University of Colorado at Boulder
Title IX Compliance Report

Department of Astrophysical and Planetary Sciences

Office of Diversity and Equal Opportunity
February 2011
# TABLE OF CONTENTS

## I. INTRODUCTION

A. Background ........................................................................................................................................................................ 3

B. Objectives and Scope .......................................................................................................................................................... 3

C. Methodology ......................................................................................................................................................................... 4

## II. COMPLIANCE REVIEW ANALYSIS

A. Designation of Responsible Official for Title IX Coordinator and Enforcement ......................................................... 5

B. Adoption of Title IX Grievance Procedures and Title IX Policy Dissemination .............................................................. 10

C. Title IX Self-Evaluation .......................................................................................................................................................... 17

D. Recruitment and Outreach, Admissions, Enrollment, Degrees Earned, and Faculty Recruitment ........................................ 18

E. Program Administration and Academic Environment ........................................................................................................ 21

## III. CONCLUSION ..................................................................................................................................................................... 28

## IV. APPENDIX: SUMMARY LITERATURE REVIEW ........................................................................................................... 29
I. INTRODUCTION

NASA conducted a compliance review of the University of Colorado at Boulder (UCB or the University) Department of Astrophysical and Planetary Sciences (APS, the Department, or the program), to ensure that beneficiaries of NASA grants have equal opportunity, without regard to sex, to pursue, participate in and benefit from academic research, career development opportunities, extracurricular 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.¹

A. Background

NASA Title IX regulations provide for periodic review of NASA grant recipients.² These regulations became effective in November 2000. NASA’s Title IX compliance program received further impetus with the July 2004 report of the Government Accountability Office (GAO), which recommended that Federal agencies conduct onsite compliance reviews.³ In addition, NASA’s 2005 authorizing legislation requires the Agency to conduct at least two Title IX compliance reviews annually.⁴ NASA has been involved in many Title IX related compliance activities since the regulations were issued in 2000, conducting a number of limited-scope “desk-audit” as well as onsite reviews of grant recipients.

B. Objectives and Scope

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

Objective 1

Evaluation of UCB’s compliance with NASA Title IX regulations, specifically to:

- Assess the Title IX Coordinator’s role and functioning; confirm the existence of Title IX policy and procedures and the quality of their dissemination; evaluate Title IX grievance procedures and the effectiveness of their implementation; and review Title IX self-evaluation efforts, specifically regarding the UCB program under review; and

- Evaluate the APS program’s provision of equal opportunity regardless of gender in the following areas of program administration: student recruitment, outreach, admissions, enrollment, retention, academic advising, research participation, classroom and lab experiences, policies/procedures, and

¹ 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; NASA Policy Directive 2081.1A, Subject: Nondiscrimination in Federally Assisted and Federally Conducted Programs of NASA - Delegation of Authority.
³ 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).
⁴ See NASA Authorization Act of 2005, 42 U.S.C. § 16798(b). Note that NASA’s most recent authorizing legislation does not include this provision; however, as the original provision had no sunset clause, we continue to seek to meet the 2005 requirement.
student experiences relating to parental/marital status ("family friendly" policies) and physical safety of the program environment, and, finally, recent faculty recruitment efforts.

**Objective 2**

Identification of promising practices of UCB and the APS program designed to promote gender equity, specifically to:

- Describe efforts consistent with the recommendations and focus of the July 2004 GAO report; and
- Determine the extent to which promising practices are actually helping to create greater gender equity and diversity in the program, for both students and faculty.

**C. Methodology**

1. **Pre-onsite Review Activities**

NASA developed a Title IX compliance review plan (CRP) to identify relevant regulatory requirements, potential issues and 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 (OCR), the lead agencies on Title IX investigations. In addition, NASA developed a Title IX literature review to better understand concerns regarding gender and STEM as well as strategies to address such concerns, including Title IX compliance efforts in the STEM context. (See Appendix: Summary Literature Review).

The CRP identified two focal points for compliance assessment: 1) Title IX procedural compliance requirements; and 2) program administration, that is, policies, procedures, and practices affecting the academic environment (see “Objectives,” above). The CRP also identified the methods by which needed information would be gathered from recipients, including: information requests for statistical data and relevant policies and procedures, and an on-site visit to interview university officials, program faculty, and students.

2. **On-site Compliance Review Activities**

The NASA compliance team conducted an on-site review of the UCB APS Department on April 19-22, 2010. During its visit, the compliance team conducted one-on-one interviews with three female APS faculty members and five male APS faculty members, including the APS Department Head. The compliance team also interviewed the UCB Title IX Coordinators and their lead staff persons: one assigned to student-related compliance and the other assigned to faculty and staff-related compliance, including complaint and grievance processing. The compliance team also conducted one-on-one interviews with ten APS graduate students (six females and four males), three female post doctorates, and four undergraduates (two female and two male).

**II. 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. Designation of Responsible Official for Title IX Coordination and Enforcement

1. Regulatory Requirements

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

2. Findings of Fact

The role of Title IX coordinator is officially held by the Director, Office of Discrimination and Harassment (ODH). However, from a functional perspective, the role is vested in two officials: the Director, ODH and the Director, Office of Student Conduct (OSC). The ODH is responsible for addressing discrimination and harassment allegations, according to its website, when the alleged harasser is an employee. In instances where the alleged harasser is a student, the Office of Student Conduct has responsibility for addressing the matter. Both offices have roles and responsibilities regarding allegations of discrimination and harassment, with functional oversight of the complaint processes divided between the two.

The coordination role is similarly bifurcated between the two offices in another important area: training, education, and awareness activities. The ODH handles this role for faculty and staff, while the OSC handles it for students. Both offices explained their roles in this regard in some detail. For example, the ODH informed NASA that it has worked with outside consultants to further the awareness of sexual harassment issues in the workplace and at the school. The ODH provides training to UCB employees on the policies that are enforced by the ODH, which includes training on sexual harassment, and protected class discrimination. The trainings are tailored to specific employee populations, including teaching faculty and instructors, staff and research faculty, managers, student employees, and teaching assistants.

OSC undertakes similar efforts for the general student population, i.e., students who are not also University employees. Notably, the OSC Website homepage includes a prominently placed drop-down menu with a number of options, including “Discrimination and Sexual Harassment Policy Training.”

3. Compliance Assessment

a. Title IX Coordinator Contact Information Dissemination

NASA’s compliance assessment focused first on the Title IX regulatory requirement to disseminate contact information for the Title IX coordinator and her office. NASA notes that contacting the Director, ODH, and the Director, OSC is very easy for students who have found the Websites for these offices, as quick links to email addresses of the Directors and staffs of these offices are provided. It also appears both offices’ Websites are readily accessible from the UCB home page without having to know the office’s name. In this regard, UCB has informed NASA that:

5 Designation of responsible employee and adoption of grievance procedures, 14 C.F.R. § 1253.135(a).
6 At the time NASA conducted, its review this was the Office of Student Conduct. However, UCB informed NASA of the name change in its comments on the draft version of this report. See Michelle Krech, Assistant University Counsel, letter to Sharon Wagner, Assistant Director, Program Planning and Evaluation Division, and David Chambers, Senior Civil Rights Analyst, re: University of Colorado at Boulder, Department of Astrophysical and Planetary Sciences, January 24, 2011 (hereafter cited as Krech letter).
7 This page is accessible at: http://www.colorado.edu/studentaffairs/studentconduct/training.html
“The ODH and OSC websites are currently readily accessible from the University’s home page via use of the search engine. For example, when keywords such as ‘discrimination’ or ‘harassment’ are entered into the search box, the ODH website, the OSC website, and the Discrimination and Harassment Policy are listed among the results. The University believes that students may be more likely to utilize the search engine than the directory to find information. Nonetheless, the University is currently in the process of redesigning its website and will include consideration of how access to ODH and OSC website resources could be further improved.”

NASA commends UCB for these ongoing efforts to improve dissemination of Title IX and other anti-discrimination policy.

During the interviews, the compliance team worked to determine the extent to which students, faculty and staff were aware of the Title IX Coordinator, her office and the purpose of her office. The compliance team found that those interviewed did not know who the Title IX coordinator was by name. However, most were aware of the complaint program and were generally aware of the role of Title IX in athletics, if not academics.

Students interviewed stated that while they did not know the name of the office to go to if they had a concern; they felt confident they could find it online. This is a common response heard from students at large universities when asked if they know the name and contact information of the Title IX coordinator or her office. However, given the steps that UCB has already taken, one would expect that at least some of the faculty and students interviewed would be familiar with the name of the Office of Discrimination and Harassment.

Also, given that UCB has two offices with formal responsibilities for intake and processing complaints, one would expect familiarity with one or the other. In this regard we note that several students, when asked if they were being harassed by another student(s), stated that they would go to the Division of Student Affairs. Thus, it appears there is some knowledge on the part of students about the available avenues for redress. However, given the coterminous roles and responsibilities of the two offices regarding receipt and processing of discrimination complaints, UCB is obligated to disseminate contact information regarding both. Based on NASA’s limited review, the extent to which the University has been effective in this regard is not clear (see “Recommendations” below). However, in its responsive comments to the draft of this report, UCB states that: “while the University has two distinct offices that receive and process complaints, if a complaint is initially provided to the incorrect office, both the ODH and OSC automatically refer complaints to the appropriate office. Student trainings stress that no matter which office is initially contacted, the complaint will be appropriately routed.” NASA recognizes this as an appropriate means of clarifying for students that the two venues for complaint receipt are working in coordination.

b. Effective Title IX Coordination: Oversight of the Grievance Process, Authority/Access to Senior Leadership, and Training Efforts

While the NASA Title IX regulations do not provide further specificity regarding the role and effective functioning of the Title IX Coordinator’s role, 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

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8 Krech letter, p. 2.
9 Ibid.
regulatory provision.10 These additional considerations appear in DOJ’s document, “Questions and Answers Regarding Title IX Procedural Requirements” (Title IX Q&A).11 For purposes of this review, NASA focused on the following areas, in addition to the regulatory requirement for contact information dissemination, identified in DOJ’s Title IX Q&A:

- Effective functioning, including skills and competencies, regarding the administration and implementation of UCB’s Title IX grievance process;
- The authority and access of the Title IX Coordinator to university senior leadership needed to effectively perform roles and responsibilities; and
- Appropriate training of faculty, staff, and students.

(i) Effective Oversight of the Grievance Process

Regarding the implementation and administration of the grievance process (see “Grievance Procedures” section, below), NASA finds that, indeed, a primary focus of recent Title IX efforts has been the processing of discrimination and harassment complaints. As explained above, both the ODH and OSC play critical roles in complaints processing. The level of attention paid to concerns in this regard was particularly evident in interviews with officials from both offices. One small point: NASA notes that the use of the term “alleged harasser” on the ODH website seems to suggest that all allegations pertain to harassment and not other forms of discrimination.12

Based on UCB’s responsive information, including resumes of those staff from both offices with Title IX coordination responsibilities, and interviews with these staff, NASA found no concerns regarding the appropriate knowledge base, expertise, and proven ability to properly implement the UCB internal grievance procedures.

Moreover, both offices keep annual statistics on a number of complaints-related data. This includes the types of complaints received; the findings from those complaints, whether they are handled through a formal investigation or informally, depending on the severity of the complaint; and the departments they come from. Additionally the ODH oversees an “ODH Resource Committee”, which meets quarterly to review trends and to strategize on proactive means to address problems arising from discrimination and harassment. During the past year, the OSC presented on trends in classroom behavior as it relates to discrimination and harassment. Last month, Disability Services presented on trends in disability complaints and other related issues. This is one way that ODH and OSC partner in sharing data and trends. They also coordinate throughout the year with one another on issues of gender and other forms of discrimination in order to best address complaints.

Given the coterminous roles of the two offices, a partnership between the two that is both coordinative and consultative in nature would be expected, although not required. NASA commends the two offices for the strong collaborative relationship they share, as such a relationship helps to enhance the efficiency of the two offices (see “Promising Practices,” below).

10 See Executive Order 12250, 3 C.F.R., 1980 Comp. 298. Section 1-203 of the Executive Order states that “[t]he Attorney General shall develop standards and procedures for taking enforcement actions and for conducting investigations and compliance reviews.”

11 This document is accessible at http://www.usdoj.gov/crt/cor/coord/TitleIXQandA.htm.

12 The University has informed NASA that it is making changes to ensure that the website language more clearly refers to both harassment and discrimination allegations. Krech letter, p. 2.
(ii) Authority and Access to Senior Leadership

With regard to the authority and access of the Title IX coordinators, the Director, ODH reports to the Vice Chancellor for Administration, while the Director, OSC reports to the Vice Chancellor for Student Affairs. Both Directors appear to have the needed authority and access to effectively perform their Title IX roles and responsibilities. For example, the Director, ODH reports that she meets quarterly with the Chancellor and his cabinet to review her case list, including all active complaints, focusing especially on the more serious matters, such as cases involving sexual assault. She states that the Chancellor's office is very supportive of the ODH, with the Chancellor forwarding the annual message on the requirement for sexual harassment training.

(iii) Training, Education, and Awareness Efforts

The compliance team also examined the training efforts that both offices undertake on a regular basis, since training is a critical part of the tasks and responsibilities of Title IX coordination efforts.\(^{13}\) During interviews with staff of the ODH as well as the OSC, interviewees identified training that had been undertaken with a description of the content, dates of training and a list of attendees. It is clear from the interviews and other information provided that both offices undertake an extensive program of training efforts. There is a requirement for all employees to take an online training module every five years. In addition, ODH conducts a great deal of targeted training. For example, during the Spring 2010 semester, the ODH offered multiple trainings to teaching faculty and instructors, staff and research faculty, managers, and student employees, including teaching assistants. Overall, during the 2009-10 academic year, ODH trained 3,339 employees, including 756 staff or professional research assistants, 30 managers, 1,742 student employees, 561 teaching assistants and 211 faculty. These numbers include APS faculty, staff and students. NASA commends UCB for undertaking these extensive training efforts and for maintaining effective tracking mechanisms for its training outputs.

ODH informed NASA after the onsite review that it has launched a campus-wide online training that is mandatory for University employees, including faculty, staff and student employees, meaning that virtually all graduate students and many undergraduate students must take the training in addition to the training they receive during orientation. This training can serve as a refresher for those who need to retake the training (which is required every five years). The new training is based upon the trainings that ODH has given for a number of years and which cover the University’s sexual harassment policy and its general discrimination and harassment policy.

For its part, OSC informed NASA that it partners with the Office of Orientation to provide freshmen and transfer students with an orientation session regarding sexual harassment and UCB anti-discrimination policies regarding protected classes, e.g., race, disability. Students must sign off on their attendance in a session, their receipt of the policy, and that the policy was explained to them. OSC’s student orientation policy trainings have resulted in 22,000 students having received training over the last three years, with 6,330 students trained in 2008-09; 7,775 trained in 2009-10; and 7,914 trained in 2010-11. Again, NASA commends UCB for these important efforts.

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\(^{13}\) See Title IX Q&A, “Designation of Title IX Coordinator – What factors should a recipient consider in designating a Title IX Coordinator?”
OSC also gives other presentations throughout the year. For example, during the 2010 calendar year, OSC conducted sexual harassment and assault presentations to fraternities, the ROTC, all nine of the varsity sports teams, various student groups and some residence halls (see “Promising Practice” below). They have also presented to women’s organizations to inform them of their rights and responsibilities under the law. They advise students that there are consequences for not participating when the orientation is mandatory.

NASA commends both ODH and OSC for the clear institutional commitment to strong education and awareness on sexual harassment and other forms of discrimination that the two offices are implementing. NASA views this commitment as particularly strong in that it is designed to reach all segments of the campus community, not only at the beginning of students’ academic careers, i.e., orientation, but also in chosen peer group settings.

Students interviewed stated that they recalled the orientation sessions on discrimination, which were usually combined with other training. One comment consistently heard was that the training delivered on discrimination and harassment was informative but not engaging or particularly memorable. Some students indicated that they thought the orientation training could be strengthened if it was more interactive and less “outdated.” Still another comment was that the training focused too much on egregious, or obvious, examples of harassment, to the exclusion of more subtle matters, such as unconscious bias.

The University reports that OSC orientation presentations do indeed discuss both subtle and overt forms of discrimination and harassment, so there appears to be a certain dissonance which OSC, in collaboration with ODH, may wish to examine (see “Recommendations,” below). We note that online training developed by ODH may be helpful to OSC in designing enhancements to its orientation and/or other training, should it determine such enhancements are needed. The University informs NASA that OSC is considering implementing an online training module similar to the one currently being deployed by ODH to the campus community. ODH reports that it has designed its online training to be both interactive and to include “real life” and classroom examples, and that consideration has been given to course designs with illustrative examples of discrimination and harassment intended to resonate with participants.

Addressing matters of discrimination and harassment are by no means the primary, or even an important concern for the vast majority of students during their academic careers, and yet it is crucial for members of the academic community to have an appreciation for what conduct is acceptable and what is not, and what avenues are available to them if a concern should arise. NASA commends UCB on its current training efforts. However, our review indicates that consideration should be given to continuous improvement efforts undertaken between the two lead offices (see “Recommendations” below).

4. Recommendation

Enhancements to Training Modules. To better ensure that training, education, and awareness efforts achieve their intended objectives, ODH and OSC may wish to review their various training modules to see if enhancements to any of them may be needed. Such a review should be focused on “customer” perceptions of current efforts, for example, focus groups that may offer insights into “real world” experiences, to be as responsive and efficient as possible in making changes. Universities reviewed by NASA have found it helpful to imbue training with the subtleties that are more likely to be familiar to today’s student body. For instance, examples focusing more on unintended actions that can still have a

14 Krech letter, p. 3.
15 Ibid.
detrimental effect may have greater resonance for training participants. Such examples include responding more favorably to members of one gender in the classroom setting, or providing more encouragement to members of one gender in the advising setting. In the harassment context, the illustrative examples may also be designed to reflect the range of inappropriate remarks and behavior, rather than a focus only on the most egregious examples. It is also important to clearly distinguish in the name of the training that sexual harassment and unconscious bias are different, just as harassment and intentional differential treatment are not the same thing.

Overall, NASA recommends that ODH and OSC give further consideration to comments made by APS faculty and students regarding their observations of currently available training, to better ensure that educational and awareness opportunities regarding Title IX and other non-discrimination mandates are effective for their intended purpose.

5. Promising Practices

a. **Strong Collaboration Between the Offices with Lead Title IX Responsibilities.** Given that the UCB has two offices, the ODH and the OSC, with lead Title IX responsibilities, it is logical that the two offices would have a strong collaborative relationship, which is indeed the case with ODH and OSC. What is promising about the collaboration between these offices, however, is the great extent to which they have gone to ensure appropriate coordination on all aspects of their shared roles and responsibilities, from information dissemination to the monitoring and trends analysis of the complaints process. In addition, the two offices have engaged in innovative and targeted efforts regarding information dissemination. For example, they partnered in 2009 to purchase an advertisement regarding their respective services on ten “Buff Buses,” which transport student-athletes to events off-campus and sometimes students at large around campus.

b. **Targeted, Innovative Education and Awareness Efforts.** OSC makes presentations to fraternities, male athletic programs, the ROTC, residence halls, and other targeted campus organizations, using male-to-male presentations to enhance the impact for student participants. The feedback from those who have witnessed the presentations is that they are stark and direct enough to have a meaningful connection with the male participants. The style of presentation addresses the consequences of improper behavior and makes a lasting impression. These sessions have been described as highly interactive, robust in the exchanges and sometimes provocative because of the challenge of the instructor to participants to think about treatment of women from the perspective of interacting respectfully with someone’s sister or mother. The result is that the participants know the rules, expectations and consequences.

B. Adoption of Title IX Grievance Procedures and Title IX Policy Dissemination

1. **Regulatory Requirements**

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.

17 Designation of responsible employee and adoption of grievance procedures, 14 C.F.R. § 1253.135(b).
NASA’s Title IX regulations also 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.¹⁸

2. Findings of Fact

a. Grievance Procedures

UCB’s Title IX grievance procedures for cases in which the respondent is an employee are embodied in UCB’s Discrimination and Harassment Policy and Procedures (accessible at http://www.colorado.edu/policies/discrimination.html). Applicable procedures for cases in which the respondent is a student are embodied in the Student Conduct Code Policies and Procedures, Appendix 1: Definitions and Procedures for Sexual Misconduct, Sexual Harassment and Protected Class Discrimination (accessible at http://www.colorado.edu/studentaffairs/studentconduct/downloads/StudentConductPoliciesandProcedures.pdf).

The latter set of procedures is heavily focused on matters pertaining to sexual harassment. Nonetheless, both sets of policies:

- prohibit discrimination and harassment based on sex;
- define relevant terminologies;
- provide reasonable timeframes for the completion of intermediary steps in the process (e.g., investigative report completed within 90 days of receipt of allegation, final report sent to Chancellor within 30 days of reviewing body’s receipt of investigative report)

Regarding actual instances of complaints within APS, the University reports there has not been a complaint filed with OSC by an APS student against another student during the period covered by NASA’s review, 2003-2010. ODH has received one case of alleged sexual harassment from an APS employee during this time period. In this case, an APS research assistant contacted the Office of Sexual Harassment (“OSH”), the predecessor office of ODH, in June 2004 for information about the process of filing a sexual harassment complaint. The research assistant stated that he witnessed an incident between two APS employees that he believed may have been sexual harassment, but he refused to disclose the names of the people involved. ODH provided policy and complaint filing information to the research assistant; however, even after ODH followed up, the student did not respond or contact OSH again. As ODH did not have enough information to open an investigation, it closed the matter.

b. Policy Dissemination

Both ODH and OSC disseminate Title IX and related policy information on discrimination and harassment to students by: (1) making brochures available at numerous areas of the University campus; (2) displaying posters on buses that students frequently ride from student housing to the University’s campus; (3) circulating copies of policies and other relevant materials at trainings; and (4) posting its policies and information on Websites. These steps are consistent with guidance interpreting the NASA Title IX regulatory requirements for policy dissemination (see “Compliance Assessment” below).

The ODH Website includes a link to the UCB Discrimination and Harassment Policy prominently featured on the site. Finding the ODH site (and, hence, the policy) is made intuitive from the UCB home page.

¹⁸ Dissemination of policy, 14 C.F.R. § 1253.140.
whose search engine will quickly bring one to ODH’s homepage through a search for either “discrimination” or “harassment.” The OSC Website includes a link to the Student Conduct Code that includes the policies. It too may be found from the homepage using a search engine. In the past, the OSC distributed a copy of the Student Conduct Code to every freshman living on campus. Currently students are given a flyer that has critical information and the URL address where the student conduct code is located.

In addition, the University encourages faculty to include information on their syllabi discussing the role and services of ODH and OSC. For example, an administrative e-memo was distributed to all University faculty on August 8, 2008 containing recommended language for faculty to include on their syllabi regarding discrimination and harassment.

3. Compliance Assessment

a. Grievance Procedures

NASA’s compliance assessment seeks to ensure that UCB has developed and is implementing procedures that afford a grievant “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 looked to the DOJ Title IX Q&A and OCR’s Revised Sexual Harassment Guidance, which provide additional considerations on the basic components of effective, i.e., prompt and equitable, grievance procedures in the discrimination and harassment context. In its Revised Sexual Harassment Guidance OCR identified a number of elements in evaluating whether a school’s grievance procedures are prompt and equitable, including whether the procedures provide for:

- Notice to students, parents of elementary and secondary students, and employees of the procedure, including where complaints may be filed;
- Application of the procedure to complaints alleging harassment carried out by employees, other students, or third parties;
- Adequate, reliable, and impartial investigation of complaints, including the opportunity to present witnesses and other evidence;
- Designated and reasonably prompt timeframes for the major stages of the complaint process;
- Notice to the parties of the outcome of the complaint; and
- An assurance that the school will take steps to prevent recurrence of any harassment and to correct its discriminatory effects on the complainant and others, if appropriate.

19 14 C.F.R. § 1253.135(b).
20 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. See, 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/. The grievance procedures should also provide the steps necessary to correct the policy or practice that does not comply with Title IX regulations. See, Education Manual. 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. See also, U.S. Department of Education, Office for Civil Rights, “Revised Sexual Harassment Guidance: Harassment of Students by School Employees, Other Students, or Third Parties,” (Jan. 19, 2001), § IX. Prompt and Equitable Grievance Procedures (accessible at http://www.ed.gov/about/offices/list/ocr/docs/shguide.html.) (OCR Revised Sexual Harassment Guidance).
21 OCR Revised Sexual Harassment Guidance, § IX. Prompt and Equitable Grievance Procedures (citations omitted).
Importantly OCR states that “[a] grievance procedure . . . cannot be prompt or equitable unless students know it exists, how it works, and how to file a complaint. Thus, the procedures should be written in language appropriate to the age of the school's students, easily understood, and widely disseminated.”

OCR further states that “[m]any schools also provide an opportunity to appeal the findings or remedy, or both.” However, OCR does not specifically include appeal rights among the elements it recommends in evaluating whether a recipient’s procedures are prompt and equitable.

(i) Procedures as Written

Based on these considerations, NASA finds that UCB’s Discrimination and Harassment Policy and Procedures provide a clear statement of the prohibition against discrimination and harassment, appropriately define these terms, and communicate the process in clear and concise language. Importantly, the procedures generally conform to OCR’s guidelines. For example, the procedures provide reasonable timeframes for intermediary steps and completion of the process, helping to ensure a prompt process for investigation and determination. They also provide both the complainant and the respondent an opportunity to present relevant information, consistent with OCR’s recommendation for ensuring a “prompt and equitable” resolution of the complaint.

NASA notes also that OCR considers the use of student conduct code procedures for addressing matters in which a student is the respondent to be appropriate. OCR states in this regard: “Title IX also permits the use of a student disciplinary procedure not designed specifically for Title IX grievances to resolve sex discrimination complaints, as long as the procedure meets the requirement of affording a complainant a "prompt and equitable" resolution of the complaint.”

The procedures suffer in only two respects: first, neither set of procedures provide a formal appeal procedure; nor do they inform students and employees of their right to file complaints directly with Federal funding agencies of the University, for example, the U.S. Department of Education or NASA. Regarding appeal, as noted, OCR does not include this in its elements for evaluating whether recipient procedures are prompt and equitable, only stating that many schools choose to include the opportunity for appeal. Nonetheless, appeal is a key aspect of basic notions of procedural fairness. In this regard we note that OCR, in a discussion of “due process rights of the accused,” cautions that “[t]he rights established under Title IX must be interpreted consistent with any federally guaranteed due process rights involved in a complaint proceeding. . . Procedures that ensure the Title IX rights of the complainant, while at the same time according due process to both parties involved, will lead to sound and supportable decisions.”

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22 Ibid.
23 Ibid.
24 Ibid.
26 Ibid., § X, “Due Process Rights of the Accused.”
Regarding the procedures for students against whom harassment is alleged, UCB states that, in accordance with its Student Conduct Code, student discrimination and harassment handled under the Office of Student Conduct do not include an appeal right per se. However, upon determination of responsibility, these cases are sent to a campus independent review committee. The review committee is charged with ensuring that the conclusion was reasonable, thorough, and unbiased. If the review committee approves the report and attendant finding, the file is then sent to the Director of the Office of Student Conduct to determine sanctions. Both the respondent and complainant are given an opportunity to present aggravating or mitigating circumstances for consideration prior to the decision. In some cases, the nature of the conduct may fit more appropriately under the Abusive Conduct provision of the Student Conduct Code. As such, the respondent can submit a formal appeal if the decision is suspension, expulsion, or housing termination. The complainant of a crime of violence as defined by the Campus Security Act may file a request for appeal in any case.27

Further, the University informs NASA that:

“While there is no formal appeal procedure in the ODH process, (1) the complainant and the respondent each has the right to file a response, which is retained in the file, to the ODH’s final report; (2) draft investigative reports are as a matter of course reviewed by an ODH Review Committee prior to being finalized; and (3) as an existing component of the process, appeal rights are afforded for many types of personnel decisions (faculty have the right to appeal any disciplinary action through the Privilege and Tenure Committee and classified staff may appeal any disciplinary action through the State Personnel Board).”28

NASA commends UCB for providing an opportunity to both the student respondent and the complainant to present aggravating or mitigating circumstances for consideration prior to the decision and for providing appeal rights in cases involving student suspension, expulsion, housing termination, or crimes of violence. Consistent with due process rights, the University affords faculty the right to appeal any disciplinary action. However, UCB may wish to consider revising its procedures to clarify available appeal rights and to broaden appeal rights in student cases. A collaborative internal review of relevant guidance cited in this report may assist UCB in this regard (see “Recommendations,” below).

(ii) Procedures as Implemented

As noted, the University reports that there has been only one instance of a concern raised by an APS student during the period of NASA’s review. In this case, a student alleged that he witnessed what he believed to be an instance of sexual harassment involving two APS employees. The student who raised the concern apparently chose not to follow-up, and, lacking enough information for an investigation, the University did not pursue the matter further.

For purposes of compliance with the Title IX regulations, a school has a duty to respond to harassment about which it reasonably should have known, i.e., if it would have learned of the harassment if it had exercised reasonable care or made a "reasonably diligent inquiry."29 While educational institutions have a clear duty to take prompt and effective action to address allegations of harassing conduct, what constitutes

28 Krech letter, p. 4.
29 Ibid., § V.C. “Determining a School’s Responsibilities: Notice of Employee, Peer, or Third Party Harassment.”
a reasonable response to information about possible sexual harassment will differ depending upon the circumstances.30

In this case the University was dealing with a third-party allegation. Its response was consistent with OCR guidance regarding instances of third-party or anonymous allegations. Among the considerations OCR names in determining whether to pursue such allegations are the source and nature of the information; the seriousness of the alleged incident; the specificity of the information; the objectivity and credibility of the source of the report; whether any individuals can be identified who were subjected to the alleged harassment; and whether those individuals want to pursue the matter.31 Here, it appears that UCB was not able to identify the individual(s) subjected to the alleged harassment. NASA notes that in instances where it is not possible to investigate further, OCR recommends recipients consider: conducting sexual harassment training for the school site or academic department where the problem occurred, taking a student survey concerning any problems with harassment, or implementing other systemic measures at the site or department where the alleged harassment has occurred.32

b. Policy Dissemination

Relevant ED OCR and DOJ guidance also informed NASA’s assessment of UCB compliance with the regulatory provision requiring dissemination of Title IX policy.33 This guidance clarifies the regulatory requirement. For example, OCR’s guidance emphasizes the need for recipient institutions to have “well-publicized” grievance procedures.34 In addition, OCR states, “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.”35 Importantly, OCR states:

“Distributing the procedures to administrators, or including them in the school’s administrative or policy manual, may not by itself be an effective way of providing notice, as these publications are usually not widely circulated to and understood by all members of the school community. Many schools ensure adequate notice to students by having copies of the procedures available at various locations throughout the school or campus; publishing the procedures as a separate document; including a summary of the procedures in major publications issued by the school, such as handbooks and catalogs for students, parents of elementary and secondary students, faculty, and staff; and identifying individuals who can explain how the procedures work.”36

DOJ regulations also 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.37

30 Ibid., § VII.C, “Recipient’s Response: Response to Other Types of Notice.”
31 Ibid.
32 Ibid., § VII.C, “Recipient’s Response: Confidentiality.”
34 See OCR Revised Sexual Harassment Guidance, Preamble, “Enduring Principles from the 1997 Guidance.”
36 Ibid., § IX. Prompt and Equitable Grievance Procedures (emphasis added).
37 Public dissemination of Title VI information, 28 C.F.R. § 42.405(c).
Taking into account these considerations, NASA finds that UCB is taking appropriate steps to disseminate Title IX policy; for example, by publishing them in student and faculty handbooks, making brochures available at numerous campus sites, displaying posters on buses that students frequently ride from student housing to the University’s campus, and posting its policies and information on Websites. In addition, UCB, through the ODH, has fully disseminated among academic departments receiving NASA financial assistance a NASA brochure on nondiscrimination and equal opportunity for beneficiaries of NASA assisted programs, both electronically and in print. These steps are consistent with guidance interpreting the NASA Title IX regulatory requirements for policy dissemination.

As noted above, the Discrimination Policy and Procedures are easily found on the ODH homepage, which provides a prominently placed drop-down menu including "Discrimination and Harassment Policy" as an option. Also, as noted, the Websites of the ODH and OSC are quickly accessible through the University homepage’s search engine. It is notable that both the ODH and OSC Website homepages contain a number of links to other offices, e.g., the Ombuds, Department of Housing, as well as to one another. (See “Promising Practices” below).

NASA notes, however, that both students and faculty interviewed stated that they had specific knowledge of the processes for filing complaints. A majority indicated that they felt confident not only that they would know how to file a complaint; but that they felt the university would deal appropriately and effectively with such a complaint. NASA’s reviews do not typically show such a level of knowledge about discrimination and harassment processes, suggesting that efforts UCB has taken to disseminate information on its discrimination and harassment policies are having the intended effect. NASA commends UCB for these efforts.

4. Recommendation

Enhancements to Internal Grievance Procedures. UCB should revise its internal grievance procedures for filing complaints of discrimination or harassment to include a provision informing students filing such complaints, and in the case of Title IX, employees of the University, of their right to file a complaint directly with a Federal funding agency; for example, the Department of Education, Office for Civil Rights. In addition, consistent with the NASA regulatory requirement to ensure that the procedures are equitable, UCB should give consideration to revising its procedures to clarify available appeal rights and to broaden appeal rights in student cases. UCB may wish to consider a collaborative internal review of its procedures, to include ODH, OSC, the University Counsel’s Office and other appropriate stakeholders. The review should take into account applicable guidance from Federal administrative oversight agencies for civil rights, such as ED OCR and DOJ, much of which is cited to in this report.

5. Promising Practices

a. Demonstrated Leadership Commitment. UCB officials stated that, after the resolution of a sexual harassment lawsuit, UCB initiated aggressive programs to better ensure the ability of individuals, both students and faculty, to bring matters to the attention of the institution. The University states that it recognized a need to provide additional resources to address discrimination and sexual harassment by supporting the creation of a sexual harassment investigator and sexual harassment educator within the OSC. UCB believes these positions are critical to the overall success of OSC and the University in responding to matters of discrimination and sexual harassment.

38 The University informs NASA that it is looking into adding additional information to the ODH and OSC websites about filing complaints outside the University. See Krech letter, p. 3.
Additional steps included the hiring of an expert Title IX consultant to address issues relating to sexual harassment, and other proactive measures designed in part to increase knowledge about the legal requirements under Title IX and the process for filing a complaint of discrimination or harassment. To this end, UCB officials reported that information on these topics was disseminated throughout the University community. Moreover, UCB’s programs for educating students are aggressive and proactive. The Student Code of Conduct includes sexual harassment policies and anti-discrimination policies; it is very clear and well disseminated, including presentations to fraternity houses, ROTC and all varsity sports teams. This helps to better ensure students understand the unacceptable behaviors and related consequences. The aggressive approach is found in addressing the behaviors at the faculty level as well, with a UCB requirement for all teaching faculty and teaching assistants to take anti-harassment training.

b. Online Dissemination of Policy and Procedures. UCB has made finding the two lead offices with responsibilities for addressing matters of discrimination and harassment intuitive through the University’s homepage search engine. While this may not seem a great accomplishment, NASA has found that many institutions have not taken appropriate steps to make discrimination and harassment policies and processes readily available to their academic community. It is also noteworthy that UCB has established links between ODH and OSC on their respective homepages, since both offices play leading roles, while it may not be clear to a student or faculty searcher wishing to raise a concern which office is the more appropriate for the particular matter.

C. Title IX Self-Evaluation

1. Regulatory Requirements

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

2. Findings of Fact

In UCB’s response to the pre-onsite data request, the APS Department provided a summary of the actions it is taking and assessments that it conducted to determine levels of compliance with Title IX. In terms of female participation in the program, the Department concludes that the participation of females in APS is commensurate with their participation in Astrophysics nationally. With regard to gender representation on the faculty, the Department will seek to expand the representation of women, particularly by finding employment for the so-called “trailing spouse.”

In terms of climate, the APS summary describes the efforts of the APS Committee on Diversity and Student Concerns. These include the establishment of the Women’s Astronomy Luncheon, the creation of a Website with links to topics of concern (e.g., dual-career tracks and family concerns), and a weekly colloquium series for faculty and students that frequently invites female speakers as positive influences on the climate. In addition, the Department supports the University’s Leadership Education for Advancement and Promotion (LEAP) Program, which offers workshops on mentoring, leadership, and negotiation skills. A number of APS faculty of both genders have participated in LEAP. The Department

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39 Self-evaluation, 14 C.F.R. § 1253.110(c).
40 However, as described in Section E, Program Administration and Academic Environment, below, the responses to presentations of female speakers at this colloquia have raised concerns for some program participants.
also endorses recommendations made in a 2005 report prepared by the Chancellor’s Committee on Women, titled “Improving the Campus Environment for Women,” such as medical and maternity leave policies for graduate students, in-home sick child care, and flexibility in partner hires (see also Section E, for further discussion on the APS environment).

3. Compliance Assessment

The Department’s response to the NASA information data request under the instant review constitutes a viable Title IX self-evaluation regarding two key components: admissions and treatment of students. Specifically, the Department analyzed the faculty and student female participation rates and compared them to national averages; examined the degree that it adhered to policy dissemination and training requirements; and reviewed climate and educational experiences of females vs. males. These measures, along with the 2009 Title IX review of the University conducted by an outside consultant advisor and the 2005 report by the Chancellor’s Committee on Women, indicate concern and responsiveness regarding Title IX compliance matters.

4. Recommendations

a. Periodic Examination of Student Data by Gender. The APS should conduct periodic examination of student data and climate surveys to regularly assess Title IX compliance. The Department should use self-evaluations, including trend analysis, to inform training needs and other proactive efforts to ensure equal opportunity on the basis of gender.

b. Visible Leadership on Gender Equity at the Departmental Level. The Department should continue to demonstrate concern for gender equity by taking steps to ensure that faculty and students stay current on campus-wide climate surveys and reports that pertain to women. The Department may also demonstrate leadership through participation in and encouragement of faculty/student participation in education and awareness opportunities beyond the required sexual harassment training, and by showing other signs of demonstrated leadership commitment, such as discussing relevant issues in faculty meetings, and holding open forums or “town hall” type meetings.

5. Promising Practice

Efforts to Address Campus Sexual Assault-Sexual Harassment. The comprehensive work of the Sexual Assault-Sexual Harassment (SASH) Committee resulted in the publication of a Gender Violation Prevention Plan. This study and plan are groundbreaking in that they are a treatise on the underlying causes, behaviors and conditions that give rise to harassment and sets forth a holistic approach to eradicating it in the university setting.

D. Recruitment, Admissions, Enrollment, Degrees Earned, and Faculty Recruitment

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 reviewed the APS Department’s student recruitment, and admissions practices, as well as student departures and degrees earned. For graduate students, NASA also examined financial assistance awarded to students and success on the comprehensive

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41 14 C.F.R. § 1253.110(c).
42 Admission, 14 C.F.R. §1225.300; Recruitment § 1253.310.
and qualifying exams. The review was based on at least five academic years of data, and in some areas, seven years of data were examined.

2. Findings of Fact

a. Graduate Admissions, Enrollments, and Departures

An analysis of the graduate APS program found that over a seven year period (academic year (AY) 2004 through AY 2010), 44 percent of the applicants were female, and 43 percent of the offers were made to female applicants. For both males and females, 24 percent of the applicants received offers. However, of those who received offers, 35 percent of males enrolled, compared to 26 percent of females who received offers. In two of the three most recent academic years, no females enrolled in the graduate program.

In terms of overall enrollment in the graduate program, 31 percent of program participants over the seven year period were female and 69 percent were male. During this time, female participation peaked in AY 2007 at 38 percent. The lowest participation of women in the program was 20 percent, in AY 2004, the earliest year of the period reviewed.

Student departures from the program are low. From AY 2004 through AY 2008, a total of nine students departed the program (changed major or left UCB), representing less than 3 percent of the graduate student body. Of the nine departures, five were female students (56 percent) and four were male students (44 percent).

b. Graduate Financial Assistance, Exams, and Degrees Earned

NASA examined financial assistance awarded to APS graduate students in the form of fellowships, research assistantships, and teaching assistantships. Female students received 43 percent of the fellowships, 29 percent of the research assistantships, and 35 percent of the teaching assistantships awarded between AY 2004 and AY 2008. When the three types of assistance are combined, females received 35 percent of the funding.

As one indicator of success in the program, NASA compared male and female pass/fail rates on the comprehensive and qualifying exams required of graduate students. Between AY 2004 and AY 2010, 63 percent of females passed the comprehensive exam on the first attempt, compared to 65 percent of males. On the same exam, 67 percent of both males and females passed on their second attempt. On the qualifying exam, 100 percent of female students passed on the first attempt compared to 97 percent of males (it should be noted that in the seven year period, only one student, out of 49 failed the qualifying exam on the first attempt).

A final measure of graduate student participation and success in the program considered by NASA was graduation rates. Between AY 2004 and AY 2008, 33 percent of the degrees earned (including master’s and doctorate degrees) were by female students, compared to 67 percent earned by male students.

c. Undergraduate Admissions, Enrollments, Departures, and Degrees Earned

At the undergraduate level, 45 percent of applications between AY 2004 and AY 2010 were from females, and 55 percent were from males. Similarly, 48 percent of the students accepted were female, and 52 percent were male. Of those students who were accepted, 44 percent of the female applicants enrolled, compared to 39 percent of the male applicants. Over the seven year period, 39 percent of the total

43 Note: the undergraduate major and degree is in astronomy.
undergraduate student participants were female and 61 percent were male. Of the undergraduate departures (changed major or left UCB), 37 percent were female and 63 percent were male. Finally, in terms of degrees earned, between AY 2004 and AY 2008, women earned 39 percent of the undergraduate degrees and men earned 61 percent of the degrees in astronomy.

**d. Faculty Recruitment**

The APS has not recruited or hired any faculty members in the past five years prior to NASA’s onsite review. The University reports that since NASA’s onsite visit, APS has made an offer of an Assistant Professorship to a woman, with help from the University to make a “special opportunity position.” It is currently undetermined whether the offer will be accepted.\(^\text{44}\)

**3. Compliance Assessment**

**a. Graduate Admissions, Enrollments, and Departures**

NASA found no difference in the admissions process based on gender. This finding is based on the admissions data described above as well as student interviews, where no inequities in the admissions process based on gender were cited by male or female students. One area of concern, however, is that no female students enrolled in the APS graduate program in AY 2008 or 2010 despite nine offers made by the Department each year. NASA understands there is intense competition for top female applicants, but APS needs to monitor enrollments to determine whether this trend continues, and develop strategies to increase female matriculations.

In terms of student departures from the program, the numbers are too small to draw conclusions. However, in the most recent year for which APS provided data (AY 2008), three women left the program, a higher number than in any other year reviewed. This is another area the Department needs to monitor and respond to, as appropriate, in future years.

**b. Graduate Financial Assistance, Exams, and Degrees Earned**

NASA found no gender differences in funding awards or success on required exams in the APS program. The overall assistance provided to female students is consistent with their participation in the program and male and female students have very similar success rates on the comprehensive and qualifying exams. Likewise, the ratio of degrees earned by female students is consistent with their enrollment in the program.

**c. Undergraduate Admissions, Enrollments, Departures, and Degrees Earned**

NASA found no gender differences in undergraduate admissions, enrollments, departures, or degrees earned.

**d. Faculty Recruitment**

The University has not engaged in faculty searches for the past three years. In the past, the Department hired one female professor as a “special opportunity” hire and another by creating a 50-50 position for a woman and her husband. While the couple had 50% faculty appointments they were able to fund some or all of the remaining 50% of their salary through grant funding. The University has since converted their shared faculty position into two full-time faculty positions. The Department is considering another special

\(^{44}\) Krech letter, p. 4.
opportunity hire, which means requesting supplemental money from outside the Department to increase the diversity of the faculty.

4. Recommendations

a. Declinations. The Department should continue to follow up, to the fullest extent possible, with students who decline acceptance offers to identify the reasons and ensure that the reasons are not related to gender (e.g., unwelcoming climate for women). If women continue to decline offers at higher rates than males, the Department should consider increasing recruitment efforts of females to increase the pool of women who receive offers.

b. Criteria for Graduate Admissions. The Department should review its criteria for graduate admissions. To the extent that the General Record Examination (GRE) scores are over-emphasized as a deciding factor for making offers, the Department may not be making offers to women who would succeed in the program. The Department needs to make sure it is using the best predictors for success in the program (e.g., grade point average in relevant classes) in its decision making.

c. Student Departures. The Department needs to explore reasons for students’ departures to assess whether there are gender-related reasons, such as life/work balance concerns, that need to be addressed.

5. Promising Practices

Innovative Efforts to Increase Female Faculty. The Department has been creative in the past in finding ways to increase the number of female faculty, e.g., successfully making the case for special hiring funding and creating a 50-50 position to accommodate a married couple. The Department needs to continue to find ways to increase the number of women on the faculty; many female students cited the need for more female role models and advisors.

E. Program Administration and Academic Environment

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. The Title IX regulations explicitly state that a recipient may not discriminate on the basis of gender with regard to career counseling or guidance.

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.

45 Education programs or activities, 14 C.F.R. § 400(a), (b)(7).
46 Counseling and use of appraisal and counseling materials, 14 C.F.R. § 1253.425.
47 Marital or parental status, 14 C.F.R. § 1253.445 and 1253.530.
The regulations require that pregnancy and childbirth be treated in the same manner and under the same policies as any other temporary disability or physical condition. Further, Title IX requires that in the case of a recipient that does not maintain a leave policy for its students, or in the case of a student who does not otherwise qualify for leave under such a policy, “a recipient shall treat pregnancy, childbirth, false pregnancy, termination of pregnancy, and recovery from the termination of pregnancy as a justification for a leave of absence for as long a period of time as is deemed medically necessary by the student's physician, at the conclusion of which the student shall be reinstated to the status she held when the leave began.”

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.

On the basis of these provisions, the compliance team examined UCB and APS program administration and its impacts, both positive and negative, on the overall academic environment of APS, including academic advising, career counseling, research participation, classroom experiences, parental or marital status (“family friendly”) policies and physical safety of the program environment.

2. Findings of Fact

a. Academic Advising and Career Counseling

At the undergraduate level, students are assigned an advisor upon admission to the program, but have the flexibility to switch to another advisor upon request. At the graduate level, students are paired with their advisors based on matching research interests and are consequently often the result of self-selection among the students.

In general, students interviewed reported positive and supportive advising relationships that met their needs. However, not every advising relationship was described as completely positive. NASA heard about advising in which inappropriate gender related remarks were made, with a few students describing joking and mildly offensive comments made by advisors.

It is also noteworthy that the interviews suggested certain inconsistencies in advising with respect to graduate students who failed the comprehensive examinations required to complete the Master’s Degree program. Specifically, some students (both male and female) stated that they were advised to re-take failed comprehensive examinations, while others stated that they were advised to “consider their options,” i.e., leave the program.

b. Classroom Experiences and Research Participation

NASA’s examination of classroom experience and research participation included a review of information provided by APS on academic requirements and research opportunities within the program. NASA’s interviews with APS faculty and students focused on the experiences of students in the classroom and lab. A majority of male students and many female students described classroom and research experiences in which they had not observed or experienced any concerns relating to gender.

However, as with advising, the classroom setting was not depicted as entirely free of concerns, with both male and female students able to recall specific instances in which they perceived subtle or unconscious

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48 Admission, Prohibitions relating to marital or parental status, 14 C.F.R. § 1253.300(c)(3).
49 Marital or parental status, 14 C.F.R. § 1253.445(b)(5).
50 Enforcement procedures, 14 C.F.R. § 605.
gender bias as being present. This ranged from very minor instances, such as language used in the context of describing the scientific method, e.g., “boys with toys,” to more significant matters, such as sometimes marked differences across gender lines in responsiveness to classroom input. In this regard, several female students mentioned the experience of responding to a question in class and having the response treated negatively and then having a male student provide a similar response and have it treated positively; two students stated that there seemed to be a “condescending” attitude at play.

There was also a clear, shared perception among some faculty and students of both genders that female faculty and applicants for faculty positions, have in some instances, received a markedly different response than their male counterparts in various program settings. For example, NASA heard from several individuals that, in a weekly colloquium, female speakers are not accorded the same level of respect as their male counterparts, with male faculty interrupting and challenging female speakers in a manner that is palpably different from their treatment of male speakers, and in the estimation of some, disrespectful. Similarly, NASA heard from several interviewees that, during the “job talks” of the five candidates (four men and one woman) in APS’s most recent faculty search, male faculty did not interrupt the male candidates, whereas the female candidate was interrupted within five minutes and was not able to get through her presentation. Interviewees were not of the opinion that the female candidate’s credentials or remarks were in any obvious way inferior to the male candidates, yet in the descriptions of students who were in attendance there was a striking difference in the response to the female candidate’s presentation.

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

UCB’s “family friendly” policies are embodied in a number of documents provided by the University in response to NASA’s Information Request. These include Family Medical Leave Guidelines, an administrative policy statement on parental leave for faculty, a Boulder campus policy on adjustments to the tenure clock, and a faculty leave informational document. Web links provided by UCB for these documents were defunct and further research was needed to find the documents online.

UCB reports that there were two female APS graduate students who requested, and were approved for leave for pregnancy/child birth or dependent care between academic years 2003-2004 and 2009-2010. In addition, both of these students were financially supported during their leave through the Primary Caregiver Graduate Student Fellowship. This fellowship is provided through the College of Arts and Sciences via application to the APS chair. No faculty member requested leave for pregnancy/child birth or dependent care during academic 2003-2004 through 2009-2010.

In interviews in which faculty or students mentioned experiences or observations regarding parental or marital status policies, the statements were generally positive. One graduate student who took time off for maternity leave while pursuing a Ph.D said that her advisor was supportive and helped her to get a stipend

51 Family Medical Leave Guidelines for Officers, Professional Exempt, 9 and 12 month faculty and Research Faculty: http://www.colorado.edu/humres/support/leave.html?a=5; Administrative Policy Statement on Parental Leave for Faculty, Officers and Exempt Professionals: https://www.cu.edu/policies/policies/HR_ParentalLeave-FEP.html; Faculty Leave Informational Document www.colorado.edu/facultyaffairs/atoz/Faculty_Leave_Information%20Feb%202010%20FINAL.pdf; Faculty Handbook, Compensation on Leave: www.cu.edu/content/compensation-and-leave; Boulder Campus Policy on Adjustments to the Tenure Clock: www.colorado.edu/facultyaffairs/atoz/Tenure_Clock_Policy_Feb_2010.pdf; and Memo from Provost DiSTefano dated August 27, 2007: www.colarod.edu/facultyaffairs/deskref/Parental_Leave_0924_corrected.pdf.
that was the equivalent of her assistantship. She was also able to do some work from home. And when she returned to school, she was able to pick up where she left off.

However, there was a consensus among female graduate students and faculty interviewed that the ability to earn a Ph.D in APS, or any science field, was at least somewhat compromised when attempting to do so while having or raising children. This problem may be compounded by the fact that UCB offers no sick leave for graduate students, with one student remarking “it is pretty much at the whim of the professor.”

d. Safety

Notable among UCB’s efforts to ensure physical safety on its campus are prominently displayed postings on prevention efforts regarding gender-based violence, the provision of taxi and bus services (Night Ride) for late evening and night-time commuting, and a number of support groups on campus, some of which are spearheaded by the campus police, designed to help address safety issues. One of the more visible of these groups is the Sexual Assault-Sexual Harassment Task Force.

e. Overall Academic Environment

The University conducted a Graduate Student Survey in 2009. The APS Department included survey results for APS graduate students in response to NASA’s pre-onsite data request, and results are included as part of the Department’s self-assessment. Students were asked to rate the quality of the academic experience, the quality of the overall university experience, the climate of the program, overall program quality, overall quality of the graduate curriculum, and whether or not they would select the same field of study. The Department provided a comparison of male and female responses to questions concerning the academic experience at the University. Although gender responses do not appear to be significantly different, it should be noted that females rated their experiences lower on all six questions than their male counterparts. Likewise, NASA’s interviews with APS faculty and students, while suggesting the rigorous academic environment one would expect of a top science program, also suggest challenges for the program, such as a shared perception among some faculty and program participants that unconscious bias may still exist in some program settings.

3. Compliance Assessment

a. Academic Advising and Career Counseling

NASA examined the APS advising program, including policies and procedures, as well as student experiences and observations, to determine whether there was evidence of students being treated differently or otherwise limited, on the basis of gender. NASA specifically considered whether there were allegations of gender-related inappropriate conduct by faculty or graduate students in the advising setting. While NASA’s review did not show uniformly positive experiences with advising, and some students mentioned what they considered to be inappropriate remarks, there is no indication that students are being advised differently based on gender.

However, as noted in the “Findings of Fact,” on advising, NASA heard certain inconsistencies in the way students are advised. Some students (both male and female) stated that they were advised to re-take failed comprehensive examinations, while others stated that they were advised to “consider their options,” i.e., leave the program. There was no indication from NASA’s review that these inconsistencies were occurring along gender lines. Additionally, NASA could not discern whether the inconsistencies were tied to actual grades, i.e., students with the worst grades being told to consider carefully whether they wanted to remain in the program. To the extent that an issue exists, it would seem to center around the consistency of the message being given to students who fail the comprehensive exam. The Department needs to ensure that
there are consistent criteria applied if and when students are told to "consider their options" and that the same message is given to all students who fail the exam (see “Recommendations” below). Absent such consistency, some students may perceive differences in advising as gender discrimination.

b. Classroom Experiences and Research Participation

NASA’s review sought to determine whether, and if so the extent to which, students were treated differently or otherwise limited, on the basis of gender, with regard to research participation and classroom experiences, including whether there were allegations of gender related inappropriate conduct by faculty or graduate students in these settings. As stated, there was some mention of perceived differences in responses to classroom input across gender lines, but students raising this did not indicate that they believed they were being subjected to differential treatment or otherwise limited in their program participation, nor was there any other indication of this being the case. In addition, a majority of students interviewed reported no observable differences in this context.

However, NASA’s interviews raised a concern shared among some students and faculty that instances of unconscious gender bias affecting faculty and prospective faculty have sometimes been present in program settings. As mentioned above, a concern was raised and echoed by others, that female colloquia speakers are not always accorded the same level of respect given to their male counterparts. The same was true for presentations by candidates for a recent faculty position to which all students were invited. Descriptions of the responses by faculty to the female candidate’s remarks suggest a marked difference in the way those remarks were received as compared to her male counterparts.

Overall, some of the interviewees, both male and female, described incidents in which they perceived female program participants as being treated differently, perhaps unconsciously, but unmistakably, in a number of different settings, from the classroom to public presentations. (see “Recommendations,” below).

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

(i) Parental Status

Regarding UCB policies and faculty/student experiences in the APS Department pertaining to parental and marital status, the University’s parental leave policy is consistent with relevant Title IX regulatory requirements in that it does treat pregnancy and childbirth in the same manner and under the same policies as any other temporary disability or physical condition. In this regard, the parental leave policy states that it should be read in conjunction with the University Family and Medical Leave policy, which does treat pregnancy and childbirth as medical conditions. Additionally, UCB’s Discrimination and Harassment Policy includes protection from discrimination based upon pregnancy (as a form of gender discrimination) so that disparate treatment based upon pregnancy is required to be reported and investigated. UCB reports that it has never received a complaint of pregnancy discrimination involving the APS department.

However, while it appears that the program has appropriately accommodated the need for parental leave for graduate students when it has arisen, it does not appear that graduate students are knowledgeable as to whether they are covered under the University policies in this area. As one student stated, whether

52 See UCB, Family Medical Leave Guidelines for Officers, Professional Exempts, 9 and 12 month faculty and Research Faculty, accessible at http://www.colorado.edu/humres/support/leave.html?a=5.

graduate students are accorded sick leave, including for pregnancy and childbirth, is left to the discretion of the advisor. Also, there is no indication that the University or the program has taken steps to ensure dissemination of policies that are in place. This is consistent with statements by faculty and graduate students who said they are not clear on what the policies provide for, and that the general vagueness surrounding them does not send a message that requesting an accommodation is acceptable (see “Recommendations,” below). In this regard, we note also that some of the Web links provided by UCB to access these policies were inoperable, making it challenging to find the policies.

(ii) Marital Status

Both male and female faculty interviewed believed that the biggest challenge to family friendly policy implementation is the hiring of the “trailing spouse” (i.e., the spouse of a prospective faculty member or graduate student who also seeks employment with the University, as a condition for the interviewee to accept the faculty position or graduate student offer). As noted, the APS program has in the past been very creative in finding ways to address this problem, e.g., successfully making the case for special hiring funding and creating a 50-50 position to accommodate a married couple (see Section D, Recruitment, Admissions, Enrollment, Degrees Earned, and Faculty Recruitment, above).

d. Safety

Regarding UCB policies and student experiences in the APS department regarding safety, NASA’s review showed no indication of limitations on APS program participation in any way related to gender. There was a general consensus among interviewed students that the campus environment at UCB and within APS was physically safe, in large part due to the efforts of the University. Importantly, students were aware of and avail themselves of these safety-related amenities, such as the NightRide service. Students were aware of and said they found helpful the postings online and around campus circulating information to alert them to recent local crimes.

e. Overall Academic Environment

As to the overall academic environment, NASA’s review showed no evidence that any student was being treated differently or limited in his or her program participation based on gender, or that the program’s methods of administration are differently impacting students based on gender. However, while NASA has not found non-compliance with regulatory requirements pertaining to program administration, the review suggests APS has some challenges with respect to gender issues.

Having conducted a number of onsite Title IX compliance reviews of science and engineering programs across the country, NASA has some level of comparison when it comes to the overall academic environment. Some programs reviewed have been uniformly described by program participants as being free of any perceivable differences along gender lines, with no instances of even subtle or unconscious gender bias described in program settings. That is not the theme that has emerged from this review. The number of APS faculty and student interviewees, fully one third, who perceived gender as playing a role, on some level, in various program settings, and the variety of descriptive words used by interviewees, e.g., “disrespectful,” “interruptive,” “condescending,” in articulating their observations, cannot be ignored. NASA notes that part of the challenge for APS leadership and faculty, perhaps in partnership with stakeholder offices such as ODH and OSC, is the need to examine more closely the reasons why these words would be used to describe some of the observed interactions between individuals of different genders but not of the same gender.
In addition, the training provided, e.g., mandatory sexual harassment training, does not appear to be entirely relevant in that in the perception of a number of program participants, it is not effectively addressing other gender issues; for example, subtle or unconscious bias that can be present in academic settings such as APS. The experiences and observations of those interviewed in this regard suggest that APS may wish to consider steps that can help to address this challenge (see “Recommendations” below).

4. Recommendations

a. Consistency in Communicating Academic Policy. APS may wish to consider steps to better ensure consistency of criteria and message for students who fail the comprehensive exam. For example, the Department as a whole could have a discussion regarding how to advise students who fail the comprehensive exam, including what criteria would warrant advising students to consider other options. The Department might also wish to suggest specific language to use when advising such students, so that the message is not harsher or more discouraging for some than others.

b. Parental Leave Policies. It is not clear whether adequate steps are being taken to appropriately disseminate policy in this area. UCB should take steps to address this concern through a collaborative effort that includes ODH, OSC, and the academic departments. Such steps should include both dissemination and clarification of policy in a user-friendly, plain English, quick reference-type format that will facilitate understanding of the policy by both faculty and students.

c. Education and Awareness on Unconscious Bias. Steps to address the presence of unconscious bias within APS should begin with a demonstrated commitment from program leadership and faculty. This might include, for example, collaborative efforts with ODH, OSC, and other stakeholders to examine and address the issue. Such efforts may include greater emphasis placed on education and awareness opportunities focused on recognizing and avoiding unconscious bias in academic settings in which there is or historically has been a dearth of women participants. In this regard, NASA notes that an APS faculty member pointed to a documentary video, “It Has Not Been Easy” by Cecilia Pang (NSF funded, 2008), that treats the issue of unconscious bias very thoughtfully.

5. Promising Practices

Demonstrated Commitment to STEM Education. Through a multi-disciplinary collaboration of the School of Education, the College of Arts and Sciences, and the College of Engineering and Applied Science, UCB has doubled the number of STEM majors completing secondary math and science teacher certifications compared to just five years ago. The number of physics and chemistry majors enrolling in teacher certification has more than tripled in the past three years. One component of the effort, the Learning Assistant Program, (http://stem.colorado.edu) has become a national model for preparing K-12 math and science teachers and how to improve introductory STEM courses. Since the program began in 2003, more than 440 students have participated as Learning Assistants, helping improve introductory courses in 10 departments.

54 The University reports that ODH modified its sexual harassment training in 2005 to include all protected classes and cover both discrimination and harassment. Gender issues such as pregnancy, disparate treatment, and gender identity are expressly covered. See Krench letter, pp. 4-5. While NASA views this as commendable and entirely appropriate to address Title IX issues, the question remains as to why the faculty and students (and, it appears, the University) still view this training as “mandatory sexual harassment” training. It seems, at a minimum, ODH would want to, if it has not already done so, consider “re-branding” this training, as it is apparently far more extensive than its name would suggest.
UCB professors also have a history of conducting leading research in STEM education. Distinguished Professor and Nobel laureate Carl Wieman launched the Science Education Initiative in 2006 to incorporate research findings on effective science instruction in classrooms at CU. In 2002 he also created the Physics Education Technology Project, or PhET, incorporating a globally renowned education tool that uses interactive Web-based simulations to enhance physics instruction.

III. CONCLUSION

NASA finds UCB to be in compliance with the Title IX procedural requirements regarding coordination, grievance procedures, policy dissemination, and self-evaluation efforts. NASA finds that while UCB is in compliance with requirements to provide for methods of administration that do not differently impact or otherwise limit program participation of beneficiaries based on gender, some challenges remain. NASA’s review indicated that unconscious bias may still sometimes be present in various program settings and available education and awareness opportunities do not appear to be effectively addressing the issue. The recommendations in this report are designed to assist UCB and APS in this and other matters pertaining to its ongoing efforts to ensure equal opportunities regardless of gender. Finally, despite the challenges that remain, NASA observed a number of promising practices of both the University and the APS program, particularly around education and awareness efforts regarding sexual harassment prevention. NASA has noted these in its report and plans to incorporate them into a future publication on promising practices for ensuring equal opportunities in STEM programs.
APPENDIX: SUMMARY LITERATURE REVIEW

In developing its Title IX onsite review program, NASA conducted a review of literature regarding gender and STEM programs, including Title IX policy and enforcement in the STEM context. The review continues to be updated as new research and analysis on gender and STEM emerges. It also continues to assist NASA to better understand concerns regarding gender and STEM and how Title IX compliance efforts can assist to address such concerns.

Reports and Studies on STEM

In general the studies and reports NASA reviewed in the literature describe a broad range of gender-related issues in STEM. For example, the 2004 report of the U.S. General Accountability Office (GAO) (referred to above) described participation rates by gender, observing continued low participation for women in certain STEM programs, such as physics and some engineering disciplines. The GAO report also noted the greater drop-off of women as compared to men at every stage, from high school to doctoral programs. The report highlighted the need for steps to help address this, such as strong outreach efforts to increase the interest of younger students in the sciences. In addition, the report recommended that agencies with science missions, such as NASA and the U.S. Department of Energy, conduct Title IX compliance reviews to ensure that grant recipient programs are providing equal opportunity regardless of gender.

NASA also relied on a number of scholarly reports and publications. Prominent among these were the National Academy of Sciences, National Research Council report, To Recruit and Advance: Women Students and Faculty in Science and Engineering (2006) (hereafter cited as NRC Report), the University of California Berkeley, Center on Health, Economic & Family Security report, Staying Competitive Patching America’s Leaky Pipeline in the Sciences (2009) (hereafter cited as UC Berkeley Report), and the


56 U.S. Government Accountability Office (GAO) report, Gender Issues: Women’s Participation in the Sciences Has Increased, but Agencies Need to Do More to Ensure Compliance with Title IX (July 2004).

The NRC Report was itself based on a comprehensive literature review and site visits to four universities “recognized for successfully advancing and retaining women students, faculty or leaders.” The NRC report was a valuable tool to better understand women’s experiences in science, technology, engineering, and mathematics (STEM) studies and helped to guide NASA’s assessment under the instant review of promising practices regarding recruitment and advancement of women students in STEM programs. For example, the report identified the need to create and institutionalize a sustained commitment to diversity among university leaders and administrators. This commitment should be demonstrated by dedicating resources to that effort, e.g., Women in Engineering programs, and through ensuring visibility for women students and faculty in communications materials and the Department’s Website, which can help to show that the program is welcoming and inclusive of women. Another key strategy is to extend outreach to students at the K-12 and undergraduate levels in the form of summer science and engineering camps, lecture series, career days, and mentoring programs.

The NRC Report indicated that specific retention tools such as curricular modifications and “family friendly” policies might also be of assistance in increasing the numbers of women in STEM programs. For example, courses designed to emphasize the societal benefits or “real-world” applications of engineering have broadened the appeal of engineering studies, helping to create more diverse engineering student populations. Regarding “family friendly” policies, the UC Berkeley report notes that to be in compliance with Title IX, recipients must: 1) treat pregnancy as a temporary disability for purposes of calculating job-related benefits, including any employer-provided leave, and 2) provide unpaid, job-protected leave for “a reasonable period of time” if the institution does not maintain a leave policy for employees. The UC Berkeley report also notes that, to help address family and care giving issues, institutions should have in place family responsive policies, benefits, and resources, including time-based policies and benefits such as stopping the clock (i.e., tenure-clock extension), various child care supports such as on- and off-campus centers, monetary supplements such as tuition remissions, and other resources such as lactation rooms.

Overall, the UC Berkeley Report, a major study on experiences of women scientists, found that unfriendly family policies—not lack of interest or commitment—are what turn many women away from academic science. Moreover, the report recommended universities adopt family supportive policies for all classes of researchers, not just faculty members, noting that graduate-student researchers and postdoctoral scholars receive the most limited benefits and yet are arguably the most important people affecting the future of U.S. science. In fact, the report found that this is the biggest leak in the pipeline: the point at which women who have received their Ph.D.s or are working as postdoctoral scholars are making the critical decision of whether to continue their careers in academic research. According to the report, too many of them are deciding not to, often because of their interest in starting a family.

57 NRC Report, Summary, p.2.
58 NRC stated that it “sought to move beyond yet another catalogue of challenges facing the advancement of women academic in STEM to provide a document describing actions actually taken by universities to improve the situation for women.” Ibid., Preface, p. vii.
59 Ibid., chap. 1, p.8.
60 Ibid., chap. 2, p.47.
61 Ibid.
63 UC Berkeley Report, p. 5 (citations omitted).
64 Ibid., p. 6.
Another important tool for STEM departments is training to raise awareness among faculty and students on gender issues such as sexual harassment prevention.65 NASA’s Title IX compliance review program has shown a number of instances where STEM departments may benefit from targeted training to address issues relating to inappropriate gender-related conduct occurring in program settings, such as study groups, labs, and field trips.

The NRC report also described issues that “may not be anticipated” influencing the working environment of the laboratory.66 For example, personal safety issues may be different for women working alone at night in a lab. One faculty member interviewed by NRC commented that whereas general safety issues had been “background noise,” as he put it, the issue of personal safety became a much higher priority when women students joined the lab.

Title IX compliance reviews are also recommended in the literature as a means of addressing environmental issues that may negatively impact women in STEM. For example, the AAUW report Why So Few states ”Title IX reviews can help identify institutional policies and practices that negatively, and in some cases inadvertently, affect personal choices in gender-specific ways. Simply put, Title IX can help create a climate where women and men of similar talent who want to be scientists or engineers have equal opportunity to do so.”

Physics Programs

American Institute of Physics (AIP) Survey Results

To be aware of experiences of women in the physics context, NASA reviewed data collected by the American Institute of Physics (AIP). This data showed some of the concerns of women physics students about their program experiences. For example, a 1993 AIP “climate” survey of physics programs showed that only 27 percent of women graduate student respondents in the U.S. believe that their department encourages self-confidence.68

In its 2001 survey report Women Physicists Speak, AIP observed that: “[w]omen . . . face barriers in the form of strongly held beliefs that [they] are incapable of doing good science”69 and that “[c]onfidence in one’s ability can be especially important for female students when they confront the negative effects of sexism, which can cause women to question their ability or their right to pursue advanced degrees.”70 And, in its 2006 report, Women Physicists Speak Again, the AIP continues to identify climate as one of the top reasons women physicists give for being discouraged about physics.71

65 NRC Report., chap. 4, p. 78
66 Ibid., chap. 2, p. 41.
67 AAUW Report, p. 13 (citations omitted).
68 See Jean M. Curtain, Geneva Blake, and Christine Cassagnau, American Institute of Physics, “The Climate for Women Graduate Students in Physics,” Journal of Women and Minorities in Science and Engineering, vol. 3, pp. 95-117 (1997); see also APS Program Summary
70 Ibid, p. 7.
American Physical Society Site Visit Program

In its literature review, NASA also relied on the summary report of the American Physical Society (APS) Committee on the Status of Women Site Visit Program. The report, “Improving the Climate for Women in Physics,” provides valuable information gathered by APS about women’s experiences in physics programs, based on site visits to over 40 university physics departments across the country since 1990.72 For each site visit, APS reviews quantitative and qualitative information to assess the climate for women at the host facility.

The findings generated from APS’s site visit program provide valuable context for gender equity issues in physics programs. According to APS, generic problems commonly experienced by women in the physics departments reviewed include instances of inappropriate behavior and attitudes such as pictures and computer printouts with inappropriate images of women in teaching assistant’s communal offices; thesis advisors who call their female students "honey" or the equivalent and “a prevalent assumption that all rewards obtained by women are "only because you are a woman."73 APS found that the long term effects of these experiences “takes much of the enjoyment out of the graduate experience of many female physics students and helps to explain why only the very committed and the very tough remain in physics.”74

However, APS reports that the climate for women varies dramatically among the departments it has reviewed, with many positive climates reported.75 Based on its Site Visit Program, APS finds that 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 supportive department chair who listens and responds to concerns of students; and efforts to create a safer physical environment.76

Overall Recommendations

What the research literature tells us is that there are some proactive steps that STEM programs, including physics programs, can take that are consistent with the purpose and intent of Title IX. A small sampling of these steps, representative of the larger themes in the literature on women and STEM, include:

- Engaging in targeted outreach and recruitment;
- Establishing mentoring programs;
- Sustaining strong partnerships with campus professional organizations, such as Women in Engineering;
- Adopting policies that enable faculty, students and employees to combine work, family and other personal responsibilities.
- Conducting on-going self-evaluation efforts consistent with Title IX regulations, that is, a focus on admission and treatment of students, and employment.

Overall, NASA has found that Title IX compliance efforts of educational institutions can help to address such concerns regarding gender and STEM. For example, effective Title IX coordination can establish collaborative partnerships between the Title IX Coordinator’s office and academic departments, ensuring, among other things, appropriate training for faculty and students to raise awareness on gender issues, e.g., harassment and gender bias. Effective Title IX coordination may also ensure that individuals fully understand the process for addressing discrimination concerns, and how to avail themselves of it.

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72 APS Program Summary.
73 Ibid.
74 Ibid.
75 Ibid.
76 Ibid.
In addition, periodic self-evaluation can greatly assist efforts to identify concerns regarding admission and treatment of students, and help programs to address problem areas in a host of specific areas, from stronger outreach and recruitment efforts, to greater transparency in program policies and practices, to program participants’ perceptions of the program environment. NASA has found that the process of a Title IX review itself provides schools with an excellent opportunity to step back and assess their programs in these respects.