

Annual Assessment Report

Reporting Unit College of Science
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Please define the groups applicable to your organization for which you collect information and make peer comparisons.

- Students
 - Undergraduate
 - Masters
 - Doctoral
 - Professional
- Faculty (including Professors, Lecturers, and Instructors)
- Administrators (applicable to all organizations)
- Budgeted Staff (applicable to all organizations)
- Other (Define) _____

1) Engaging the Data

FACULTY

In the College of Science the representation of women among the tenure track faculty is 13%, while our peers have 24%. In terms of URM (underrepresented minorities: Black, Hispanic, Native Pasic Islander, Am Ind) the college is doing better than our peers as TAMU has 4.6% URM faculty while our peers have 3.8%.

From Fall 2010 to fall 2011 we had a loss of 15 faculty. Of these 14/15 were male; 2 were Asian. There was only 1 tenure track faculty hired in the college, who was a white male. Since there was no loss of Black or Hispanic faculty and a less than proportional loss of female faculty, **there was a net increase in the diversity of the faculty in the College**. Detailed longitudinal data can be found in figure 1. Starting in 2004 we hired 15 female faculty in a three year period; many of these were the result of a dual career hire where both partners were hired into tenure track positions. This was possible at the time because we were in an aggressive hiring mode with multiple hires going on every year in each department. Since that time we have been able to retain these faculty due to the excellent career opportunities and positive climate in their department. The College is very aware of our need to find alternate ways to improve the representation of women faculty during the current mode of constrained hiring.

The ADVANCE center – a multi-college effort led by the College of Science - is an excellent example of the innovative ways that the college is working to address our underrepresentation of women. The Center, which promotes women faculty in STEM (Science, Technology Engineering and Mathematics) fields through institutional transformation is funded by a \$3.5M grant from the National Science Foundation.. This very tangible outcome of College of Science efforts to promote diversity benefits not only the college of science, but the entire university.

The College of Science leads the University in promoting inclusive excellence to the highest level. The only Black DP (and perhaps the only URM) in the University is from Science. Over 50% of the female DPs (4 out of 7) are from Science. This is an increase over the fall2010 reporting of 3 female DPs.

STAFF

Data on the staff was extracted from the AAUDE data warehouse. **Texas A&M College of Science staff is very similar to the staff of our peer institutions** – (67% white, 11%URM, 22% Asian)

Staff in October of 2011 was down 8 people from October of 2010. The number of Hispanics is up by 4, Asians are up by 2, Blacks are down by 2, and Whites are down by 11. **The percentage of minorities has increased from 10.4% to 11.1%** (URM from 10.9% to 11.5%). The percent of women among the college staff has increased from 43% to 45%. Detailed data in table 1.

STUDENTS

The college continues to increase the diversity of the students. The number of URM undergraduates in the college increased by 65 students (12%). The percentage of women undergraduates got closer to 50% (decreased slightly). The number of women and URM graduate students has continued its multi-year rise. For Fall 2011, relative to Fall 2010, there were an additional 20 female PhD students (13%) and an astounding 50% increase in URM PhD students (additional 14 students).

At the undergraduate level TAMU leads it peer institutions in enrollment of URM students by a significant amount as shown in figure 2. At the graduate level we have almost twice the representation of Hispanic students in our programs as our

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peers as shown in figure 3. Not only are the students enrolled in our programs, but they are graduating. 18% of the Bachelors' degrees awarded in 2010 at TAMU went to URM students, while for our peers this was only 11%.

2) Recent Efforts - Retention

FACULTY

The college has worked diligently to retain members of underrepresented groups in the college. Two such faculty were unhappy with the lack of salary increases since they were hired so they sought (and received) outside offers. Significant effort – not to mention resources – was brought to bear so that both of these faculty would be retained. Another faculty member from an underrepresented group is part of a dual career couple. The college has worked diligently on this partner placement issue over the years. This year the college put forth considerable effort to extend the bridge position for another year.

Non tenure track (NTT) faculty were given more voice at the college and departmental levels. For instance, the COS Faculty Advisory Committee was reconstituted to ensure representation of NTT faculty. Additionally, in Mathematics there is a new position of Assistant Department Head for Lecturer and Freshman Affairs, who will be female. The position of Associate Head for Operations and Undergraduate Affairs in Mathematics is held by a Hispanic faculty member.

Many of the Colleges initiatives in faculty retention have become models for other units in the University that have subsequently adopted similar policies or programs. These include our Teaching Load redistribution policy for primary caregivers (model for COALS, ENGR and the DOF policies); Dependent Care travel grants (model for an ADVANCE center proposal to Elsvier Foundation to extend to other STEM colleges, and proposed new program in COALS) Additionally, all tenure-track faculty in the college are part of our Success Circle mentoring program. These efforts have undoubtedly contributed to the excellent retention outlined in the previous section.

STAFF

There has been very little turnover of staff in the college. Our recent COS Climate Survey (see below) indicates high satisfaction with the work environment, due in part to the efforts made throughout the college to make staff realize they are valued members of the organization. Some of the departments (Chemistry) have staff councils while others (Physics, Biology) include staff among the departmental committees. Many of the social events in the college include staff and their families. Additionally, the COS actively participates in the ADVANCE faculty-staff interaction activity with members of all departments taking part in one of the focus groups. Ten internal research staff (female postdocs) were nominated by their departments to participate in the ADVANCE Roadmap workshop. This is professional development for these staff members, but also a potential pipeline to faculty positions.

STUDENTS

To improve retention, additional advising and support have been provided to students, with particular attention being paid to undergraduate Regents' Scholars. Learning communities have been created to help to create peer mentoring and lasting relationships. Starting undergraduate and graduate students on a successful path is achieved by new student conferences and orientation seminars. At both the undergraduate and graduate level there are discipline-specific student organizations that help all students with academic, professional and social success here at Texas A&M.

A NoBCChE (National Organization for the Professional Advancement of Black Chemists and Chemical Engineers) chapter was created through the efforts of the Chemistry Department at TAMU.

Recent efforts - Recruitment

FACULTY

We had no open faculty searches this year in the college. Despite this several departments in the College partnered with the ADVANCE Center to invite women who were members of the National Academy of Science to campus. These women gave research talks, but also presented talks about broadening participation in science. Because of their stature as scientists they were able to attract a much broader audience than typical to both talks. Visits such as these by eminent senior scholars are always a first step in any possible courting of senior faculty.

STAFF

All staff hiring follows HR procedures, which includes interviewing all the most qualified applicants regardless of race or gender. However, particular attention is paid to recruiting diverse applicants.

STUDENTS

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Members of our External Advisory and Development Council call students that have been admitted into the college, but have not yet accepted.

The COS does a tremendous amount of outreach to young Texans to increase their interest in Science and Texas A&M. The extensive outreach efforts of the college (Table 3) have increased the targeted recruiting of diverse groups.

Our Science Scholars program with Palo Alto College has been a tremendous success for recruiting, retaining, and graduating low income students from the San Antonio area that are predominately first generation, Hispanic and/or female.

The College of Science is equally proactive when it comes to graduate student recruiting. The COS, over the last three years (2010-2012) has nominated 53 doctoral student recruits for TAMU Graduate Diversity Fellowships (20 in Spring of 2012). Of these nominated students, 41 were selected by the University's review committee and offered fellowships (16 in Spring 2012). Seventeen of these 41 recruits that were offered fellowships (42%), in turn, accepted them and enrolled as Diversity Fellows in our graduate programs (9 fellows or 45% in Spring 2012).

The College of Science has been an active participant in the TAMU LSAMP Bridge to the Doctorate (BTD) Program. Across our last two BTD cohorts (VI and VII), 8 of 23 fellows were COS doctoral program recruits and the Science fellows included 3 Hispanic, 1 African American and 3 female students. We recently (August 2012) received funding for cohort VIII. These students will be recruited for Spring 2013).

In a recent initiative, the COS awarded \$156,000 in top-off scholarships (Dean's Doctoral Scholars) to first year graduate recruits in 2012. Under-represented minorities in our fields (women and ethnic minorities) made up 37% (39/107) of our scholarship recipients. Still, African American and Hispanic doctoral students remain in single digit percentages within our graduate program student body. We have College and Department activities focus on bettering these numbers. In this regard, we are members of the GEM consortium and aggressively recruit students through venues like the NOBCCHE and SACNAS, a society devoted to Advancing Hispanics, Chicanos and Native Americans in Science.

3) Future Efforts

FACULTY

Although we do not yet have the fall 2012 faculty numbers, we expect the loss of about a half dozen more non-minority male faculty. This will again increase the percentage of our faculty that belong to groups that are underrepresented in science.

Working with the ADVANCE Center a proposal has been submitted to the Henry Luce Foundation for a Clare Boothe Luce Professorship in Science. If we are successful (both with the proposal and in recruiting a top notch faculty candidate) this will result in at least one additional female faculty member in the College. We will continue to seek avenues such as this that will enable hiring of outstanding faculty even in the currently constrained financial situation. Inclusive Excellence is a core principle in all faculty and staff searches throughout the college.

Proactive efforts are being made at professional development of the partner mentioned above (although the partner is not in our college) in hopes that we will be able to retain this dual career minority couple.

At the time of this report there is another potential loss of a female faculty member, but we are working diligently to put together a retention package so that she will continue her career here.

We plan to continue to benefit from ADVANCE resources by hosting speakers through their Eminent Speaker Series and applying for minigrants to support efforts to improve faculty communication (Biology) and to build community among women (Mathematics).

STAFF

Physics committed to support a 2012-13 academic year lunch series for women in Physics and Astronomy. This would be open to research staff as well as students and faculty.

STUDENTS

We have initiated a TRANSFER learning community modeled after our very successful Science Scholars program frunded by an NSF SSTEM grant. 85 students attended a one day orientation the Friday before school started.

Another SSTEM grant has been submitted to the NSF which builds upon lessons learned from the first partnership with Palo Alto College and expands to tap into other regions of the state with high minority populations.

Recruiting trips to targeted schools will continue in fall 2012 as funds allow.

4) Advisory Groups

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The College of Science has a standing Diversity Committee, with representation from each department in the college and the department of multicultural services meets monthly and reports to the Dean. The group currently consists of women and men, majority and URM, as well as domestic and international faculty.

The COS has a diverse External Advisory and Development Council with both women (7) and URM (1) as members (54 total). This group meets twice a year and Diversity is often a subject of discussion - both formally as part of the program and informally. This group has had two women serve as Chair.

The Department of Statistics Alumni Board consists of 13 members total with 9 males and 4 females. This group has met and provided feedback to our graduate students and helped to identify contacts in companies for our Industrial Affiliates Program. The Department of Chemistry is advised by two primary committees. Their Executive Committee has 1 Latino and 2 women of 7 faculty. Their P&T committee has 1 African American of 7 males. Minorities and women have served regularly on both of these committees. In Mathematics the Associate Head for Graduate Studies is Hispanic, the Director of the Honors Program is female and 2 advisers are female. The Department of Physics and Astronomy is establishing a Departmental Diversity and Climate Committee (composed of faculty, graduate students and staff) to help provide oversight and guidance to the department in related areas. The department has also taken steps to add graduate student representation to the appropriate standing committee within the department.

5) Organizational Climate

A climate survey was done in the fall of 2011. All faculty, staff and students were sent a request to fill out a short survey. The overall climate in the college is quite good. A high proportion of faculty, staff and graduate student respondents indicate that their department fosters a welcoming, supportive atmosphere that values diverse perspectives. The responses of those who considered themselves members of an underrepresented group did not reveal marked differences from the population as a whole. Our ability to retain faculty, staff and students is consistent with the positive results of the climate survey.

The results were discussed at COS Executive Committee meetings. The Likert scale responses for each department were given to the department head and diversity committee representative. For reasons of confidentiality the written comments were coded so that the richness in them could be utilized without identifying the respondents. All of the departments were asked to review their results and see if there were areas in which they could improve the climate. The results of the climate survey also were discussed with the graduate and undergraduate advisors in each department. The department heads and diversity committee members were encouraged to share the results more broadly with the departments. Throughout these presentations members of the College were reminded of the importance of continuing to foster an inclusive and cooperative work environment.

6) Other Efforts

New Efforts- Programs directly enabled / enhanced by the 2011 diversity fund allocation to the College of Science

- Establishment of NoBCChe Chapter
- Minority student lunches
- Faculty seminars at minority serving institutions to recruit REU and graduate students.
- Research internships for underrepresented / under privileged students
- Tuition assistance for financially needy middle school students to attend summer math program at Texas A&M
- Female and URM speakers in Math, Stat & Chem/ meetings w/ UG and GS as well as research seminar
- Supported participation in Women in Science and Engineering conference
- Women in math teas to develop positive relationships among female faculty, staff and students
- Trips to target high schools for recruiting URM undergraduate students
- Lecturer professional development support
- Support for SmArt camp and Math Fest
- Partial support for travel abroad to Tanzania in East Africa
- Organized National Conference for undergraduate women in physics
- Supported travel for a middle school class to attend our physics festival
- Supported travel for grad students and faculty to attend minority serving conferences (SACNAS & ABRCMS)

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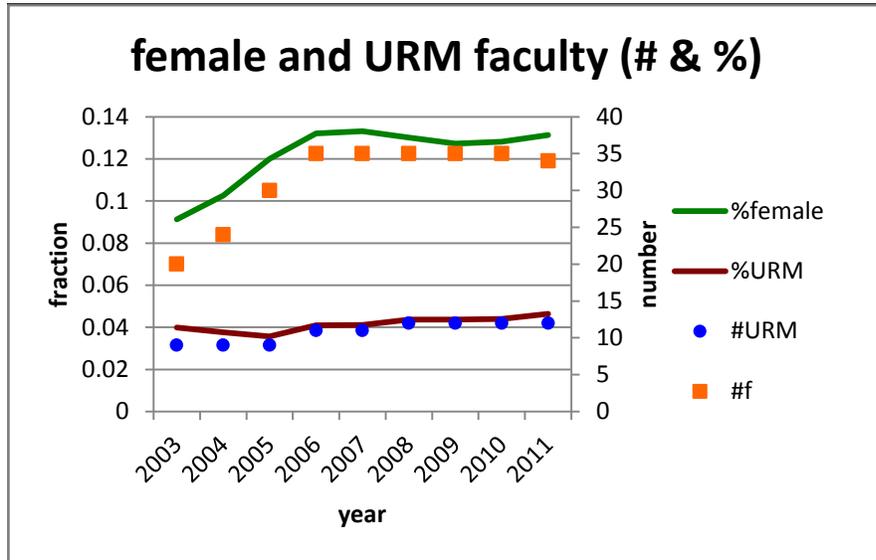


Figure 1: Number and percentage of female and URM faculty in the College of Science.

		2010	2011	
American Indian Or Alaskan Native	Male	1	1	
American Indian Or Alaskan Native Total		1	1	
Asian	Female	28	30	2
	Male	67	67	
Asian Total		95	97	↑
Black Or African American	Female	11	10	2
	Male	6	5	
Black Or African American Total		17	15	↓
Hispanic	Female	18	21	4
	Male	9	10	↑
Hispanic Total		27	31	↑
-Not Specified	Female	2	2	
	Male	13	13	
	-Not Specified	1		
-Not Specified Total		16	15	
Two Or More Races	Female	1	1	
Two Or More Races Total		1	1	
White	Female	132	132	
	Male	159	148	11
White Total		291	280	↓
Grand Total		448	440	

Table 1: College of Science staff – October 2010, October 2011

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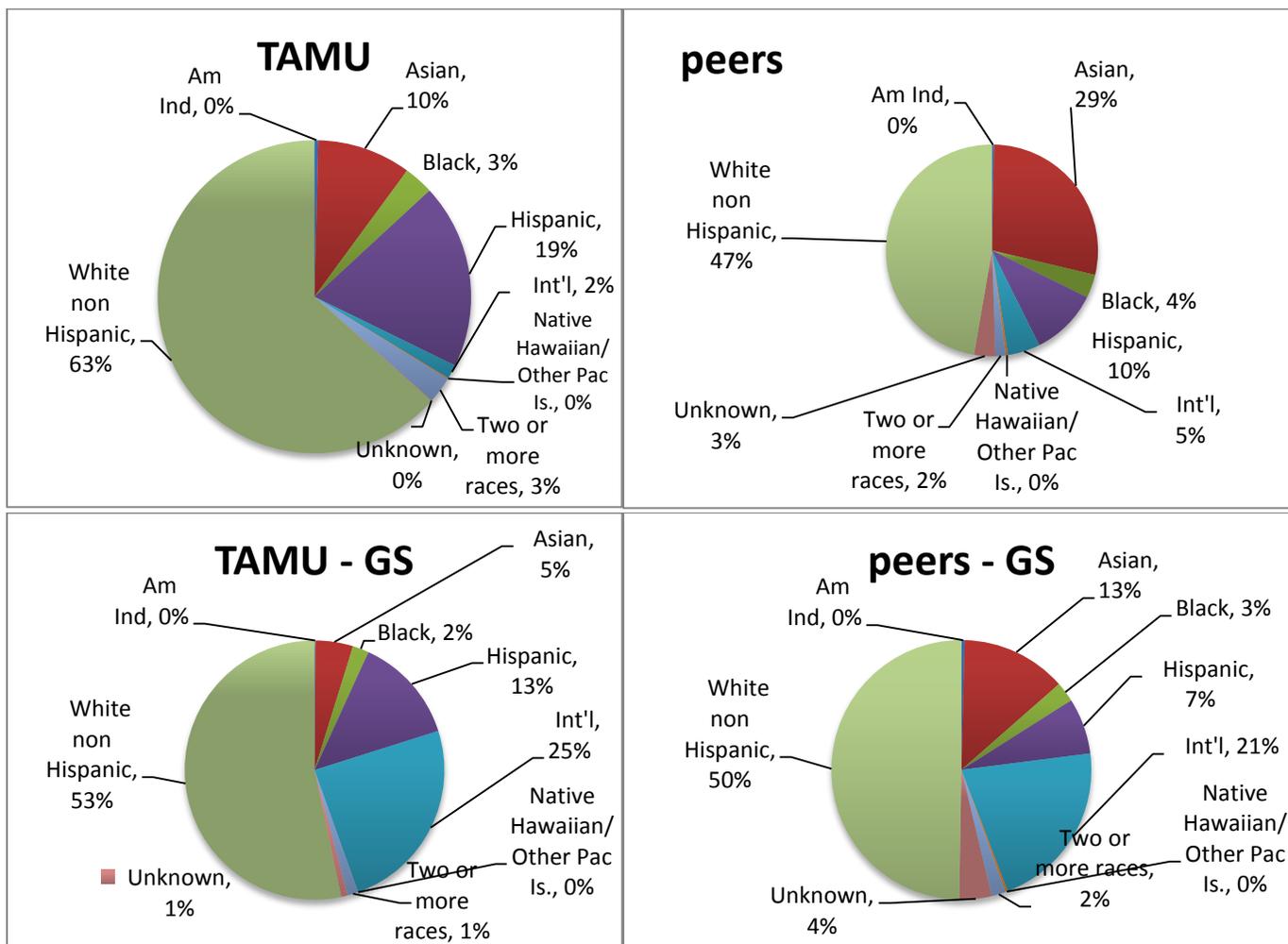


Figure 2: Undergraduate (UG) & Graduate (GS) enrollment of Texas A&M versus peers, by CIP code (26,27,40), Fall 2010 data.

<u>Administered by the College of Science Dean's Office</u>	<u>Administered by the Departments</u>
Summer Scholars – Research Experience for Undergraduates supplement program	Mentoring through Critical Transition Points program (for high school and first year college students)
Expanding Your Horizons	Physics Extravaganza
Texas A&M Junior Science Bowl	Saturday Morning Physics
Texas A&M Regional Science Bowl	Chemistry Road show –presentations throughout TX for K-12
Texas Junior Academy of Science	Physics shows- presentations in Brazos Valley for K-12?
Texas Junior Science & Humanities Symposium	High school math contest?
Texas Science Olympiad	Chemistry Open House & Science Exploration Gallery (presentations from Chem, Biol, Physics departments)
SSTEM grant – 2+2 with Palo Alto Junior College	Science Café
Advanced Placement Institutes in Biology, Chemistry, Mathematics, Physics and Statistics	Summer Educational Enrichment in Math (for middle school students)
	Integral bee
Women in Science and Engineering Annual Conference	Physics camp for the Youth Adventure Program
Susan M. Arseven 'Make A Difference' Memorial Award	Summer Mathematics Research Training High School Camp
Ethel Ashworth-Tsutsui Memorial Lecture & Awards	Mini math fair
	Monthly Viewing Nights at the Physics Observatory
	Math Awareness Month (for K-12)

Table 3: Selected outreach event