Post-conference survey for the 2016 Grace Hopper Celebration of Women in Computing

Carole-Jean Wu, Faye Navabi, Kanika Grover, and Sharon Hsiao

November 2, 2016

School of Computing, Informatics, and Decision Systems Engineering
Arizona State University
Grace Hopper Celebration of Women in Computing

• Every year, women technologists and the best minds in computing convene to highlight the contributions of women to computing.

• The conference results in collaborative proposals, networking and mentoring for our attendees. Conference presenters are leaders in their respective fields, representing industry, academia and government. The conference also offers professional development through a variety of activities.

• Held at Houston Convention Center, Oct. 19-21, 2016
ASU’s Presence at GHC

- 50+ undergrad. and grad. students at GHC-2016, held in Houston.
- 50+ undergrad. and grad. students at GHC-2015, held in Houston.
- 100+ undergrad. and grad. students at GHC-2014, held in Phoenix.
  - We were the #1 top-attending university!
Thanks to Our Sponsors

• We raised a total of ~$60,000 to establish the ASU GHC scholarship program to support our 50+students to attend the conference
  – BRAID: Building, Recruiting And Inclusion for Diversity
  – School of CIDSE/Askin+Gupta
  – GSI/Bliss
  – FSE recruitment/Phelan
  – Visualization/Maciejewski
  – FSE development office/Wahls

3% 12% 17% 17% 51%
Thanks to Our Staff Team

- Rebekah Padden and Beverly Naig
  - Accounting
- Mike McBride and Stephanie Mabee
  - Recruitment materials
- Theresa Chai
  - Travel reimbursement
- Joe Kullman and Peter Zrioka
  - Promotional article and photograph
- David Wahls and Margo Burdick
Thanks to Our Students

• Women in Computer Science
• Nichole Emmons, Waverly Roeger, and Lisa Baer
Pre-conference Information Session
Pre-conference Information Session
Our Faculty Mentors at GHC

Faye Navabi & Kanika Grover
Post-conference Survey

• Post-conference survey was conducted soon after the conclusion of GHC

• Survey
  – 15 multiple choice/short answer questions
  – 47 responses (94% response rate)
Degree Distribution

Standing (47 responses)

- Freshman: 17%
- Sophomore: 8.5%
- Junior: 14.9%
- Senior: 29.8%
- MS/MCS: 19.1%
- PhD: 10.6%
- Other: 0%
# of talks attended at GHC

How many talks did you attend during the entire conference (47 responses)
89% agreed on GHC experience reinforces confidence in succeeding in CS

GHC experience reinforces my confidence in succeeding in Computer Science

(47 responses)
87% agreed on GHC reinforces confidence in solving important world problems

GHC experience reinforces my confidence in solving important world problems
(47 responses)
62% became more interested in pursuing advanced degrees

Did the GHC attendance affect or strengthen your intention to pursue advanced degrees such as MS or PhD?

(47 responses)
53% became more interested in pursuing advanced degrees at ASU

Did the GHC attendance affect or strengthen your intention to pursue advanced degrees at ASU?
(47 responses)
96% students helped at the ASU booth

Did you stop by our ASU booth during your assigned time slot? (47 responses)
79% students plan to attend GHC-2017

Do you plan to attend GHC-2017? (47 responses)
81% students consider submitting a technical poster presentation for GHC-2017

Would you consider submitting a poster to GHC-2017? (47 responses)
Short Question (1)

• How have you benefited from receiving the ASU GHC scholarship to attend the conference?
How have you benefited from receiving the ASU GHC scholarship to attend the conference?

- “I feel so much more empowered. *It was incredible to see people overcome incredible things and be able to do incredible things*”
- “… *it was interesting to see the different variations in tech careers that are possible.* I now know the options available to me and the careers paths that I can take when I enter the job market.”
- “*It was empowering to be surrounded by a community of such talented women,* and I know that I would not have been able to experience this conference as a student without the ASU GHC scholarship. Thank you!”
How have you benefited from receiving the ASU GHC scholarship to attend the conference?

• “Attending GHC not only gave me motivation to keep working hard towards my degree, but it made me excited about my future in the tech world. It was truly amazing to hear from successful women in the technology industry.”

• “This conference opened my eyes to what technology can do for the world and what I can do with technology. …I loved attending various panels/sessions and getting to learn about topics I had previously not considered pursuing.”

• “The partial scholarship covered my registration fee and hotel. If it wasn't for this I wouldn't have been able to attend at all. I would have missed out on the inspiration, my job interview, the connections I made and the much-needed encouragement I received.”
How have you benefited from receiving the ASU GHC scholarship to attend the conference?

• “Prior to attending GHC, I had many doubts about my major. Hearing about the imbalance between men and women in Computer Science made me doubt my ability to stay in this field. However, attending GHC confirmed that it is possible. I heard stories about change and how many are trying to help balance the ratio of men to women in Computer Science. This gave me hope that when I enter the workforce, there will be more diversity. Overall, *GHC strengthened my resolve to stay in Computer Science*, it helped me meet amazing women, and expanded my horizons when it comes to companies I can work for.”
Short Question (2)

• What are some of the important things you learned that better prepare you for your degree and your future career?
What are some of the important things you learned that better prepare you for your degree and your future career?

• “To get ready my mind to study hard for getting a job in the future”

• “I learnt that by improving my programming skill along with my mathematical skills I have a good chance for many careers.”

• “I learned the importance of being passionate about what you are doing, to take specific interest into everything that you do, because it all is revenant whether you know it or not. I also attended a lot of talks about web development and other practical aspects of computer science that really aren't covered too much in the computer science degree program.”
What are some of the important things you learned that better prepare you for your degree and your future career?

• “What sort of classes to take to better prepare myself for my future career, e.g., statistics for data analysis.”
• “I learned that a path to success is different for everybody. For some people it is longer and for some it is short. So the most important thing is to never give up on your goals.”
• “It is important to keep up with your coursework and pay deep attention in class because you are more than likely to be asked something from class in a technical interview 😊”
• “After attending a session on EdTech and a session on machine learning I realized I want to try to learn more about how computers can be used to fuel education.”
“Sometimes it seems as if majoring in computer science has a very narrow focus as to what sort of jobs someone majoring in computer science is expected to have. However, there is actually so much more out there to be explored. Furthermore, a practical thing I learned is that no one is automatically good at technical interviews. They take practice and sometimes you have to put yourself out there just to get experience with them.”
“I can work in the medical industry, with non-profits, and insurance companies. I also heard from other women how important it is that I start delving into research and gaining experience so that I can be a strong candidate for internships and other opportunities. Many companies work with multiple programming languages so, in the future, I will try to learn other languages other than Java.”
Short Question (3)

- Did anything you learned or experienced at GHC have an impact on your approach to your studies in Computer Science? If so, how?
Did anything you learned or experienced at GHC have an impact on your approach to your studies in CS? If so, how?

• “Yes. I will improve my programming skill to a professional level.”
• “I am going to do more projects outside of school because classes don't give your real world experience.”
• “Yes! I learned a great deal about current topics such as Artificial Intelligence and Data Science. This has helped shaped the material I want to pursue.”
• “This really opened my eyes about how important everything we are learning really is.”
• “I definitely am thinking more about the impact of my work on the greater whole now. E.g., In my data mining project, thinking about individual's security and rights.”
Did anything you learned or experienced at GHC have an impact on your approach to your studies in CS? If so, how?

- “Now I'm so motivated to learn because I have seen how what I'm learning will help me to impact the world.”
- “It made me appreciate what I'm learning in my classes more. Seeing the real world application of classes re-sparked my interest in my classes.”
• “This motivated me about the possible projects and applications of computer science that can commit some social justice. The seminars that I chose to attend were focused on how one can apply computer science to help those around us through methods ranging from data analysis to cyber-security to virtual reality. The possible routes that someone in computer science can take are endless and it left me with motivation to explore what I am interested in and engineer to find ways to help people through my own research.”
Short Question (4)

• Did the GHC attendance affect or strengthen your intention to continue pursuing technical areas in Computer Science or related fields? If so, how does it affect your career decision?
Did the GHC attendance affect or strengthen your intention to continue pursuing technical areas in CS? If so, how?

• “Yes, *I feel now that an advanced degree in Computer Science will be great.* I talked to other attendees who completed their Master's and learned a great deal about the new courses and projects in grad. school.”

• “*It strengthened my decision to go into this field.* I know that I feel like an imposter most of the time and with so few women in my classes I don't have a lot of people that I can talk about how they're handling the program. GHC gave me a chance to talk to other students that are at different points in their studies and I found that the way I feel is pretty common.”
Did the GHC attendance affect or strengthen your intention to continue pursuing technical areas in CS? If so, how?

• “It continued to make me feel at home in my degree, which I believe is very important to success.”
• “Prior to GHC, I was feeling extremely bummed and stressed about how hard this major is, but attending GHC and seeing how the hard work can pay off really inspired me. Upon return I felt energized and excited to continue towards my degree.”
Short Question (5)

• Any other feedback?
Any other feedback?

- “I am very grateful for ASU scholarship that was provided to us and made this experience possible.”
- “I really appreciated that ASU has demonstrated such a strong commitment to promoting women in computing by sponsoring so many students to attend. Thank you again!”

- And many many “thank you ASU/CIDSE/program organization team” in various different forms 😊
Summary

• Our 3-year GHC scholarship program has made a significant impact on ASU student experience in CS and CS-related majors
  – Strengthen ASU visibility on its commitment in building, recruiting, and inclusion for diversity
  – Align well with our CIDSE goal of retention
  – Enhance ASU graduate program recruitment
  – Inspire ASU students to work on and solve challenging, important problems
  – Provide professional career development
Shall we continue to send our students to future GHCs?

• Of course! ;)
  – This is an investment that pays off in multiple ways

“This was my third GHC. The first GHC I learned about the different things CS has to offer. My second GHC, I prepared myself and interviewed with 5+ companies. I ended interning with Apple as a CODE2040 fellow. My third grace hopper, I attended any different workshops, networked with people, and built stronger connections.”
Thank you!

Complete response is available upon request (carole-jean.wu@asu.edu)