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I. INTRODUCTION

NASA conducted a compliance review of the University of Hawaii at Manoa ("UH" or "the University") Department of Physics and Astronomy, the Institute for Astronomy (IfA) and the Hawaii Institute of Geophysics and Planetology (HIGP), to ensure that beneficiaries of NASA grants have equal opportunity, without regard to sex, to pursue, participate in and benefit from academic, extracurricular, research, occupational training and other educational activities. The review was conducted under Title IX of the Education Amendments of 1972, and NASA’s implementing regulations and policy, which prohibit discrimination on the basis of sex in educational programs and activities receiving Federal financial assistance.

A. Background

NASA conducted this compliance review pursuant to its Title IX regulations, which provide for periodic review of NASA grant recipients. The Agency has been involved in many Title IX related compliance activities since the regulations were issued in August 2000. For example, NASA conducted limited scope “desk-audit” reviews of 183 grant recipients between 2003 and 2006, to evaluate compliance with Title IX procedural requirements. NASA’s Title IX compliance program received further impetus with the July 2004 recommendation of the Government Accountability Office (GAO) that Federal agencies conduct onsite compliance reviews. In addition, the NASA Authorization Act of 2005 requires NASA to conduct at least two Title IX compliance reviews annually.

B. Objectives and Scope

NASA sought to achieve the following key objectives in conducting this review:

Objective 1

To evaluate UH’s compliance with NASA Title IX regulations regarding the Title IX Coordinator’s function and responsibilities; to confirm the existence of a Title IX policy and the quality of its dissemination; to evaluate Title IX grievance procedures and the effectiveness of their implementation; to review Title IX self-evaluation efforts, specifically regarding the UH programs under review; and to evaluate in light of Title IX regulations the following elements of program administration: recruitment, outreach, admission, enrollment, and retention; academic advising/career counseling; research participation and classroom experiences; and policies/procedures and Physics student experiences relating to parental/marital status (“family friendly” policies) and safety; and recent faculty recruitment efforts.

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1 NASA Policy Directive 2081.1A, Subject: Nondiscrimination in Federally Assisted and Federally Conducted Programs of NASA - Delegation of Authority.
2 Title IX of the Education Amendments, as amended (20 U.S.C. §§ 1681-1688); Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance, 14 C.F.R. Part 1253.
4 Specifically: designation of responsible employee and adoption of grievance procedures, 14 C.F.R. § 1253.135(a).
5 Government Accountability Office, Gender Issues: Women’s Participation in the Sciences Has Increased, but Agencies Need to Do More to Ensure Compliance with Title IX (July 2004) (July 2004 GAO Report). Included in the Report’s recommendations was that “the Administrator of NASA continue to implement its compliance review program to ensure that compliance reviews of grantees are periodically conducted.” (p. 28).
6 See 42 U.S.C. § 16798(b).
Objective 2

To identify promising practices of the UH Department of Physics and Astronomy, IfA and HIGP, designed to promote gender equity; and to identify efforts consistent with the recommendations and focus of the July 2004 GAO Report, and to determine the extent to which promising practices are actually helping to create greater gender diversity in these UH programs, including both students and faculty.

C. Methodology

1. Compliance Review Plan

NASA developed a Title IX compliance review plan (CRP) to identify potential issues, relevant regulatory requirements, and the specific inquiries needed to conduct a thorough compliance assessment of its grantees. The CRP was developed in consultation with the U.S. Department of Justice (DOJ), Civil Rights Division, and the U.S. Department of Education (ED) Office for Civil Rights, the lead agencies on Title IX investigations. It was informed in part by a Title IX literature review. The CRP identified two focal points for compliance assessment: procedural compliance requirements and program administration. The CRP also identified the methods by which needed information would be gathered from recipients for each of the substantive areas, including: information requests for statistical data and relevant policies and procedures, and an on-site visit to interview university officials, program faculty and graduate students.

2. Literature Review

In an effort to understand potential emerging concerns, NASA conducted a review of literature regarding women in science and engineering (S&E) programs, including Title IX policy and enforcement in the S&E context. To be aware of experiences of women in the physics context, NASA relied primarily on the summary report of the American Physical Society (APS) Committee on the Status of Women Site Visit Program, which provides valuable information about women’s experiences in physics programs and overall program climate based on site visits to over 40 university physics departments. In this regard, NASA notes that APS’s work indicates important ingredients for a positive climate can include: at least several active, mainstream female faculty; a group of female students who interact regularly with each other; a


8 APS Program Summary. APS has not conducted a site visit at University of Hawaii at Manoa.
supportive department chair who listens and responds to concerns of students; and efforts to create a safer physical environment.\textsuperscript{9} We note also that the programs evaluated in this review exhibited these characteristics of positive climate, with many promising practices to report.

3. \textit{On-site Compliance Review Activities}

NASA conducted an on-site review of the UH Department of Physics and Astronomy, the IfA and the HIGP, on April 28 – May 1, 2008. During its visit, NASA staff conducted one-on-one interviews with 13 faculty members of these programs (six women and seven men), including the Physics and Astronomy Department Head, the Directors of IfA and HIGP, the Graduate Studies Heads of these programs, and one additional faculty member (female).

NASA also conducted one-on-one interviews with 16 graduate students in these programs (10 women and six men). Additionally, NASA met with the UH Title IX Coordinator and four other UH staff with Title IX compliance and/or gender equity related roles and responsibilities.

II. \textbf{COMPLIANCE REVIEW ANALYSIS}

The compliance review analysis provides an assessment of issues within the two focus areas of procedural compliance requirements and program administration. The recommendations are intended to strengthen existing compliance activities. Promising practices associated with each of the compliance areas are also reported.

A. \textit{Designation of Responsible Official for Title IX Coordination and Enforcement}

1. \textit{Regulatory Requirements/Guidance}

The NASA Title IX regulations state that a recipient must designate an official responsible for Title IX coordination and enforcement, a “Title IX Coordinator.”\textsuperscript{10} The recipient must notify all students and employees of the Title IX Coordinator’s name, office address, and telephone number.

2. \textit{Findings of Fact}

UH Manoa has designated the Director, Equal Employment Opportunity and Affirmative Action Office (EEOAAO) as the Title IX Coordinator for the campus. The Title IX Coordinator has served in this position for 20 years. She reports to the UH General Counsel, who in turn reports to the UH Board of Regents.

Contact information for the Title IX Coordinator and her staff is published in the printed and online versions of the UH Manoa undergraduate and graduate catalogues, as well as the EEOAAO web site. The web site for the UH Manoa campus also contains a prominent EEOAAO link in the “Offices and Services” dropdown menu. EEOAAO staff contact information is also published periodically in the “UH Staff News.”

The Title IX Coordinator and her staff oversee all aspects of the complaint process, including intake, investigation and adjudication. The EEOAAO is one of three intake avenues for complaints of discrimination, and it typically receives complaints from university employees. Students raise

\textsuperscript{9} Ibid.
\textsuperscript{10} Designation of responsible employee and adoption of grievance procedures, 14 C.F.R. § 1253.135(a).
discrimination issues with the Vice Chancellor for Students. In addition, UH employs a Gender Equity Specialist who also receives complaints. The Gender Equity Specialist’s office is physically located in the student services building to be more accessible to students; the position reports to the Chancellor’s Office. However, the grievance procedures for both students and faculty are the same (see “Grievance Procedures” section below).

3. Compliance Assessment

NASA’s compliance assessment focused first on the Title IX regulatory requirement to disseminate contact information for the Title IX Coordinator and her office. As all of the students interviewed during the on-site knew the Title IX Coordinator’s name and office, it is clear that for the programs reviewed the Title IX Coordinator has been effective in meeting this requirement.

While the NASA Title IX regulations do not provide further specificity regarding the role and effective functioning of the Title IX Coordinator, the U.S. Department of Justice (DOJ), which has oversight responsibility for all federal Title IX compliance and enforcement activities, has provided additional considerations for federal agencies evaluating recipient compliance with the Title IX Coordinator regulatory provision. These additional considerations appear in DOJ’s document, “Questions and Answers Regarding Title IX Procedural Requirements” (Title IX Q&A). For purposes of this review, NASA focused on the following areas identified in DOJ’s Title IX Q&A: 1) effective functioning regarding the administration and implementation of UH’s Title IX grievance process; 2) the provision requiring the training of UH faculty and staff; and 3) the authority and access of the Title IX Coordinator to university senior leadership needed to effectively perform roles and responsibilities. NASA reviewed these roles and responsibilities in light of interviews with the Title IX Coordinator, review of information provided, and the breadth and depth of actions taken regarding this review.

NASA finds that the Title IX Coordinator effectively performs her duties regarding the implementation and administration of the grievance process (see “Grievance Procedures” section below). The Title IX Coordinator possesses the skills and competencies necessary for the effective administration of the grievance process and related activities, including an in-depth knowledge of the Title IX regulation, a thorough knowledge of UH’s Title IX grievance procedures and processes, including the filing and investigative stages, and knowledge of UH personnel policies and practices. She possesses a ready knowledge of the details pertaining to complaint processing, e.g., determining jurisdiction, as well as the approximate number of grievances filed per year and the number currently in the system.

As we have noted, the Title IX Coordinator reports to the UH Office of the General Counsel. The regulatory provision on Title IX coordination does not specify a reporting structure. DOJ has advised agencies evaluating the effective functioning of the Title IX Coordinator’s role to consider whether the Title IX coordinator is provided “authority or access necessary to enforce compliance requirements.” In this regard NASA notes that, while it appears the Title IX Coordinator is sufficiently elevated in the organization to have the needed access to top leadership and has direct access to expert legal advice, having the Title IX Coordinator report to the General Counsel’s Office may create the appearance that the Title IX Coordinator does not function independently. NASA’s review did not find that the Title IX Coordinator lacks independence or that this reporting structure has resulted in concerns among complainants. Nonetheless, NASA is concerned that the reporting structure may have negative implications for the

11 14 C.F.R. § 1253.135(a).
12 See Executive Order 12250, 3 C.F.R., 1980 Comp. 298. Section 1-203 of the Executive Order states that “the Attorney General shall develop standards and procedures for taking enforcement actions and for conducting investigations and compliance reviews.”
13 This document is accessible at http://www.usdoj.gov/crt/coord/TitleIXQandA.htm.
effective functioning of the grievance procedures, due to the appearance issues created with this reporting structure. In light of this, UH may wish to consider revising its current reporting structure or to assure complainants that EEO/AA office functions independently regarding complaints processing.\textsuperscript{14}

Regarding the provision of training, NASA examined the training efforts that the Title IX Coordinator undertakes on a regular basis, since training is a critical part of the tasks and responsibilities of a Title IX Coordinator.\textsuperscript{15} The EEOAAO routinely provides training and awareness on Title IX and other equity matters for departments and programs campus-wide. For example, EEOAAO is currently piloting an online training module on sexual harassment. The programs under review, Physics, IfA, and HIGP, are all participating in the pilot and the Title IX coordinator reports that the feedback so far has been positive. The Title IX Coordinator also participates in the Teaching Assistant orientation and training for the Physics Department.

In addition, NASA notes that the Title IX Coordinator fully leveraged the opportunity afforded by NASA’s review to strengthen her office’s partnerships with the programs under review. For example, the Title IX Coordinator met with the heads of the programs to advise them on matters pertaining to gender equity, provided online training on gender related discrimination and harassment, and encouraged, in coordination with the program heads, all program faculty and students to take the training. In addition, the Title IX Coordinator participated in a presentation developed by a member of the IfA faculty on the need to ensure that the program was using multiple criteria in its admissions review process (see “Recruitment, Admissions, …” Section E below). The Title IX Coordinator worked closely with the program heads both before and after the review to ensure the provision of complete information and to address concerns regarding compliance.

Regarding the position of Gender Equity Specialist which reports to the Chancellor’s Office (see “Promising Practices” below), NASA notes that although the position is advertised as a campus contact for Title IX and gender-related issues, the incumbent stated during the interview that her actual role is to serve as a student advocate for issues related to sexual harassment; sexual assault and/or domestic violence. UH may wish to consider expanding the responsibilities of this position or alternatively, renaming the position to more accurately reflect the actual duties and responsibilities, e.g., student advocate.

\textbf{4. Recommendations}

To the extent that the EEO/AA office is not already doing so, it should expand its efforts across campus to ensure that contact information for the office and the Title IX Coordinator is known beyond the programs reviewed by NASA. For example, UH may wish to ensure that Title IX information is part of the orientation briefings provided to all students, including teaching assistants and other student employees when they arrive at the University and/or begin their work.

\textsuperscript{14} In this regard, UH informed NASA that, “Regarding the independence of the Title IX Coordinator: The issue of an independent EEO/AA Office has been discussed over the years. This has resulted in a decision that it would not be located in Human Resources (as is often the case). The EEO/AA Office initially reported to the UH President’s Office (formerly also the UH Mānoa Chancellor). To be more independent, it was moved to its current placement reporting to the Office of the General Counsel. There is a ‘firewall’ between the two offices, and the EEO/AA Office has its own budget allocation.” See Mie Watanabe, Notes on NASA’s UH Mānoa Report, Nov. 14, 2008.

\textsuperscript{15} See Title IX Q&A, “Designation of Title IX Coordinator – What factors should a recipient consider in designating a Title IX Coordinator?”
5. **Promising Practices**

a. **Innovative Infrastructure:** The UH System has a Title IX Coordinator at each of its campuses with the Title IX Coordinator at UH Manoa serving as a “coordinator of coordinators,” in the event of a system-wide discrimination issue. In addition, the Title IX Coordinator is assisted in her work by a full-time Gender Equity Specialist, who receives complaints and provides technical assistance to the UH community regarding gender equity issues.

b. **Collaborative Partnerships:** The Title IX Coordinator’s office has formed collaborative partnerships with UH administrative leadership that encompasses active participation on faculty search committees. For example, the Title IX Coordinator’s office conducts faculty search committee briefings, providing a variety of education and awareness materials. These include information on the Title IX Coordinator’s office, laws covering sex discrimination (including marital status, and pregnancy discrimination), and gender equity related publications, such as “Reviewing Applicants: Research on Bias,” by the Women in Science and Engineering Leadership Institute.

c. **Helpful Web Links:** The website for the Title IX Coordinator’s office links directly to the U.S. Department of Education Office for Civil Rights, among other federal and state links, helpful for any member of the UH community to learn more about their rights and protections under the civil rights laws.

d. **Dedicated Gender Equity Specialist:** UH has a dedicated full-time position for sexual harassment; sexual assault and/or domestic violence. Advocacy on sexual harassment, assault, and violence is a critical role and responsibility. UH’s recognition of this through a well-publicized, dedicated position is to be commended.

**B. Adoption of Title IX Grievance Procedures**

1. **Regulatory Requirements/Guidance**

The NASA Title IX regulations require that recipient educational institutions adopt and publish grievance procedures providing for prompt and equitable resolution of student and employee complaints alleging any action that would be prohibited by Title IX. The regulations do not specify a structure or format for the grievance procedures.

2. **Findings of Fact**

UH's Title IX grievance procedures are embodied in the “Discrimination Complaint Procedures for Employees, Students, and Applicants for Admission or Employment” (Complaint Procedures). In addition, UH Manoa has a separate “Sexual Harassment Complaint Procedure.” The Complaint Procedures were most recently updated in August 2002, and the Sexual Harassment Procedures in January 2006.

UH has two primary venues for complaint processing and receipt: the Title IX Coordinator’s office and the Office of the Vice Chancellor for Students. In addition, the UH Mānoa Chancellor’s Office employs a Gender Equity Specialist who also receives complaints.

According to the Title IX Coordinator, the university receives approximately 12 – 25 formal complaints per year and 15 to 30 informal complaints each year. In the programs reviewed, there have been only two

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16 Designation of responsible employee and adoption of grievance procedures, 14 C.F.R. § 1253.135(b).
17 Accessible at: [http://w3fp.arizona.edu/affirm/lnvproc.htm](http://w3fp.arizona.edu/affirm/lnvproc.htm).
18 Accessible at: [http://dos.web.arizona.edu/uapolicies/ouap5.html](http://dos.web.arizona.edu/uapolicies/ouap5.html).
complaints filed in the past five years, one formal and one informal. The formal complaint was based on an allegation of student-on-student harassment. The complaint was resolved with the removal of a teaching assistant from his position.

3. Compliance Assessment

NASA’s compliance assessment seeks to ensure that UH developed and is implementing procedures that afford grievances “prompt and equitable” resolution of student and employee complaints alleging any action that would be prohibited by the Title IX regulations. As the regulations do not provide any further specificity regarding the procedures, NASA consulted ED OCR and DOJ publications for additional guidance. For example, ED OCR states in guidance that “[a] grievance procedure . . . cannot be prompt or equitable unless students know it exists, how it works, and how to file a complaint.” Using this as a measure, NASA notes that the UH procedures are well disseminated both in print materials and on UH websites (see “Policy Dissemination” section below).

As the regulations do not specify a structure for the procedures, NASA looked to the DOJ Title IX Q&A for additional considerations on the basic components of effective, i.e., prompt and equitable, grievance procedures. For example, the Title IX Q&A states that recipient grievance procedures are a mechanism used to determine whether a particular act, policy, or practice of a recipient complies with Title IX regulations. The grievance procedures also provide the steps necessary to correct the policy or practice that does not comply with Title IX regulations. Additionally, recipients should inform the grievant of the right to file a discrimination complaint with an appropriate Federal agency, either simultaneously with the filing of an internal grievance or after the unsatisfactory resolution of a grievance.

Based on these considerations, NASA finds that the procedures and their implementation afford students prompt and equitable treatment. Specifically, the procedures are written clearly, with each step in the process set forth separately, such that individuals seeking to engage the process can easily understand how it works. In addition, the procedures expressly state that complainants are not limited to the university’s internal procedures but have rights under both federal and state laws, which have their own deadlines for filing of complaints. The procedures also expressly state that discrimination complaints may be filed concurrently with an external agency to meet state and federal agency deadlines without jeopardizing an individual’s right to a UH investigation.

Regarding implementation of the procedures, the various venues for complaint filing maintain complaint logs of formal complaints filed by students and employees. NASA notes that UH may wish to increase coordination efforts by the three offices with responsibilities for complaint processing to better facilitate

19 14 C.F.R. § 1253.135(b).
21 Title IX Q&A, “Grievance Procedures.” The Title IX Q&A states that for those recipients who do not have Title IX grievance procedures or for those recipients who want to refine existing procedures, the Department of Education’s guidance document, “Title IX Grievance Procedures: An Introductory Manual,” (Education Manual) provides some of the basic components for such procedures. This document is accessible through the U.S. Department of Education at http://eric.ed.gov/
22 Ibid.
23 Ibid.
ongoing trends analysis in complaint activity, target training needs, and routinely analyze and share results of the data.25

4. Promising Practices

NASA commends UH’s sexual harassment procedures. While this report is limited to UH’s activities under Title IX, if it has not already done so, the University may wish to consider broadening these procedures to cover all forms of prohibited harassment, e.g., harassment based on race, national origin.

C. Title IX Policy Dissemination

1. Regulatory Requirements

NASA’s Title IX regulations require grant recipients to take specific and continuing steps to notify students, employees, applicants for admission and employment, and unions or professional organizations having collective bargaining or professional agreements with the recipient, that it does not discriminate based on gender in the educational programs or activities that it operates, and that it is required by Title IX not to discriminate in such a manner.26

2. Findings of Fact

UH informed NASA that its Title IX policies and procedures are disseminated in print and electronic formats through oral presentations, workshops and online training programs, web sites, staff newsletters, and email announcements.27 The UH Manoa undergraduate and graduate catalogues contain UH nondiscrimination polices and procedures, as well as contact information for the Title IX Coordinator, the EEOAAO and the Gender Equity Specialist. The UH Manoa Schedule of Classes contains an EEO/AA policy statement.

The UH System web site maintains web pages for the EEOAAO, whose web site contains all non-discrimination polices and procedures. EEO/AA policies, including sexual harassment policies, are distributed to persons who subscribe to the policies and procedures email list. Information on Title IX policy is also disseminated in the “New Faculty Campus & Community Guide,” published by the Office of Faculty Development and Academic Support. In addition, EEO/AA captions are placed on University stationary, application forms, job announcements post on the “Work-at-U-H” website. UH also broadly disseminates a brochure on Gender Equity including information on how to file a complaint. NASA notes that at the time of the review the brochure did not include information on filing a complaint anonymously. However, UH is addressing this issue (see “Compliance Assessment” below).

25 See email from Mie Watanabe, Director, EEO/AA, to David Chambers, Senior Civil Rights Analyst (June, 11, 2008). In this regard, UH EEOAAO reports: “The EEOAA Office will initiate a yearly meeting with Student Judicial Affairs to discuss complaint patterns, problem areas, and effectiveness of procedures. This would achieve NASA’s objective in a meaningful way for our EEO programs.”

26 Dissemination of policy, 14 C.F.R. § 1253.140.

27 See University of Hawaii at Manoa Response to Title IX Information Request, March 3, 2008 (Hawaii Response), pp. 32-33 and Exhibits 14-34.
3. Compliance Assessment

NASA’s assessment of UH compliance with the regulatory provision requiring dissemination of Title IX policy was informed by relevant ED OCR and DOJ guidelines. This guidance emphasizes the need for recipient institutions to have “well-publicized” grievance procedures. ED states that “without a disseminated [sexual harassment] policy and procedure, a student does not know either of the school’s policy against and obligation to address this form of discrimination, or how to report harassment so that it can be remedied.” In addition, DOJ regulations make federal funding agencies and recipient institutions responsible for disseminating information materials, e.g., handbooks, manuals, pamphlets, to ensure program beneficiaries are aware of their rights pursuant to EO law.

Using these guidelines as a roadmap to assess compliance, NASA finds that UH is in compliance regarding Title IX policy dissemination. UH is doing an excellent job of disseminating its Title IX policy and procedures, utilizing numerous print and electronic media to ensure broad and easy access to critical information (see “Findings of Fact” above).

Finally, the UH EEOAAO indicates that it will edit its gender equity information sheet to include an anonymous option for requesting information. In this regard the EEOAAO notes that it has a longstanding practice of responding to anonymous requests for information via telephone, email, and in person. A link to the EEOAAO is on all UH System web pages and providing access and information at all times. Anonymous individuals have used the eeo@hawaii.edu email address to request information.

4. Recommendations

a. UH EEO/AA should notify the campus community regarding the enhancements to the equal opportunity efforts undertaken prior to and following the instant review, e.g., prominently placing information regarding Title IX on their websites (see “Promising Practices,” below).

b. UH may wish to expand individual distribution of its EEO/AA polices and procedures beyond the email list of subscribers to the entire campus community.

5. Promising Practice

Effective Use of Websites: All three of the programs have placed detailed information regarding gender equity and non-discrimination prominently on the homepages of their websites. For example, in addition to a general policy statement, the programs have prominently placed a number of links to resources and information regarding Title IX both internal and external to UH, e.g., UH sexual harassment policies and procedures and on-line training, and the NASA brochure on equal opportunity and nondiscrimination.

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30 OCR, Revised Sexual Harassment Guidance, § V(D), “The Role of Grievance Procedures.”
31 Public dissemination of Title VI information, 28 C.F.R. § 42.405(c).
32 Watanabe
D. Title IX Self-Evaluation

1. Regulatory Requirements

The NASA Title IX regulations required recipient institutions to conduct a Title IX self-evaluation by September 29, 2001 and to keep the self-evaluation on file for three years. While UH is not obligated to conduct a further Title IX self-evaluation, such evaluations are very helpful to ensure, for example, that selection criteria or academic practices do not adversely impact students. They also provide an opportunity to evaluate trends over time and to develop mechanisms for addressing emerging issues.

2. Compliance Assessment

The UH responses to NASA’s information requests under the instant review constitute a thorough Title IX self-evaluation of the IfA, the HIGP, and the Physics Department regarding two key components: admissions and treatment of students.

3. Recommendations

NASA recommends that the programs reviewed continue to examine and evaluate admissions, enrollment, retention rates, graduation rates, and other statistical data on a regular basis as required under NASA’s regulations. This type of ongoing analysis will enable the Department to stay informed on emerging trends and react appropriately.

E. Recruitment, Admissions, Enrollment, Retention and Completions

1. Regulatory Requirements

The NASA Title IX regulations state that recipients may not discriminate on the basis of sex in admissions and recruitment. Consistent with this requirement, NASA examined the HIGP, IfA, and the Physics Department for graduate male and female participation rates in the areas of admissions, acceptances, enrollments, graduate fellowships, teaching assistantships, and research assistantships. NASA requested and received five years of data from the University in each of these areas for the three Programs under review. In addition, NASA extracted data from the National Center for Education Statistics (NCES) to compare UH graduate physics completions with completion rates of other university graduate physics programs for academic years (AY) 2003 through 2007.
2. Findings of Fact

a. Physics

NASA reviewed five years of application rates, acceptance rates and matriculation rates of male and female graduate Physics students at UH. Over the five year period, women comprised 21 percent of the applicants, with the percentage of female applications declining for AY 2004-05 (16 percent) and AY 2006-07 (15 percent). Acceptance rates by the Physics Department, of those who applied, were comparable for males (59 percent) and females (58 percent) over the five year period.

Matriculation rates (students that enrolled after being accepted by UH) were lower for males (33 percent) than females (38 percent) during the five year period. However, over the past three academic years, female matriculation rates have declined each year. In the most recent year reported, AY 2006-07, only five female students applied, three were accepted, and none matriculated. The year before, 13 women applied, four were accepted and one matriculated. Thus, in a span of two academic years, only one woman entered the graduate Physics Program. The declining number of female applications and matriculations has resulted in lower enrollment rates for women in AY 2005-06 (16 percent) and 2006-07 (17 percent), down from a high of 33 percent in AY2002-03.

During the five academic years reviewed, UH Physics had 25 graduate completions (doctorate and master’s level combined).38 Of the 25 completions, 17 (68 percent) were male students and 8 (32 percent) were female students. The completion rate for female students compares favorably with the 22 percent completion rate for female students at similar Physics programs in the United States.39

b. IfA

In the IfA, women comprised 41 percent of the applicants over the past five academic years. Acceptance rates by the IfA, of those who applied, were comparable for males (20 percent) and females (19 percent). During the same five year period, female applicants matriculated at a higher rate than males applicants (31 percent and 24 percent respectively). In the most recent year of the period reviewed, 42 percent of females who were accepted by the IfA entered the Program. The higher matriculation rates are reflected in the enrollment rates of women in the Astronomy Program. In AY 2006-07, the graduate Program was 42 percent female, the highest percentage of the five years reviewed.

Based on the National Center for Education Statistics data (IPEDS), the UH IfA Program had 47 completions during the five academic years reviewed, including 16 females (34 percent). The UH female completion rate is slightly lower than, but comparable to the 36 percent female completion rate at similar astronomy programs.40

38 Ibid. Completions are defined as degrees awarded regardless of length of time taken by student to earn degree. Graduations are defined as completions within 150% of normal completion time with allowable exclusions (see IPEDS glossary at: http://www.nces.ed.gov/ipeds/glossary/).
39 Similar physics programs were selected from IPEDS by first selecting all public universities that confer both doctorate and master’s degrees in physics. To more closely match the UH Physics Program in terms of size, the resulting list of approximately 105 schools was narrowed by removing the quartile of largest programs (based on numbers of completions).
40 Similar astronomy programs were selected from IPEDS by first selecting all public universities that confer both doctorate and master’s degrees in astronomy. Several private institutions (i.e., Cornell, Princeton, Harvard, California Institute of Technology, University of Chicago) were added to the list, based on comparator information provided by UH, resulting in a comparison list of approximately 25 astronomy programs.
c. HIGP

In HIGP, men applied for the graduate program at lower rates than women (42 percent and 58 percent respectively) over the past five academic years, but were accepted (as a percent of those who applied) by HIGP at higher rates than female applicants (34 percent vs. 21 percent). Female acceptance rates were especially low during AY 2004-05 (two of 15 applicants) and AYs 2005-06 and 2006-07 (two of 13 applicants each year). However, female enrollment in the graduate HIGP has remained constant (average of 8 females per year) while male enrollment has decreased the past two academic years (down from average of 15 to average of 9).

According to data provided by UH, twice as many males as females graduate from the Program. HIGP averaged 1.2 female graduates per year and 2.6 male graduates per year, from 2003 through 2007. Due to the specialized nature of HIGP, NASA is not able to make a valid comparison of graduation rates or completions with similar programs. \[41\]

d. Faculty Recruitment

NASA examined the number of female faculty within each of the three Programs reviewed, as well as recent recruitment efforts. The Graduate Physics Program had no female faculty at the time of the on-site review. Because faculty search committees are comprised of current Physics faculty members, the two search committees assembled over the past five years were all male. The one search that had been completed yielded 69 applicants, including three women (4 percent). The one hire was male.

At the time of the on-site review, the IfA had 46 graduate faculty members, including seven women (15 percent). Over the past five years, IfA conducted nine search committees and made nine faculty hires. All nine search committees had at least one female member. The nine searches yielded 198 total applicants, including 18 females (9 percent).

HIGP had 33 graduate faculty members at the time of NASA’s on-site review, including six women (18 percent). Over the past five years, HIGP conducted five search committees for new faculty. Three of the five search committees had no female members. The five searches yielded six candidates, including one woman (17 percent). During AY 2006-07, all three of the HIGP faculty considered for tenure were women, and all three women received tenure.

3. Compliance Assessment

NASA finds the UH Physics and Astronomy Department, the IfA, and the HIGP to be in compliance with Title IX regulations in terms of their recruitment, admissions, enrollment, financial assistance and completion rates. None of the students interviewed stated a concern, with regards to gender bias, in the recruitment or admissions process. Assistantships provided to students were gender equitable, both in numbers and amounts. Female completion rates in the graduate Physics Program at UH are above the national average, and female completion rates in the graduate IfA are comparable to the national average.

NASA believes, however, that the Programs can strengthen their compliance. Specifically, NASA is concerned with the direction in which many of the data are trending. In the graduate Physics Program, female applications and matriculation rates are trending downward. Program officials acknowledged that they have never looked at admissions data by gender to evaluate trends because they never perceived there

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\[41\] HIGP students receive degrees from the Geology and Geophysics Department. Within IPEDS, there is no way to identify the HIGP students from students receiving degrees in geology or geosciences. The same is true for the four comparator programs suggested by UH.
to be a problem. They have not considered ways to attract more female applicants or to encourage more females to matriculate and/or to stay in the program. Recruitment to the graduate Physics Program is primarily through the Department’s web site.

The female graduate completion rate in the UH Physics Program is likely to decline in the future if current female application and matriculation rates continue. Ongoing monitoring and evaluation of applications, acceptances and matriculations by the Physics Department are warranted. The Chair needs to take appropriate action to ensure the downward trends for women entering the Department do not continue (see “Recommendations” below).

Within HIGP, the Interim Director offered three possible explanations for why females have applied at higher rates than males, but have been accepted at lower rates. First, he explained that because the cost of living in Hawaii is so high, the Program accepts only 15 students per year, who can be supported with assistantships. The Program now has three young, successful female faculty members who have recently been speaking at many conferences and recruiting female students. Female students are therefore applying at larger numbers to HIGP, but the Program can still only support 15 students per year.

Secondly, the Director explained that the faculty members with research grants are reluctant to hire research assistants unless they have had a chance to meet them and determine that they have sufficient life skills to make it in the program, in addition to good research skills. HIGP has recruited for many years at the American Geophysical Union National Conference in San Francisco, and they meet few women at the Conference. In the Director’s opinion, either women do not attend the Conference, and/or they are not introducing themselves to the male faculty recruiters.

Third, the Director explained that HIGP is not a graduate degree program but rather an institute involving independent research projects in fields as diverse as marine geology, geodynamics, volcanology, meteoritics, lunar science, and remote sensing. This complicates the outreach efforts to attract women. For example, if female applicants are attracted to apply to HIGP but they select fields with fewer (or no) funded opportunities for research assistantships, this will impact the overall acceptance rate for women.

NASA is still troubled by the fact that more women are applying to the program which should result in more women being accepted. Faculty with research funding must find ways to establish relationships with prospective female students, since that was stated to be an essential requirement for offering assistantships to students (see “Recommendations” below).

The Director is committed to addressing this concern by: 1) advising principal investigators at the start of the school year of HIGP’s affirmative action recruitment goals for female graduate students and faculty; 2) working with the Graduate Admissions Committee of the Geology & Geophysics Department to track student interests and to identify ways to improve acceptance rates for female applicants; and 3) publicizing to prospective applicants the fields that tend to have more opportunities for graduate students. NASA also notes in this regard that the HIGP Director was very receptive to suggestions for enhancing equal opportunity efforts, for example, revising the HIGP website to show greater gender diversity.

The most proactive program with regard to ensuring equal opportunity regardless of gender in recruitment, admissions and retention is the IfA. For example, an IfA faculty member provided NASA with a presentation on the use of the Physics GRE in admissions in Physics programs nation-wide. The faculty member stated that when she first joined the IfA Graduate Admissions Committee, she noticed some female applicants with outstanding qualifications (e.g., GPA, recommendations), were not making the initial cut because of their Physics GRE scores. This faculty member immediately insisted that admissions reviewers consider many factors when reviewing admissions applications and give each factor its appropriate weight, to ensure that no one factor (i.e., the GRE score) is given undue importance. She
presented her GRE research to the Admissions Committee, with data on the Physics GRE broken down by gender, to better inform the Committee’s decision-making (see Promising Practices, below).

With regard to faculty recruitment, the IfA has demonstrated efforts the other two Programs can emulate to make faculty searches more gender equitable, e.g., including at least one woman on every faculty search committee. In fact, the Physics Program had taken steps, by the time of the NASA on-site visit, to change its internal rules so that faculty from other Programs (e.g., Astronomy) could serve on its faculty search committees.

In the HIGP Program, four of the last five faculty searches yielded only one applicant each (all male). The Director stated that is because of the “specialized nature of the duties and expertise for each position.” HIGP needs to find a way to broaden its searches to include more applicants (male and female) with the required specialized expertise. According to the UH Title IX Coordinator, the HIGP Director has commented on his programs’ heightened awareness of gender equity issues since NASA’s visit and the need to recruit women candidates for a tenure-track faculty position. This has translated into proactive steps for HIGP. For example, HIGP’s most recent faculty search committee includes tenured women faculty; and as part of its efforts to reach out to all potential qualified candidates HIGP posted the job vacancy on the Women in Geosciences Society web site.

4. Recommendations

a. NASA reiterates the recommendation made under Section D on page 13. The Programs reviewed should continue to examine and evaluate admissions, enrollment, retention rates, graduation rates, and other statistical data on a regular basis. The graduate Physics Program should take appropriate action to reverse downward trends for female students entering the Program, such as:
   • Ensure gender diversity on the Department website in photos, feature stories, etc., since the web site is the Department’s primary method of recruiting.
   • Engage in targeted recruitment at venues likely to have high numbers of qualified female applicants.
   • Survey students who are accepted but do not enroll to find out reasons why.

b. HIGP should commit recruitment resources to venues other than the annual American Geophysical Union National Conference, since the Director states that females are not well represented at this Conference. HIGP research faculty need to recruit where they can meet and establish relationships with prospective male and female applicants. Failure to do so creates a de facto impediment for women wanting to enter the program. HIGP should also consider other ways, besides face-to-face interviews, to determine whether students have sufficient life skills to succeed in the Program, e.g., via student essays, phone calls, and emails.

c. Physics and HIGP should continue to increase efforts already initiated to expand the reach of faculty search committees and ensure gender diversity on the search committees.

d. The Geophysics and Geology Department should share information with other science departments and programs regarding its exit and alumni surveys (see “Promising Practices,” below). Surveys developed should include questions that explore perceptions of the culture, particularly with regard to gender issues, within UH and the given department/program.

5. Promising Practices

a. Admissions Criteria Review: The IfA program conducted a careful assessment of the Physics GRE as an admissions criterion, spearheaded by a single faculty member who provided data on gender and the Physics GRE to her colleagues. This effort helped to ensure the use of multiple criteria in admissions review and is
an excellent example of a proactive self-evaluative effort regarding critical program processes, e.g., admissions, to minimize the potential for the process to negatively impact highly qualified applicants.

b. Faculty Review Committee: This IfA committee is charged with creating more equitable representation between male and female faculty members and periodically reviewing issues such as compensation and bonuses.

c. Web Site Information: All three Programs have added a link to their web sites titled, “Gender Equity and Non-Discrimination Policy.” The link leads to helpful information regarding equal opportunity policies and resources, including the Office of the Gender Equity Counselor and the NASA brochure on non-discrimination in federally-assisted programs.

d. Student Surveys: Regarding efforts to better address retention issues, the Geology and Geophysics Department, the parent department of HIGP, conducts exit surveys with its students and surveys of their alumni. Utilization of these tools allows the Department to capture important information from these targeted groups regarding UH and/or the Department.

F. Academic Environment: Advising, Career Counseling, Research Participation and Classroom Experiences

1. Regulatory Requirements

The NASA Title IX regulations provide that a recipient shall not, on the basis of sex, exclude from participation in, deny the benefits of, or otherwise limit any person in any advantage or opportunity pertaining to academic, extracurricular, research, occupational training, or other education program or activity operated by the recipient.42 The Title IX regulations explicitly state that a recipient may not discriminate on the basis of gender with regard to career counseling or guidance.43

In addition, the Title IX regulations incorporate by reference the NASA Title VI regulatory provision prohibiting a recipient from utilizing methods of administration which have the effect of defeating or substantially impairing accomplishment of the objectives of the program for an individual based on sex.44 On the basis of these provisions, NASA examined the overall academic environment in the Physics Department, including academic advising, career counseling, research participation and classroom experiences.

2. Findings of Fact

a. Academic Advising and Career Counseling

NASA’s interviews with faculty and students regarding graduate advising focused on the experiences of students in the advising process. The vast majority of male and female graduate students interviewed described positive and productive advising relationships and stated that they observed no differences based on gender in the way they were advised. The consensus among faculty and students that emerged during the interview process was that where tensions existed in advising relationships they were often based on personality conflicts and not gender.

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42 Education programs or activities, 14 C.F.R. § 400(a), (b)(7).
43 Counseling and use of appraisal and counseling materials, 14 C.F.R. § 1253.425.
44 Enforcement procedures, 14 C.F.R. § 605.
Further, faculty and students did not see personality traits such as assertiveness or confidence as a function of gender but rather individual personality. When asked whether she observed issues regarding confidence in ability among her female advisees, one professor stated that in her experience it was just as often male students who needed encouragement.

b. Research Participation/Classroom Experiences

Regarding research participation, NASA explored access to lab equipment, for example, access to telescope time in the IfA. Two female IfA students indicated during interviews that they had not always received permission on requests for telescope time while none of the three male graduate students interviewed indicated telescope time denials. NASA investigated further by requesting telescope time logs for the past three years and by asking the IfA about its procedures for dispositioning telescope time requests. Based on NASA’s review, female students received 71 percent of the telescope time they requested, compared to males receiving 66 percent of the time they requested. Interestingly, however, females requested, on average, only 5.4 hours of time compared to an average of 7.3 hours of time requested by males. Likewise, females received an average of 3.9 hours of time per request, compared to an average of 4.8 hours of time received by males per request. IfA procedures for awarding telescope time are clearly written and the time logs do not indicate differential impact based on gender. However, based on the percentage of telescope time allocations, female students may need to be advised to request more time.

c. Overall Academic Environment

The three programs reviewed are taking proactive steps to create welcoming environments to a diverse student body. The Director of the IfA noted that when he began his tenure eight years ago the faculty focus was entirely on research. He changed the focus from pure research to include teaching, student advising and the academic environment for students (see “Promising Practices,” below). As a result, IfA in particular among the programs reviewed, takes a number of proactive steps to make the environment as welcoming as possible to all students, such as weekly morning coffee get-togethers in which the students have an opportunity to interact with the faculty on an informal basis. Regarding the climate for women in the classroom and the lab, one HIGP professor stated that she feels it’s important to provide a “nurturing environment” for all students, a view that is entirely consistent with notions of gender equity.

During interviews, one student raised a concern regarding recognition of the role of female professors working on high-visibility team projects. This may illustrate the need for ongoing dialogue between faculty and students regarding gender issues that may impact the program environment.

In addition, at the time of NASA’s review, the Physics program had no female faculty members, as noted above in Section E, while IfA and HIGP had 15 and 18 percent female faculty respectively. Several female students interviewed stated that the presence of female faculty and role modeling opportunities provided by female faculty were important to them. NASA is concerned that the lack of female faculty, particularly in the Physics Department, may have a negative impact on the environment and may contribute to lower program application rates among women.

3. Compliance Assessment

NASA examined whether students were treated differently or otherwise limited, on the basis of gender, with regard to academic advising, research participation and in their classroom experiences, including whether there was any indication of sexual harassment by faculty or graduate students in positions of responsibility. The review indicated no differences between males and female students regarding advising and career counseling. The review indicated no differences between male and female students regarding lab participation or classroom experiences. Also, as noted, where issues regarding inappropriate gender
related conduct have arisen, the program involved has handled them appropriately and effectively in partnership with the Title IX Coordinator’s office.

4. Recommendation

The Physics Department may wish to consider applying for a National Science Foundation ADVANCE grant. ADVANCE is a program designed to assist university STEM programs to increase the number of female faculty.

5. Promising Practices

a. UH Commission on the Status of Women: The UH Commission on the Status of Women, formed in 1972, advises the UH President on issues concerning women – faculty, staff and students on all campuses. Examples of issues addressed by the Commission include: child care, campus safety, equitable practices in hiring, pay, promotion and tenure, recourse for sexual harassment, and compliance with the mandates of affirmative action and equal opportunity.

b. Teaching/Advising and Environment as Priorities: IfA leadership made a conscious decision to focus on teaching, student advising, and the academic environment for students. The IfA Director and top program leadership maintain open door policies. IfA requires all faculty to teach and take on student advisees. IfA also implemented a Research Undergraduate Program to mentor and engage undergraduate students who have an interest in pursuing a graduate degree in astronomy. Faculty are encouraged to be engaged with students regarding program issues, with one female faculty member hosting a monthly lunch for faculty, graduate students and post doctorate students interested in women’s issues which provides a valuable support system for participants.

G. Parental/Marital Status (“Family Friendly” Policies)

1. Regulatory Requirements

The NASA Title IX regulations include a detailed provision on matters pertaining to marital and parental status. Generally, under the regulations, a recipient may not apply any rule concerning a student's actual or potential parental, family, or marital status that treats students differently on the basis of sex. Regarding pregnancy and related conditions, the regulations state that a recipient may not discriminate against any student, on the basis of the student's pregnancy, childbirth, false pregnancy, termination of pregnancy, or recovery, unless the student requests voluntarily to participate in a separate portion of the program or activity of the recipient.

2. Findings of Fact

UH reports that no graduate students in the programs reviewed requested leave for childbearing and/or dependent care in the past five years. NASA’s review of UH’s information responses and interviews with faculty, graduate and undergraduate students indicate that the programs reviewed are generally supportive of family-friendly concerns, and have been responsive to the challenges presented by marriage and parenting.

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45 Marital or parental status, 14 C.F.R. § 1253.530.
3. **Compliance Assessment**

NASA examined UH policies and student experiences in the Physics Department regarding parental/marital status in light of relevant regulatory provisions. NASA’s review did not indicate different treatment, impact, or other limitation on program participation based on gender with regard to the University’s or the Physics Department’s policies relating to parental or marital status.

H. **Safety**

1. **Regulatory Requirements**

The NASA Title IX regulations provide that a recipient shall not, on the basis of sex, limit any person in any advantage or opportunity pertaining to academic, extracurricular, research, occupational training, or other education program or activity operated by the recipient. The Title IX regulations incorporate by reference the NASA Title VI regulatory provision prohibiting a recipient from utilizing methods of administration which have the effect of defeating or substantially impairing accomplishment of the objectives of the program for an individual based on sex.

2. **Findings of Fact**

Concerns around physical safety in the program buildings were mentioned by several students and faculty during interviews. For example, in IfA, NASA heard that there were several recent burglaries, and the program has requested security but not received security cameras. Also it does not appear that the doors are consistently locked after 5 p.m. in the HIGP program building, and sometimes “people who are not supposed to be there have turned up.” Also there appeared to be little knowledge of available services, e.g., night-time escort services

3. **Compliance Assessment**

NASA examined UH policies and student experiences in the Physics Department regarding safety in light of relevant regulatory provisions. While concerns were expressed by both males and females regarding safety, NASA’s review did not indicate that any student’s program participation was limited based on gender with regard to UH or safety/security policies and procedures.

III. **CONCLUSION**

NASA finds UH to be in compliance with the Title IX regulations. While this report includes recommendations to assist UH in continuing to ensure EO regardless of gender, overall we find that UH is doing an exceptional job of meeting EO requirements regarding its Title IX coordination, grievance procedures, policy dissemination, and self-evaluation efforts.

Both prior to and since NASA’s on-site Title IX review, the HIGP, IfA and the Physics Department, have taken a variety of actions to advance gender equity in their programs. These actions demonstrate an effective partnership with the Title IX Coordinator’s office, as well as a proven commitment to enhancing efforts to ensure equal opportunity regardless of gender and to creating a more gender diverse academic environment. NASA will include the promising practices developed by these programs and other practices of UH in its forthcoming technical assistance document on promising practices.

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46 Education programs or activities, 14 C.F.R. § 1253.400(b)(7).
47 Specifically discriminatory acts prohibited, 14 C.F.R. § 1250.103-2(a)(3).