

NSM ADVANCE Task Force - UH Faculty Climate Survey Review

Within the overall UH Faculty Climate Survey results, NSM performed poorly in three overarching areas:

1. NSM ranked lowest for collegiality amongst all colleges on campus;
2. NSM ranked close to lowest for support of diverse faculty; and
3. NSM ranked second lowest for adequate resources.

We met with tenured and tenure-track faculty members from the departments within NSM to discuss the results of the faculty climate survey. At least one delegate from each department was designated to lead meetings and solicit feedback from the faculty in each department. Our goal was to determine why NSM scored low on the overarching themes listed above and identify ways in which the climate within NSM could be improved. We address each of the overarching themes below.

NSM Climate Survey Overarching Themes

1. Collegiality & Interactions between Faculty Members

The items where NSM ranked lowest in the university had to do with collegiality and interpersonal dynamics between faculty members. One common example of this is the trend for faculty across many departments to not attend seminars or other department events. This paints a bad picture for invited speakers and sets a poor example for students. It was also noted that some faculty members are rarely on campus. The NSM faculty identified three potential causes for the low score on collegiality and interactions, along with potential solutions to each cause.

First, the departments within NSM are large, and some are split into divisions, either formally or informally. This makes communication amongst faculty members difficult at times, and it may decrease engagement with the university, college, and/or department. To address this problem, it was suggested that the departments and college could create more situations for faculty within departments and throughout NSM to interact. This includes more retreats and other departmental/college events. These events must be appealing to the faculty in order to achieve attendance levels that would ensure meaningful interactions. Engaging departmental leadership in this endeavor could also help improve collegiality and interactions. For example, leaders from within and across departments could meet with other groups within departments and other departments in NSM to familiarize themselves with other units and better understand their culture, goals, and challenges.

Second, NSM and its member departments are split across multiple buildings. Concentrating the faculty into fewer buildings, and creating common spaces in those buildings, could increase our interactions and improve our interpersonal dynamics. For example, there is space in SR2

vacated by the College of Pharmacy. NSM could advocate for the space on the grounds that it will increase cohesion within departments and across the college.

Third, there is a lack of faculty engagement with their departments, college, or the university that could be a result of frustrating work experiences, in part because of how the faculty are treated by the university. For example, the faculty do not feel like their opinions are valued above the college level. More dialogue between NSM faculty and university-level administrators could decrease frustrations. One specific example that came up during discussions is that faculty do not believe that the financial firewall between the medical school and rest of the university will hold. Also, the 50-in-5 plan feels like it was thrust upon the faculty without faculty input. Some faculty believe it is a poorly implemented plan without the necessary resources (see Resources discussion for more).

2. Diversity Climate

Many NSM faculty members believe that we need to have an active conversation about diversity at the university both in terms of the undergrad population and faculty hiring. Within NSM, only one department has gender-parity amongst the tenured/tenure-track faculty, and none of the departments are racially/ethnically diverse. In addition, the NSM undergraduate population has fewer Latino and African American students than UH as a whole. We discuss a few ways forward to improve faculty and student diversity within NSM.

The NSM faculty view positively the activity in the NSM Dean's office to improve undergraduate diversity within NSM. We would like to see these activities continue.

The NSM faculty largely support the university's efforts to address low faculty diversity, albeit with some vocal exceptions that made their opinion known at a recent NSM faculty meeting. For example, the university is encouraging the hiring of more faculty from under-represented backgrounds, and many NSM faculty are excited to participate in these efforts. However, the NSM faculty do not think there is sufficient investment (i.e., money) behind these efforts to lure talented recruits. In addition, some departments report that they have had trouble scheduling training sessions run by the university to improve diversity in hiring.

Despite the aforementioned positive attitude about college and university measures to improve diversity, the NSM faculty are concerned about existing efforts to improve faculty diversity at the college or university level. The ADVANCE grant is a move in the direction of greater discussion, but we are concerned that there are still portions of the NSM faculty that argue against the idea that diversity on the faculty should even be a stated goal. Without full participation of all members of the faculty, it is difficult to make strides in this area.

3. Adequate Resources

The NSM faculty's concerns about resources can be divided into four areas: equipment, research support, physical plant, and administrative burden. We address each area separately below.

Staffing/maintaining equipment

Functioning equipment with the necessary staff support is essential for the research and teaching productivity of the NSM faculty. The NSM faculty is generally concerned about a lack of long-term planning for the purchase, usage, and maintenance of shared equipment at UH. For example, we are deficient in essential equipment, such as automated cell sorters, laptops to share, licenses for specialized software, scantrons, and autoclaves, which are standard shared equipment at top-50/AAU institutions. Faculty are sometimes burdened with not having access to reliable photocopiers, projectors, or other basic teaching needs. In addition, there is a lack of support in some departments for purchasing teaching equipment. The university should provide financial support to faculty to purchase equipment required for teaching, including computers, laptop peripherals, and other supplies.

One potential cause of the equipment deficiencies is the way in which these items are purchased and managed at UH. At top-tier institutions, essential shared research equipment is typically purchased with university funds; however, UH often requires faculty to write external grants for such lab purchases. This creates a problem because large funding agencies such as NSF will only award grants for improvements to existing equipment, and we lack the existing equipment required for those improvement grants. The university should invest in the core/basic research equipment so that faculty can write more competitive grants to fund expansions and improvements to that core equipment.

Research equipment and facilities that are poorly supported, understaffed, or not properly maintained creates other issues. For example, the core facilities that we have, such as the biological microscope facility or the UH Coastal Center, lack institutional support required for effective operation. Furthermore, the deficiency of animal care resources, including the out-of-service animal care facility in SR2, make it difficult for the faculty to do research. In addition, faculty members are often required to support technical staff for running shared equipment out of their own funds, with little to no support from the college or university. We would like to see more support for paying the salaries of personnel who operate shared equipment. Tenured/tenure-track faculty also spend too much time trying to deal with failing equipment, which prevent them from focusing on other parts of their jobs (e.g., writing grants, publishing papers, mentoring students, and teaching classes). The university/college should assist with investing in equipment service plans, improve support for shared equipment, or purchase new equipment to compensate for out of service equipment.

Faculty research support

In addition to problems with equipment, the NSM faculty are generally concerned about the level of research support they receive. These concerns range from start-up packages for new hires to continuing support for faculty already at UH.

First, the university should give new hires more flexibility in how they spend their start-up funds by relaxing expiration dates and removing limits on budget items. For example, new hires are

often required to spend all funds within an unreasonable period of time (2-3 years), and they are limited in how funds can be spent (e.g., only on equipment and supplies, not on personnel). The start-up restrictions are more rigid at UH than at other research universities, and they should be relaxed to allow UH to remain competitive in hiring and retaining faculty.

Second, existing faculty are concerned about continuing research support from the university and how this affects the retention of productive faculty members. The current internal awards are not sufficient, and there are insufficient internal grants to support risky projects or new avenues of research. GEAR awards have a low funding rate, and they cannot reliably be used for the purpose of new research directions. The NSM faculty need more internal grant mechanisms.

Similarly, more money should be invested in faculty retention. New hires are expensive, and the university could save money by investing more in retention. Faculty retention efforts could include both direct investment and also following the advice above to create a more productive research environment. Moreover, seed funding could be available to reward promotion.

We recommend that the UH upper-administration visit institutions with top-50 programs to observe the resources and support the science faculty at those institutions receive. We do not believe that we can achieve the goals of the 50-in-5 initiative without a greater investment to bring us closer to the top-50 institutions.

Physical plant maintenance

Issues with building infrastructure place an undue burden on NSM faculty. The fact that faculty must continually consider physical plant issues of the most basic level, such as leaks during rain storms or a lack of clean or hot water at unpredictable intervals, precludes truly being able to do research at the R1 level. Ignoring problems or putting up signs that say renovations are coming—signs that have since faded as they hang indefinitely—perpetuates the continual work of faculty to overcome simple issues. Examples of these issues include:

- air handling systems are broken and need to be replaced by a new HVAC system in some buildings (e.g., SR2);
- there is a lack of space for many basic functions, including lounge and meeting spaces;
- offices and even labs leak in the rain;
- there are regular plumbing problems, both for incoming and outgoing water;
- stairwells are missing floor tiles which is not only unattractive but also a tripping hazard; and
- when facilities work is done, it is often done over an extended period of time that includes large gaps during which no work is actually being done, exacerbating the space problems.

We note that most of the NSM facilities staff work diligently to solve these issues but must do this yeoman's job without adequate resources.

Administrative burden

There is a large administrative burden on faculty. It is our experience at UH that administrators often create more administrative burden for faculty rather than contributing toward assisting faculty. For example, the IACUC procedures and protocols take a long time with many delays. Some IACUC restrictions result in under-powered experiments because IACUC will not approve sufficient numbers of animals. The experiences of the NSM faculty are inline with the National Academies Report on administrative burden, which finds that administrative tasks often do not help the faculty, and instead only result in reduced time devoted to research (<http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=21803> and <http://sites.nationalacademies.org/PGA/stl/researchregs/index.htm>).

Much of the burden comes from using websites that are required for administrative tasks. For example, faculty are unfamiliar with websites that are required for compliance training and certification. We only use those websites occasionally, and it takes too much time to figure them out during each use. The university should improve the websites for compliance documents/training (e.g., IACUC, COI training, fraud prevention) and provide more administrative assistance with those forms. The UH EHLS website should be a model for improving other sites where NSM faculty must complete administrative forms. Administrators who are familiar with the systems should assist faculty who are rarely using the system to expedite the training process.

In addition, the websites and administrative staff are unable to handle field research and other research conditions outside of routine settings. For example, when travel is necessary for research, the restrictions make it difficult to book itineraries that reduce costs and simplify travel arrangements. Administrators should be more flexible about travel, field research, and other expenditures outside of routine settings. An example of a high-level of administrative support within NSM is our pre-award office, whose staff offer tremendous assistance with preparing and submitting grant proposals. The NSM pre-award office should be a model for the administrative support provided throughout the university. In contrast, too many other offices appear to have an attitude that their primary function is to make sure rules are followed, rather than to make sure that work gets done adequately and in a timely fashion.

Proposed Solutions

Based on the above discussion of problems identified by the UH Faculty Climate Survey and then discussed with the faculty of the six departments within NSM, improvements have been suggested, some of which are described above. We summarize the key suggestions below, which include changes to be made at the individual department, the college, and at the university level.

Collegiality & Interactions between Faculty Members

Departments and NSM should create more situations for faculty within departments and throughout NSM to interact, including informal chairs meetings to discuss best practices, more retreats and other departmental/college events, and a clear message that all faculty should be on campus on a regular basis and participating in seminars, guest visits, student events, etc. Concentrating the faculty into fewer buildings, and creating common spaces in those buildings, could increase our interactions and improve our interpersonal dynamics. Lastly, NSM should facilitate more dialogue between NSM faculty and university-level administrators.

Diversity Climate

Diversity was not traditionally at the top of the list of priorities at most educational institutions. However, today there is a much greater focus on achieving diversity, not just for its own sake but for the benefits it will bring, including support of a diverse student body, breadth of research focus, and access to—and support of—the fullest range of leading job candidates. In addition to ongoing steps being taken in conjunction with the ADVANCE office, the starting point for specific new improvements in NSM should be launching an awareness campaign for understanding diversity and its benefits in scientific research so that support for these initiatives is attained through a broad swath of the faculty, rather than leaving just a token few to worry about it. Moreover, as a Hispanic Serving Institution with a majority-minority student enrollment, UH serves an important role in the education of historically underrepresented minority groups. To that end, NSM should continue to work toward enrolling, educating, and graduating a population of students from minority backgrounds that is representative of the university as a whole.

Resources

The NSM faculty would benefit greatly from more physical resources (e.g., shared core lab equipment, teaching resources) and monetary support for research. In addition, NSM faculty would also benefit from enhanced administrative support, potentially administrators who assist smaller groups of faculty members rather than servicing the department. Some faculty are willing to invest their own funds in support of such administrators but they have been denied that flexibility in some cases. Indirect costs could also be invested in improving administrative assistance. Facilities and research support problems may need greater support than is available purely through NSM, but the college needs to become a greater advocate at the university level for our facilities and research support problems.

Summary

In order to improve the tenured and tenure-track faculty climate within NSM, the college should create an environment in which (1) faculty members can have constructive and productive interactions, (2) faculty and student diversity is valued and increased, and (3) sufficient resources are provided to promote success in teaching and research. Specific examples of current limitations in each of these three areas are described above, along with proposed solutions to existing problems. Notably, addressing these three areas will require efforts beyond

what NSM and its member departments are able to provide—investment is also required by University-level administration to provide physical space for NSM faculty to interact, continue to improve projects that increase diversity, and improve resources for faculty research and teaching success.

Task Force Members

Biology & Biochemistry: Richard Meisel

Chemistry: Scott Gilbertson

Computer Science: Tamar Solorio and Nouhad Rizk

Earth & Atmospheric Sciences: Julia Smith Wellner

Math: Annalisa Quaini

Physics: Donna Stokes

Report to NSM Dean's Office Completed 12/20/18