. Leaders expressed interest in a streamlined climate survey (with higher response rates) that was less customized to grant needs. They also sought faster return of analyzed data, and stronger practices for sharing data "down" as well as "up." Department heads of small units were frustrated by the lack of data available to them when sample or subgroup sizes were small.

Recommendations: Current plans to outsource the more specialized studies to faculty with expertise (from the ADVANCE internal evaluation and social studies teams) have merit as long as these faculty find it rewarding to participate, but it is not a long-term solution. Care should be taken to document their methods so that others can continue the studies. Faculty expertise should be sought to refresh and strengthen the climate survey as a monitoring tool.

Engage heads and deans who make use of these data to (1) share with other leaders ideas for using the data, and (2) advise on what analyses and forms of communication would help them most. There is room to improve in communicating, visualizing, distributing, and using these valued data. U. Maryland has pioneered 'dashboard' strategies for sharing faculty data and Case Western Reserve's IR office has developed a site for sharing faculty and staff climate data.

4.1.12. Knowledge sharing and external visibility

I was surprised by how often interviewees mentioned the ADVANCE Center website as a go-to resource. It is a well organized repository that is kept "fresh" and has both internal utility and high value to other institutions seeking ideas for how to improve gender equity on STEM faculties. In this way, the website enhances TAMU's reputation as a leader in this domain.

Recommendations: The website is a crucial tool for sharing TAMU's diversity achievements well beyond the grant period. Because outside users often come seeking ideas about specific activities, activity pages should include links to activity-specific reports and white papers where available (i.e., cross-referencing from the publications page, highlighting linked resources more prominently). Short annotations of items on the publications page would be useful to readers and flagged by search engines. When it becomes necessary to overhaul the website to communicate with internal audiences which programs are ongoing, it would be wise to capture and make available a clearly labeled "archival" copy of the site that reflects the full extent of NSF-supported work and that external users can peruse for ideas and models.

When I suggest that key lessons about specific programs be captured in short white papers, I do not assume this task should fall wholly on the leadership team. Activity committee leaders might be invited to document their work for posterity; an afternoon writing retreat might be organized

to hammer out a draft and celebrate their committees' accomplishments at the same time. Reviewing documents to compile one or a few white papers could make a fine independent study for a student with interest in evaluation, communications, or education. In addition to what is already on the website, Linda Stelly's project records and prodigious institutional memory can be tapped for needed background.

4.2. What structures will best support ongoing progress?

As decisions are made about programming, thoughtful consideration must be given to the institutional structures needed to support these efforts. The best solution will sustain the strong buy-in and support of faculty that is a hallmark of the ADVANCE Center's work (3.8) while also availing the Center of the strong administrative support that is possible from the office of the Dean of Faculties.

Speakers saw the placement of ADVANCE under the Dean of Faculties as a "natural fit," and as a sign of support from the institution and the Provost. This structural change makes the Center's contributions less susceptible to change in personnel or personalities. However, housing ADVANCE here is also recognized as offering complexity because of the DoF's multiple functions to support but also evaluate faculty. Given this dual role, "ADVANCE is seen as neutral," said one speaker, but the DoF office is not. In this new context, and given the importance of faculty leadership (3.8) for faculty confidence in its work, it will be important for ADVANCE to navigate to the right balance of trust and independence.

Dr. Lupiano, who joined the DoF office in 2016 after serving there as an ADVANCE Administrative Fellow, is a capable emerging leader for ADVANCE. However, she is recognized as "wearing many hats." Thus speakers identified a need for "someone whose job it is" to do this work—a professional director to inject energy, build connections, and work up ideas with faculty, "someone who can operate on a scale bigger than day-to-day but smaller than setting the direction for the whole university." Ideally, the director would balance good instincts for a consultative decision-making approach with the ability to recognize when deliberation is sufficient and it is time to push forward. Respondents' fears that the Center's energy and impact will diminish without an active director are well founded, as many ADVANCE IT programs have lost momentum when programs are formalized without people whose time is devoted to "maintaining the sense of purpose, the network of people" to carry the work forward.

I believe that faculty will continue to engage with ADVANCE if there is leadership to initiate and prioritize activities; I heard this from men and women who had engaged in such ways already. Structures that may contribute to sustaining the faculty leadership and involvement essential to the ADVANCE fingerprint include

- A working committee structure, perhaps modeled on TAMU's recent institutionalization of CIRTL. CIRTL was described as making a "seamless" transition whereby the "administration prods and the faculty working group makes it happen."
- A modest funding line for faculty-led projects to support improvements to faculty climate and support or to share successful local models more widely

 Support for the Women's Faculty Network to convene or lead initiatives for women faculty

Another possible structure, rather more formal, would identify associate deans to serve as ADVANCE liaisons between colleges and the DoF office (akin to the equity advisor model from UC Irvine and Michigan State). They would be the college's link to STRIDE, the ADVANCE Scholars program, and other faculty development efforts. In this scenario, it would be important for the liaisons themselves to engage faculty within their colleges.

TAMU's ADVANCE leadership team has been remarkably stable and committed throughout the life of the grant. As a group, they are smart, hard-working, and willing to learn from mistakes; they do not seek the limelight, but the changes described here would not have happened without them. As the Center's work continues, it is wise to continue to tap their deep knowledge and connections, while also inviting fresh perspectives into advisory and leadership roles.

Program coordinator Linda Stelly is the linchpin of the Center, given her accessible demeanor, long history with the program, institutional knowledge, and superb organizing and problemsolving skills. She is trusted by faculty participants and leaders who know her work. Currently Ms. Stelly's capacities are somewhat under-used. She can be a strong confederate for the EADoF and other leaders if she is viewed as a dependable senior staff member who can be trusted with confidential information and empowered to work with faculty and move initiatives forward.

4.3. How can the ADVANCE Center's goals evolve?

In this section I discuss two ways the ADVANCE Center's goals may evolve in the post-grant era: first, by extending existing programs beyond women in STEM, and second, by expanding the Center's activities to other issues and needs of faculty. As one speaker noted, "It is a sign of success that we have all this to build upon."

4.3.1. How can ADVANCE programming be extended to other groups?

ADVANCE was described as the "flagbearer for women in STEM; nobody else does exactly that." Yet speakers widely agreed that it was time to extend the Center's reach across disciplines, especially in college with some STEM and some non-STEM departments where uneven access to ADVANCE opportunities had generated new equity concerns. The issues for women are "not a STEM problem, but an academy problem," said one leader. Building faculty capacity and productivity is important, and women's successful participation helps the full department. In this way, the ADVANCE goals align with larger departmental and institutional goals. One dean advised the Center to focus on metrics such as funding and publications as a way to judge this impact; this recognizes what is valued at research institutions but also risks narrowing focus and missing important impacts on retention and job satisfaction.

In contrast, I met with few arguments for extending programs generally to men. "Men get these programs every day. They're called 'programs'," said a leader. Advancing women on the campus was still seen as a need, and "ADVANCE keeps women front and center." "We want it to be ingrained: We're not there yet for women in science, but we have made huge strides. We'll know when the time is right" for these programs to go away, said one dean. In discussing specific

programs for individuals (4.1.5-4.1.7), I have noted opportunities to extend the program to other groups, and the merits of doing or not doing this.

As discussed in Sections 3.3 and 3.8, expanding programs to men risks some loss of identity. Women's needs and characteristics may get deprioritized or diluted, and it will be harder for women to find others with the same issues. Some speakers noted that, even when ADVANCE programs were opened to men, they did not attend.

4.3.2. What additional issues need attention in the next phase of ADVANCE?

"The pieces are in place to build on what we have," noted one dean. Said another, "We haven't yet solved the issues that ADVANCE identified. We have some tools, but we aren't done yet. There is more to do here! We won't sit back and wait." What has been learned from ADVANCE about gender equity on STEM faculties can be applied to other faculty needs and other faculty groups, and the ADVANCE Center offers a useful platform for continuing to address equity and climate. I list here the needs articulated to me; they are broadly categorized, but this list is neither prioritized nor comprehensive, and it is not my recommendation to tackle all these issues; there is some risk to spreading the Center too thin too fast.

Needs surrounding diversity and climate for diverse faculty

- More women faculty in some departments that are not yet at a critical mass. "The women grad students still all come to me."
- o Greater numbers of African American and Hispanic faculty. "We have to build the culture first, then the numbers will come."
- o Stronger climate of inclusion, particularly for LGBTQ+ and African American faculty.
- o Attention to the needs of international faculty members, who are 18% of TAMU faculty.
- o Attention to academic bullying. "The rock star researchers are valued more."
- Equity in P&T processes, especially for faculty of color. Suggestions included strategies to ensure a diverse T&P committee, external letters from eminent scholars of a different race than the candidate, mentoring committees and/or advocates for each tenure case who could dispel misinformation that entered the process. Others raised concern about the "very terminal" third-year review: "Some peak early and then plateau, but I haven't peaked yet—I'm on a rising trajectory." There was concern that departments value the scholarship that faculty of color bring to the institution, and should not expect them to change the area of work for which they were hired.

Education and training needs

- Extension of formal training and consciousness raising about implicit bias to other settings and audiences, e.g. P&T committees, letters of recommendation, staff. It was suggested to focus less on persuading people that it is real, and more on providing tools.
- Effort to ensure that implicit bias trainings reach and attend to the backgrounds of people from various cultures, including international faculty, who may face bias because they

³ This perception is confirmed by survival analyses of institutional data.

- speak English with a non-native accent or who may perpetuate bias because they "don't know the history of this country."
- Opportunities to practice the skills, to go beyond awareness. Mediation training was cited as a "sneaky way" to develop perspective-taking skills. Heads need this too.
- o Coaching or executive leadership training, drawing upon expertise beyond campus
- Mechanisms besides trainings to raise awareness, e.g. one-on-one education or coaching.
 Some faculty are resistant to trainings.

Faculty support needs

- o Better mentoring across all career stages; better incentives for faculty to do mentoring.
- Attention to the burden of service, especially for faculty of color, and especially posttenure—a retention issue.
- O Better support for mid-career faculty in general. "Associate professors are not all the same." Supports must distinguish needs of the newly tenured vs. those long in rank; the goals should be to take a broad view of success. Even high-potential women benefit from the help of champions to build their reputations as they move from associate to full to distinguished professor. "There are still some glass ceilings that need to be shattered."
- Recognition of faculty as whole persons. "I resent being seen as a machine.... The focus
 on productivity, on counting publications, comes at a cost of quality and my sanity."

Needs for family-friendly policies and facilities

- o Gender neutral restrooms; family restrooms; changing tables for parents of all genders
- Lactation facilities for nursing mothers
- o Child care: the Becky Gates Center is well reputed but fills quickly, does not open early enough to accommodate instructors of 8 AM classes, and does not take infants.
- Education for children about diversity, not just about women but about people of different colors and backgrounds (a pipeline point of view).
- o Institutional capacity to accommodate life changes that affect work. "Heads need the mindset to support people with families."

Speakers also hoped for better communication to outside audiences about what TAMU does. Faculty were aware of outside perceptions of TAMU that they felt did not match the reality, but "no one's willing to go after that perception." Department heads felt that these perceptions hurt TAMU in recruiting faculty and international students in particular, and wanted help crafting a stronger positive message than "It's not as bad as you think." "We don't talk about the advantages of living here," said another speaker, but it's a good place for families.

Overall, speakers widely acknowledged that there is indeed more work to do. "There is never a finish line" for this kind of work, said one leader. "Long term, you want ADVANCE to disappear," said another, but now it is still needed to facilitate the full integration of women and other groups into the academy. "We have to empower people to speak up, to call things out" that they see, said one speaker. Often we still see "the usual suspects in the room," said another. "We still need to get everyone there who needs to hear" these messages about inclusion.

5. Concluding Comments

Based on my interviews and observations over the past seven years, the ADVANCE IT project has made a significant impact on Texas A&M. The hard work that ADVANCE and its collaborators have done is evident not only in program-specific outcomes but as "woven into the sentences" in conversations, "part of the fabric" of the institution. Effective engagement with other campus units and initiatives "contributes to the culture of inclusion" in a manner that is "synergistic, not additive." It seems clear the institution has turned a corner.

In my 2014 and 2015 reports, I urged the team to strengthen two efforts: enhancing the numbers, knowledge and activism of "educated advocates" who could help to communicate the coherence and impact of ADVANCE, and consolidating evidence from project evaluation and research to document accomplishments, persuade leaders, and point to future needs. On the first point, the widespread sense of faculty ownership and support is strong now, affirming the founding team's vision to engage faculty widely in ADVANCE work as an intervention itself. On the second point, I see progress in the evaluation team's efforts to make their reports more user-friendly, and evidence of impact in users' affirmation of the value of salary and climate data. I still find the social science team's work to be somewhat fragmented, expressed largely in technical language for discipline-based scholarly forums outside TAMU. The researchers have learned much, but what they have learned could have much more substantial influence on practice here and elsewhere if captured in forms and language intentionally directed toward practitioners and institutional leaders. I urge the team to aspire to this dual impact on research and practice.

One interviewee described ADVANCE as a "step change," and I find this description apt: I detect a sense of optimism and assurance in how people speak of diversity and inclusion at this campus that is qualitatively different from the past. I hear narratives of how ADVANCE has been a positive force in this progress, and I see palpable enthusiasm for continuing to work together on the important problem of helping all faculty to flourish. When speakers describe "light years" of change in the past decade, perhaps the best outcome is that they immediately follow this with "We can't quit now."

6. Acknowledgments

I thank all the site visit participants for their participation, candor and insights. I thank Blanca Lupiani for supporting the final site visit and Linda Stelly for making the arrangements. Linda's knowledge and connections were essential in constructing a well-filled schedule of focus groups, and her hospitality and forethought have made my repeated visits pleasant as well as productive. I offer my sincere good wishes to all the ADVANCE team as you plan for the future.

This report was supported by grant HRD-1008385 from the National Science Foundation to Texas A&M University, agreement S110022. All findings, opinions and recommendations are those of the author and not those of the National Science Foundation, Texas A&M, or the TAMU ADVANCE Center.

7. References Cited

- Austin, A. E., & Laursen, S. L. (2014). Strategic Intervention Brief #4: Development of Institutional Leaders. In Laursen, S. L., & Austin, A. E., StratEGIC Toolkit: Strategies for Effecting Gender Equity and Institutional Change. Boulder, CO, and East Lansing, MI. www.strategictoolkit.org
- Carnes, M., Devine, P. G., Manwell, L. B., Byars-Winston, A., Fine, E., Ford, C. E., Forscher, P., Isaac, C., Kaatz, A., Magua, W., Palta, M., & Sheridan, J. (2015). Effect of an intervention to break the gender bias habit for faculty at one institution: a cluster randomized, controlled trial. *Academic Medicine: Journal of the Association of American Medical Colleges*, 90(2), 221-230.
- Flahert, C. (2014, July 1). U. Michigan climate survey shows gains in morale. *Inside Higher Education*, https://www.insidehighered.com/quicktakes/2014/07/01/u-michigan-climate-survey-shows-gains-morale.
- Laursen, S. L., & Austin, A. E. (2014a). Strategic Intervention Brief #5: Inclusive Recruitment and Hiring. In Laursen, S. L., & Austin, A. E., StratEGIC Toolkit: Strategies for Effecting Gender Equity and Institutional Change. Boulder, CO, and East Lansing, MI. www.strategictoolkit.org
- Laursen, S. L., & Austin, A. E. (2014b). Strategic Intervention Brief #10: Support for Dual-Career Couples. In Laursen, S. L., & Austin, A. E., StratEGIC Toolkit: Strategies for Effecting Gender Equity and Institutional Change. Boulder, CO, and East Lansing, MI. www.strategictoolkit.org
- Laursen, S. L., & Austin, A. E. (2018, in press). Faculty development for mid-career women in STEM: Cementing career success, building future leaders. Chapter accepted for *Success after tenure: Supporting mid-career faculty*, ed. V. L. Baker. Sterling, VA: Stylus.
- Laursen, S. L., & Rocque, B. (2009). Faculty development for institutional change: Lessons from an ADVANCE project. *Change: The Magazine of Higher Learning* (March/April), 18-26.
- UM ADVANCE Program (2013, November). Assessing the Academic Work Environment for Science and Engineering Tenured/Tenure Track Faculty at the University of Michigan 2001, 2006 and 2012: Gender and Race in Department- and University-Related Climate Factors. Executive Summary. http://advance.umich.edu/resources/ADVANCE-2012-R1-ES.pdf
- Smith, J. L., Handley, I. M., Zale, A. V., Rushing, S., & Potvin, M. A. (2015). Now hiring! Empirically testing a three-step intervention to increase faculty gender diversity in STEM. *BioScience*, 65(11), 1084-1087.
- Stewart, A. J., Malley, J. E., & Herzog, K. A. (2016). Creating change in academic departments: What makes a difference? *Journal of Women and Minorities in Science and Engineering*, 22(1), 23-47.
- Sturm, S. (2007a). Gender equity as institutional transformation: The pivotal role of "organizational catalysts." In A. J. Stewart, J. E. Malley, & D. LaVaque-Manty, eds.

- *Transforming science and engineering: Advancing academic women,* Ch. 16, pp. 262-280. Ann Arbor: University of Michigan Press.
- Sturm, S. (2007b). The architecture of inclusion: The role of organizational catalysts. Presented at *The Science of Diversity*, Columbia University, New York, New York, 16 November 2006. Online version dated February 11, 2007. http://www2.law.columbia.edu/ssturm/pdfs/2-23-07%20buffalo%20talk.pdf (accessed 5/29/17).
- Taylor, L. L., Beck, M. I., Lahey, J. N., & Froyd, J. E. (2017). Reducing inequality in higher education: The link between faculty empowerment and climate and retention. *Innovative Higher Education*, 1-15. DOI: 10.1007/s10755-017-9391-1