

## 2014-2015 Interim Report: UVa CHARGE

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Project Title: Structured Conversations and Re-imagined Spaces: Effecting Systemic Change for Women in STEM at UVA

PD/PI Name:

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Recipient Organization: University of Virginia Main Campus

Project/Grant Period: 10/01/2012 - 09/30/2017

**Reporting Period: 6/1/14 to 11/30/14**

Submitting Official (if other than PD/PI):

- Gertrude J Fraser
- Principal Investigator

**Submission Date: November**

Signature of Submitting Official (signature shall be submitted in accordance with agency specific instructions)

Gertrude J Fraser

## Accomplishments

### *\* What are the major goals of the project?*

UVa CHARGE seeks to foster an empowered collaborative community of women and men STEM/SBE faculty and administrators to identify and ameliorate structural and cultural barriers to women's full participation and advancement in STEM/SBE departments. To that end, the program objectives are to balance the sex ratios of STEM/SBE departments, shift departmental and university culture so that female faculty report feeling recognized, make policies and practices more equitable and transparent in relation to hiring and promotion, and raise the percentile of URM women faculty in STEM/SBE to be equivalent with non-STEM/SBE departments at UVA.

### *\* What was accomplished under these goals (you must provide information for at least one of the 4 categories below)?*

Major Activities:

#### **Initiatives**

##### **1. DDAT:**

- a. **Structured Dialogues:** Created new case studies based on feedback from department chairs, and trained 2 new facilitators. The Biology and Physics departments participated in dialogues using the new method, which proved productive though discussions about change, department culture and gender are still difficult for faculty. Crafted a procedural document outlining the process of the dialogues.
  - b. **Equity Consultants:** meet with search committees or search chairs regularly. Assist with creating gender neutral job announcements, posting jobs in new places, establishing evaluation criteria, structuring the on-grounds interview, and recognizing implicit bias speech and practices.
  - c. **Search Grants:** announced the availability of funds to publicize job announcements in professional associations and other specialty locations, and availability of funds to bring female and URM candidates on grounds for interviews.
2. Space:
- a. **Oral Histories:** conducted 15 interviews and finalized the open coding dictionary, and completed automatic coding by instrument questions. Received IRB permission to include sample of male STEM/SBE faculty and have faculty review their transcripts and reflect on the process with interviewer.
  - b. **Photo Project:** hired a photographer and invited women in the oral histories and other STEM/SBE women to participate. Scheduling photo sessions through the New Year.
  - c. **Social Science Research Project:** analyzed and presented light meter data showing that the majority of the campus registered zero for modal or median light levels. Hypothesis is that female students and faculty do not use the campus at night, including labs, due to safety concerns. Began collecting pre and post lighting upgrade data to measure change in usage of university facilities when lighting is installed; received swipe access data from ID card office to examine student and faculty's use of space after hours before and after lighting is installed. Creating the stimulus materials for study on the built vs natural feel of STEM spaces based on previous work for this grant showing that built spaces feel masculine while natural elements can neutralize/feminize built space.
3. **Tournament of Ideas:** Aligned the Tournament of Ideas with biggest problem faced by UVA regarding recruiting, hiring and retaining women faculty: dual career situations. Data shows this is the primary reason candidates decline offers and CHARGE saw over 5 women decline offers last year. Tournament was held 11/18/14 with four finalists presenting their ideas and a panel of dual career couples discussing experiences. The Tournament was open to all faculty, staff, students, and alumnae and proposal submission came from across the university, including alumna.
4. Recruitment and Retention
- a. **Faculty Search Seminar:** annual event held 9/8 & 9. UNH Power Players performed interactive theater on search committees and faculty dynamics, implicit bias, and communications issues. 2<sup>nd</sup> session faculty learned to use the search committee tools available on the Academic Search Portal. The second day provided professional development training for department chairs on working with and supporting faculty through a performance and discussion by the UNH Power Players.
  - b. **Portal:** Phase 1 of the portal launched to all faculty on September 8 during the Faculty Search Seminar. The portal contains research and data, training and interactive exercises on dual career, implicit bias, the search process and requirements at UVA, and search committee tools to evaluate candidates and mitigate bias in those evaluations.

- c. **SEAS Investment:** allocation of \$540k to be utilized for CHARGE activities following a settlement with a former female engineering faculty member. Funds will be used to improve departmental culture, revise and make more transparent the P&T policies and processes, reduce implicit bias during evaluations, provide professional development training to chairs and deans on equity issues, develop an Academic Search Portal, develop a mentoring program, and improve student teaching evaluation methods. CHARGE provided professional development training to chairs during the Seminar, launched phase 1 of the portal, and began designing a mentoring program in the Engineering School in collaboration with the new mentoring program manager.
5. Enhancement Grants: announced for the fall 2014 and 5 submissions received 11/21/14.

## **Institutionalization**

**Portal and Search Seminar:** VP for Faculty Affairs Kerry Abrams met with the Deans to discuss how to integrate the Faculty Search Seminar and portal into a long-term plan for supporting faculty searches. To date, efforts include linking the Provost Office website to the Portal and discussing long-term goals for faculty searches with the Director of the Executive Search Group (internal to UVa) and connections to the University strategic plan. CHARGE staff plan to have UHR and school HR offices begin to assume many responsibilities for planning and hosting the seminar next year.

**Search Process:** Engineering Dean required all search committees to work with CHARGE and to meet with him to review the process, how the committees mitigated bias, how they used the Academic Search Portal training and evaluation tools, and to review their department demographic data.

**Data Collection, Analysis, Dissemination:** Based on results from the salary equity study, the Provost Office is meeting with Deans to adjust salaries, understand why the salary gap exists, and meet annually with Deans to assess faculty demographics. The Provost Office is expanding the laboratory space study, office space study, start-up package study, and departmental demographic data sheets to the entire university. They will use the departmental demographic sheets to measure departments' efforts to increase candidate pools and diversify hires as the university prepares to hire hundreds of new faculty as retirements increase.

**Equity Consultants:** partnering with Director of HR for Arts & Sciences to institutionalize the activities of Equity Consultants in all departments of School. Faculty have been selected in each department, non-STEM too, to become the EO Coordinator, a 2 year service position added to P&T criteria. Equity Consultants from CHARGE, and others, will train Coordinators in implicit bias interruption, equitable hiring, promotion, and tenure practices, and bias literacy. Support from Dean Baucom, Assoc Deans Hawley & Schoppa, consultants, and co-PI Cohoon. Training begins 2015.

**Dual Career Solutions:** all proposals from the tournament, along with multiple emails outlining solutions and personal testimony, were submitted to Provost Simon and Deans Baucom and Aylor for possible implementation. Remaining funds from this event will support implementation of the solutions. VP Kerry Abrams met with all Deans to discuss dual career challenges and received wide support for reforming UVa processes. Also, Provost office is at a critical point in rethinking their approach to the dual career issue and plans to use the ideas generated to jumpstart their new approach.

## Other Activities

**Lecture:** Hosted Petra Rudolph from the University of Groningen who presented European solutions to “How to Keep women (and Men) in Science”. **Discussions:** At the encouragement of CHARGE PIs Fraser and Norris, the Provost required all Deans to read and discuss Martin Davidson’s book *The End of Diversity as We Know It*. Following that, Dean Aylor (engineering school) required all chairs to read the book and discussed it during a retreat. Chairs and faculty are now discussing different forms of diversity and its impact in the classroom and department. **Tournament:** shared tournament logistic, preparation, and implementation materials with Rochester Institute of Technology so they could conduct their own. **Web Equity Tool:** collaborated with EAB member Cindy Burack to transform her gender equity website assessment rubric into a tool used by website developers, faculty, and staff at UVa. Launched the assessment tool on the CHARGE website and invited university communications offices and departments to assess the gender bias of their sites. **Tournament:** Dean Aylor has requested that CHARGE conduct a series of workshops for search committees on dual career resources, practices, and policies. CHARGE is partnering with VP for Faculty Affairs and UHR Office of Dual Career. **External Advisory Board meeting:** 10/6/14 EAB met with team to help prepare for the 3<sup>rd</sup> year site visit.

### Specific Objectives:

To address the challenges faced by the program that NSF outlined in the first year site visit. Specifically, to expand CHARGE’s outreach and recognition, involve more faculty, complete several initiatives such as the Tournament, to begin institutionalization of the program, find a purpose for the IAB, share the data more widely, and to ensure activities aligned with program goals and outcomes.

### Significant Results:

## Internal Evaluation Activities Since June 2014

1. DDAT:
  - a. **Equity Consultants:** contacted search chairs and consultants to track tools and resources used, diversity of the candidate and interview pools, and the percent of women & URM interviewed, short listed and selected for offers.
  - b. **Structured Dialogues:** worked with program manager to create a semantic differential evaluation tool, post-session evaluation survey and program manager created facilitator reflection data collection tool. Collecting the data after each session
2. Space
  - a. **Oral Histories:** created open ended evaluation questions to ask interviewees during follow-up interviews.
3. **Tournament of Ideas:** tracked the number of proposals submitted
4. Recruitment and Retention
  - a. **Faculty Search Seminar:** conducted a survey with attendees
  - a. **Portal:** collecting data through Google Analytics and will follow up with search committees to determine how they used the search tools; meeting with 2 search committees to receive feedback on the search tools and working with UHR to integrate the HR language on the tools.
  - b. **SEAS Investment:** began incorporating settlement activities into the logic model and evaluation matrix, and creating indicators.
5. **Enhancement Grants:** tracked submissions

**Other Evaluation:** Program manager developed logic model with indicators for program and each initiative. Internal evaluation team created evaluation matrix and revised evaluation plan. Program manager created data collection tools for Equity Consultants, Enhancement grants, search grants, and developed automated template to capture and produce the departmental demographic data and graphs. In Sept. held 2 day consultation with evaluator Melvin Hall to create new SOW and reframe internal evaluation.

## Indicator Results Since June 2014

1. Baselines
  - a. 2010 13% female faculty in STEM; 2013 15% female faculty in STEM, 19% in STEM/SBE
2. DDAT:
  - a. **Equity Consultants:** 4 departments/19 searches using consultants; Astronomy, Civil & Environmental Engineering, & Systems engineering used tools from the portal to evaluate candidates, committees expanded their job postings to SWE and other women's professional societies. Increased conversations and efforts to mitigate implicit bias.
  - b. **Structured Dialogues:** 2 departments participated; 30 individuals total participated. Participants mapped the department culture on semantic differential in first sessions; 2<sup>nd</sup> sessions they mapped changes in department culture based on scenarios. Participants were reluctant to map these and discussed instead. 1 department has not conducted the 2<sup>nd</sup> session.
  - c. **Search Grants:** 3 departments are using CHARGE funds to bring female candidates to campus interviews
3. Space:
  - a. **Oral Histories:** 15 total interviews conducted to date
  - b. **Social Science Research:** Based on our data, the Office of the Architect in collaboration with Facilities & Management re-prioritized their lighting projects and created a 5-year plan for lighting at the University. Following several presentations to key committees (Safety Working Group, Security & General Safety Committee), the 5-year plan has already been approved and fully funded.
  - c. **Social Science Research:** Where students sit in class is associated with their class experience: students who sat in the front of the class had a more positive experience and were more likely to like the course, learn in the course, interact with the professor in and out of class, and study more.
4. **Tournament of Ideas:** 11 submissions from across campus, including 1 alumna; 4 finalists. 35 attendees at the presentation, mostly HR, deans, and provosts. Increased discussion and training among faculty on how to talk to candidates about dual career and what resources are available.
5. Recruitment and Retention
  - a. **Faculty Search Seminar:** 68 faculty attended the seminar; after training on the Search Tools, 85% reported learning how to reduce implicit bias in evaluating candidates and 76% reported learning how to recognize implicit bias in others. 78% reported the Portal will lead to more fair and equitable faculty searches. 19 department chairs attended the chairs session and half were new chairs.
  - b. **Portal:** had 231 page views in October. 26% visited the Dual Career page and 15% visited the search tools spending an average of 3:37 minutes during their visits. 59% of portal users are women and 21% are between the ages of 25-34. Also, several other

universities and the Federal Reserve Board are using our portal, especially the implicit bias pages and search tools.

6. Enhancement Grants: 5 applications

Other achievements:

*\* What opportunities for training and professional development has the project provided?*

**Opportunities for Training**

**OH:** graduate students trained in qualitative data analysis and 3 stages of coding interviews.

**Social Science Research:** trained a new team of undergraduate researchers to collect data with human participants using surveys.

**Opportunities for Professional Development**

**Portal/SEAS Investment:** computer science doctoral student, Samyukta Jadhvani designed and built the portal using Drupal software which she did not know prior to working with CHARGE. She also learned how to work with clients and use the SCRUM method of web delivery.

**Seminar/SEAS Investment:** provided professional development to department chairs on working with and mentoring faculty through interactive theater.

**Tournament/SEAS Investment:** The Tournament provided opportunities for Christina Pappas (a graduate student working on the event) to learn about project management. She gained experience creating and disseminating communications to a large, structurally complicated community; working with sr. staff; budgets; event planning; and gained an understanding of the complexities of dual career hiring at the university level. She will continue with CHARGE next semester.

**Social Science Research:** Trawalter was invited to consult and speak with University Safety Working Group and the Security and General Safety Committee. These experiences have connected the researcher to administrators, who have been instrumental in facilitating access to university data needed for the study but previously difficult to obtain.

*\* How have the results been disseminated to communities of interest?*

**Communications & Media**

CHARGE significantly expanded its media and communications presence during this reporting period. The program partnered with communications offices in all schools to disseminate invitations; created a listserv with 484 members; launched a very active Facebook page with over 100 followers; launched a monthly newsletter; and posted program information and events on school eboards, university calendars,

table tents in dining halls, and departmental and student listserves. The Faculty Search Seminar, Tournament, the Social Science Research, and Portal received feature articles in UVA Today. Only 12% of Seminar attendees had not heard of CHARGE prior to the event, and many were new faculty. We added google analytics to the website, which had 1164 visitors in September and October with 41% returning visitors.

## Conferences & Publications

**PI Fraser:** attended the “National Summit on Diversity in the Economics Profession” and presented on the Academic Search Portal and departmental data sheets.

**Co-PI Trawalter:** is currently writing the first manuscript on the built/natural space work.

### *\* What do you plan to do during the next reporting period to accomplish the goals?*

**Structured Dialogues:** set up the Legacy Dialogues, hold dialogues for 2 engineering departments, and implement the cross-department dialogues.

**Equity Consultants:** have search committees sign up with consultants prior to start of fall searches; begin working on institutionalization of consultants in Arts & Sciences.

**Photos:** will plan for virtual photo exhibit fall 2015 that incorporates oral testimonies of subjects in advance of gallery exhibit in 2016.

**Oral History:** finish analyzing the data and begin reviewing transcripts with interviewees and conducting the evaluations.

**Social Science Research:** We will obtain and analyze the swipe access data and conduct an experiment in which we manipulate safety concerns and measure men’s and women’s intentions to work in offices, labs, and/or libraries on campus, and performance on a cognitive task. This study will test the possibility that safety concerns disproportionately affect women’s productivity.

**Portal:** The second phase of the portal is underway and will include FAQs for search committees, additional training on implicit bias, and more connections to university resources and outside resources.

**SEAS Investment:** bring in consultants to develop and design the P&T training, begin revising P&T policies and procedures; support mentoring program in SEAS

**Institutionalization Portal & Seminar:** long-term plan is to merge the portal with other search committee resources to create a centralized hub for all faculty searches.

## Impacts

### *What is the impact on the development of the principal discipline(s) of the project?*

**Tournament:** Increase the number of women who accept offers from UVa’s STEM/SBE departments. Retain female faculty.

**Social Science Research:** We hypothesize that safety concerns likely affect women in STEM disproportionately because these women must do their scholarship in lab spaces. Safety concerns might keep women from working

longer hours at night and undermine women's productivity in STEM fields. If true, this would provide evidence for yet another (and heretofore unexamined) way in which women are disadvantaged in STEM

### *What is the impact on other disciplines?*

**Tournament:** Ideas on dual career solutions reframed the problem as supporting career agency not handing out jobs, which applies to all dual career hires. Implemented solutions may improve the University's ability to empower accompanying spouses of faculty and staff across grounds.

**Social Science Research:** This work is becoming increasingly interdisciplinary. For example, we are now working with staff to map features of the environment using Geographical Information Systems (GIS). We will then overlay these maps with *psychological* features of the environment (e.g., how safe women vs. men feel), which is new to GIS and this research may have an impact on GIS research and human geography more generally.

### *What is the impact on the development of human resources?*

### *What is the impact on physical resources that form infrastructure?*

**Social Science Research:** the Office of the Architect and Facilities & Management have re-prioritized lighting projects and a 5-year lighting plan has already been fully funded

### *What is the impact on institutional resources that form infrastructure?*

### *What is the impact on information resources that form infrastructure?*

**Portal:** the university recently switched platforms to Drupal and began creating standards for department and program websites. CHARGE partnered with the Communications office to incorporate the standards in our Portal and build the portal on Drupal. Once the university is ready to manage the portal, it can easily transfer to a permanent office.

**Social Science Research;** we would like to see University offices that collect large data sets make big data about University operations more readily available.

**Faculty Data:** worked with Office of Institutional Assessment to create database that better tracks primary assignment of all faculty including admin faculty, resulting in more accurate data.

### *What is the impact on technology transfer?*

### *What is the impact on society beyond science and technology?*

**Social Science Research:** We believe this work will make a perceptible change in students', faculty members', and staff's felt safety and sense of belonging. Students, faculty, and staff who feel like they belong at the University do better and stay longer. CHARGE argues that feeling safe at the University has to be a prerequisite for a sense of belonging. If this is correct, the research could be implemented at other universities.

## **Changes/Problems**

### *Changes in approach and reason for change*

**Structured Dialogues:** adapted structured dialogue to include non-departmental based small groups to allow cross-departmental participation that breaks up department hierarchies and existing culture. Another change is in response to sr. faculty disrupting discussions. Will create 'legacy dialogues' to discuss changes in the culture of the University over decades of their service. New dialogue developed for senior members to elicit their perspective on changes toward more inclusion at the university. What worked and how did they contribute to positive change in advancing and recruiting women into their disciplines and departments.

**Photography Project:** will create virtual exhibit and include statements from portraiture subjects in response to the questions: What compels you to be an engineer or scientist, or social scientist and what accomplishment are you most proud of to date?

**Social Science Research:** the longitudinal study planned for years 4 & 5 has been replaced by 2 studies based on the results of earlier research. The swipe access data analyses looking at student and faculty use of space across time will include tests on whether events related to felt safety disproportionately affect women's use of space at night. This will include an experiment in which researchers manipulate safety concerns and measure men and women's intentions to work in offices, labs, and libraries on grounds and performance of a cognitive task.

**Evaluation:** CHARGE had difficulties collecting indicator and evaluation data for the first 2 periods due to lack of clarity about formative vs summative evaluation, and termination of the external evaluator sub-contract. Since June, CHARGE replaced the external evaluator and wrote scope of work for summative evaluation; revised scope of work for internal evaluators to reflect internal formative evaluation practices and standards; management and evaluation team established indicators for each activity and initiative; developed the logic model; altered metrics related to increased hiring of women to measure number of offers made to women, number offers declined and reasons for declination; established semantic differential evaluation tool for Structured Dialogues and began collecting data; created and distributed data collection and reporting tools to Equity Consultants to better track their outputs and outcomes.

**Internal Advisory Board:** revised the mission of the IAB to focus on facilitating institutionalization of CHARGE. Reconfigured members and began inviting new members.

### *Actual or Anticipated problems or delays and actions or plans to resolve them*

#### **Data Challenges:**

**Department Demographic Data:** CHARGE learned that the university counts faculty by tenure department, however, this is not always the department where faculty work. This meant the department demographic data previously presented had not reflected department realities. CHARGE worked with the Office of Institutional Assessment to create a method that pulled the data by primary assignment and still capture faculty administrators. CHARGE then created an automated demographic template that presented the department and pipeline data, auto generated graphs and tables, and created individual department reports.

**Social Science Research:** Trawalter's team had difficulty obtaining university swipe access data showing who entered a building and at what time. Various university offices claimed the data did not exist, then claimed they could not access it and then claimed they could not provide it. They also had difficulty accessing the student id data to obtain the gender of people entering buildings to match to the swipe access data. After a presentation to the newly formed Safety Committee, access and data were granted.

## **HR Processes**

**Equity Consultants:** Search Chairs and department admin staff are not aware/have opposing views of HR processes such as posting job announcements; updating candidate status etc; departments are not leveraging their resources to use a job posting service such as Graystone and often complain that it costs too much to advertise jobs in professional societies or other venues that target women & URM. CHARGE is working with department faculty, UHR, and department HR to address misconceptions, misinformation, and streamline the job posting process.

## **Administrative Changes**

**Resignation of Provost** in October the President announced Provost Simon will step down in July 2015 to become the president of Lehigh University. Provost Simon has been a strong supporter of CHARGE, meeting regularly with the PIs and Program Manager. We are building stronger relations inside the Provosts office as staff changes continue and plan to work with the internal Executive Search Group who will manage the hire of a new Provost.

**Promotion of Archie Holmes** to Vice Provost has meant Archie's role on CHARGE has shifted to become an ally in the Provost Office.

**Promotion of Dinko Polcanic** to Assoc. Dean has meant we have an Implementation team member in the senior administration of the College of Arts and Sciences.

**Same Sex Benefits:** state law now allows same-sex marriage and provides benefits, a shift in institutional orientation on equity and inclusion and expands CHARGE's scope.

## *Changes that have a significant impact on expenditures*

### *Significant changes in use or care of human subjects*

Nothing to report.

### *Significant changes in use or care of vertebrate animals*

Nothing to report.

### *Significant changes in use or care of biohazards*

Nothing to report.

## **Special Requirements**

*Responses to any special reporting requirements specified in the award terms and conditions, as well as any award specific reporting requirements.*

Due to deliberations between the UVA Office of the Provost and the Office of the General Counsel, UVA CHARGE was unable to release the results of a salary equity study that was conducted in 2012-13. The results of that study are summarized in a report that is now available for release and is attached to this mid-term report.