TECHWOMEN

Mentorship and Exchange Program for Women in STEM

Evaluation of the
2011 - 2019 cohorts

Background of TechWomen Program

Responding to a dearth of female graduates from Science, Technology, Engineering, and Mathematics (STEM) fields in 114 countries*, the U.S. Department of State's Bureau of Educational and Cultural Affairs (ECA) began implementing the TechWomen program in 2011 through the Institute of International Education (IIE). During the five-week program, participants engage with female leaders in project-based mentorships at leading companies in the San Francisco Bay Area, participate in professional development workshops and networking events, and travel to Washington, DC for targeted meetings and special events. TechWomen aims to strengthen participants' professional capacity, increase mutual understanding between key networks of professionals, and expand women's and girls' interest in STEM careers by exposing them to female role models. As of 2019, 722 alumnae from 22 countries have connected with over 800 mentors from 122 companies in the U.S.

* Wadhwa, Divyanshi. "There Are Fewer Female than Male STEM Graduates in 107 of 114 Economies." World Bank Blogs, 17 May 2019, blogs.worldbank.org/opendata/there-are-fewer-female-male-stem-graduates-107-114-economies.

Evaluation Methods

382 alumnae surveyed in **22** countries
156 mentors surveyed
107 alumnae interviews in **9** countries
82 mentor interviews
+ Social Network Analysis**
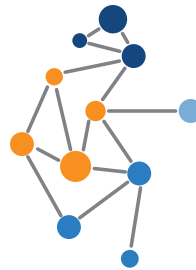
** SNA is a technique to analyze and graphically represent the structure, quality and number of relationships in a network. Using survey data from alumnae and mentors, the evaluation team conducted an SNA of the TechWomen network.

TechWomen program impacts on alumnae home communities

TechWomen alumnae are leveraging their networks to create change in their home communities through STEM-focused initiatives, advocacy initiatives in the areas of STEM education or information and communication technology (ICT) policies, or through impact projects/action plans that are developed to target socioeconomic challenges.

- More than **90%** of alumnae surveyed are mentoring women and girls in their home country.
- **Nearly half** of alumnae interviewed are mentoring girls in STEM *formally* (through a program) or *informally* (girls met through a network or activity, and in universities).
- **54%** of alumnae surveyed claimed that TechWomen helped them make changes in both their community and company

"What I have learned from TechWomen...[is] that I'm capable to do a lot of things. I was so self-blocked...it was really like that I'm not enough...I am doing a lot of mistakes and [it was] so difficult and everything. But after TechWomen I changed my mindset...I am seeing that this is another chance for change and the opportunity for change and improving."

(Alumna - Kyrgyzstan)

TechWomen alumnae are establishing and maintaining networks with other alumnae from their cohort most commonly, but also within their countries (outside of their cohorts) and regions to some extent.

COUNTRY

- The structure of alumnae networks varies from country to country, influenced by geography, political situation, and alumnae participation
- Collaborations among alumnae happen primarily at the country level rather than within cohorts
- Implementation of Impact projects strengthen in-country alumnae networks

REGION

- Alumnae have established regional TechWomen alumnae networks
- Alumnae maintain both professional and personal relationships with each other at the regional level
- Sharing a common language helps facilitate collaboration at the regional level

COHORT

- The strongest connections between alumnae are found within cohorts
- TechWomen are highly likely to build relationships characterized by frequent communication at the cohort level
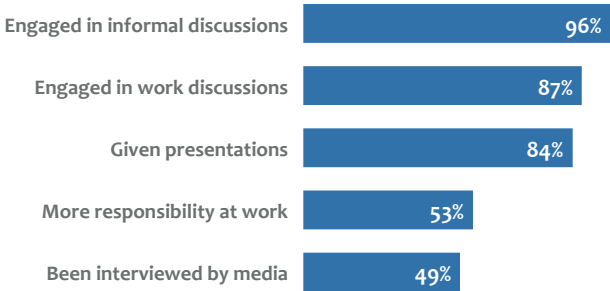
Types of Networking Outcomes as a Result of Participation in the TechWomen Program

Engaged in informal discussions	96%
Engaged in work discussions	87%
Given presentations	84%
More responsibility at work	53%
Been interviewed by media	49%

Social media plays a significant role in maintaining alumnae, mentor and alumnae-mentor networks

According to the survey, alumnae had an average of 6.85 relationships with mentors, and mentors reported an average of 10.78 relationships with alumnae, suggesting that each alumna and mentor maintains a healthy level of engagement in the network.

Impacts on U.S.-based Mentors

- Mentors' relationships with alumnae are based on deep personal connections forged during the alumnae's time in the San Francisco Bay Area.
- U.S. mentor average satisfaction (5.66 out of 7) with mentee relationships was high.
- 1,349 relationships were established between surveyed mentors, with each mentor having between 1 and 41 relationships with other mentors.
- 62% of reported ties among the mentors included a mutual collaboration.

"With TechWomen, I was able to learn how to network to scale the work that I do. I know that if I was not an alumna of the TechWomen program, I would not be able to access the funds that the embassy is giving me. That has really gone a long way to scale the work that I do...Less than a year after the program, I was able to get support for other TechWomen and even support from the embassy."

(Alumna - Kenya)