TechEEs
GLOBAL COVID-19 Impact Pilot Survey
Report
Historically, disasters have had a disproportionately negative impact on women, and women have taken longer to recover from the effects.\(^1,2\)

Furthermore, during times of economic downturn, many companies cut back on their efforts to promote diversity, equity, and inclusion, jeopardizing the already low representation of women in technology.\(^3\)

Representation of intersectional women in technology is critical to ensuring that technology is focused on the needs of women around the world as they deal with and recover from COVID-19.

AnitaB.org conducted the Technical Equity Experience (TechEES) Global COVID-19 Impact Pilot Survey between March 27, 2020, and April 6, 2020, to understand the unique impact of COVID-19 on technical women. This survey was a pilot intended to shape future ongoing research that will be used to help the computing and technical ecosystem cope with COVID-19 and the economic downturn. The survey examined COVID-19-related changes in personal experiences with work, school, domestic life, and health & well-being, as well as institutional support needed by women technologists. The survey had 2,620 total responses: 80% women, 78% technologists, 47% people of color, and 28% LGBTQ. This report focuses only on responses from women technologists and outlines the findings of the survey, as well as action items for policy makers and workplaces to help support women technologists. AnitaB.org will continue to track the pandemic’s evolving impact on women in technology, as well as the supports they need to cope.

Findings Overview
# Technologists

## JOB SECURITY

<table>
<thead>
<tr>
<th>Women technologists are experiencing increased levels of job insecurity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>46% Are worried about losing their job.</td>
</tr>
<tr>
<td>21% Report it is likely they will lose their job.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Women are concerned about their ability to find a new job.</th>
</tr>
</thead>
<tbody>
<tr>
<td>43% Women Technologists</td>
</tr>
<tr>
<td>57% URM* Women Technologists</td>
</tr>
</tbody>
</table>

Report that if they lost their job, it would be hard to find a new one.

## COST-CUTTING MEASURES

Employed women report cost-cutting measures at their places of work:

<table>
<thead>
<tr>
<th>Hiring freezes</th>
<th>Rescinded or canceled internships</th>
<th>Layoffs or furloughs</th>
<th>Reductions in benefits</th>
<th>Wage reductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>39%</td>
<td>22%</td>
<td>21%</td>
<td>19%</td>
</tr>
</tbody>
</table>

## DOMESTIC LABOR

All technical women have seen an increase in domestic labor of an average of 9 hours per week. This number is significantly linked to being a caregiver, number of kids, being a member of an underrepresented minority group, and sexual orientation.

<table>
<thead>
<tr>
<th>WOMEN TECHNOLOGISTS</th>
<th>WOMEN TECHNOLOGISTS WITH KIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>+9 hours per week</td>
<td>+17 hours per week</td>
</tr>
</tbody>
</table>

## HEALTH & WELL-BEING

52% of women technologists report a decline in mental health and 32% of women technologists report a decline in physical health.

<table>
<thead>
<tr>
<th>Mental Health</th>
<th>Physical Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>52%</td>
<td>32%</td>
</tr>
</tbody>
</table>

## WORKPLACE EXPERIENCES

Women technologists report increases in fear, numbness, or stress (67%), stress about personal finances (61%), and loneliness (57%).

<table>
<thead>
<tr>
<th>Fear, Numbness, Stress</th>
<th>Stress about Personal Finances</th>
<th>Loneliness</th>
</tr>
</thead>
<tbody>
<tr>
<td>67%</td>
<td>61%</td>
<td>57%</td>
</tr>
</tbody>
</table>

In addition to dealing with increased domestic labor, women technologists are experiencing further complications with their jobs as a result of the COVID-19 outbreak including increased workload from employer (32%), decreased productivity (41%), decrease in ability to concentrate (46%), and decrease in uninterrupted work hours (29%).

## FINDINGS OVERVIEW

Women are concerned about their ability to find a new job.

<table>
<thead>
<tr>
<th>Women Technologists</th>
<th>URM* Women Technologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>43%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Report that if they lost their job, it would be hard to find a new one.

* Underrepresented minority groups (URM) include individuals identifying as: Black/African American, Hispanic/Latinx, American Indians/Native Americans/First Nations, or Pacific Islander/Native Hawaiian. For more info: AnitaB.org, "Toward greater representation and equity in tech" (2018).
Technology Students

International women technology students are struggling more than domestic students with needs that were previously provided by their schools, such as internet, food, and shelter. International students have 6.2 times the risk of domestic students for homelessness during the COVID-19 pandemic, and they point to their lack of local social support as a primary reason for their vulnerability during this time.

33% of women technology students say that COVID-19 may delay their ability to graduate.
Workplace Experiences
Technical women are experiencing increased levels of job insecurity and concerns about their finances. 46% of employed technical women state that they are concerned about losing their job, and 21% report that it is likely that they will lose their job due the impact of COVID-19 on their workplace. These responses are in line with observations respondents have made about cost-cutting measures their workplaces have taken: 22% report layoffs and furloughs have begun, while an additional 44% state that they are concerned that this will happen in the near future. Fear of losing one’s job is exacerbated by the global economic downturn and resulting challenges facing job seekers: 43% of women technologists and 57% of URM women technologists state that if they lost their job, it would be hard to find a new one. Despite cost-cutting measures, 81% of women technologists approve of their workplace’s response to COVID-19.

However, many technologists are not able to fully work from home, and 36% of women technologists state that they are essential personnel who must report on site for work. Qualitative data suggest that many women feel that their companies are unnecessarily requiring them to come into their places of business.

Further qualitative analysis shows that employees feel it is vital that their companies increase safety measures at their places of work for essential employees, and many women report that their companies have been proactive in adopting new safety measures.
“My company is taking advantage of the fact that they are an essential company to have anyone they want report to work.”
- Essential employee women technologist respondent

Action Items
- Increase safety measures for essential employees: increase cleaning frequency, provide hand sanitizer, masks, and other safety equipment, set up workspace to encourage social distancing, stagger schedules so fewer people are in workspace
- Maintain frequent and transparent communications with employees, especially if your company is employing cost-cutting measures
- If possible, provide additional paid leave time for all employees to take care of themselves & their families
- Evaluate whether all your current essential personnel are truly essential and need to report on site; collaborate with your essential employees to determine if any of them feel their job could be accomplished partially or fully remotely
- Allow remote work for as many employees as possible and ensure that they have the equipment & virtual tools needed to successfully work remotely

More Essential Personnel women technologists are experiencing increased workload since COVID-19 than non-essential women technologists.

Women Technologists report that their companies have enacted multiple cost-cutting measures.

Supportive Corporate Practices needed by women technologists

<table>
<thead>
<tr>
<th>Practice</th>
<th>Essential</th>
<th>Non-Essential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Work</td>
<td>41%</td>
<td>9%</td>
</tr>
<tr>
<td>Increased Safety Measures</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Regular Communications</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Flexible Schedule</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Equipment &amp; Tools to Work from Home</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Financial Support</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Health Coverage &amp; Benefits</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Job Security / Continued Pay</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Increase Paid Leave</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Mental Health Support &amp; Services</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Social Support</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

More essential personnel women technologists are experiencing increased workload since COVID-19 than non-essential women technologists.

Women technologists report that their companies have enacted multiple cost-cutting measures.

- 50% Implemented Hiring Freezes
- 39% Postponed or Rescinded Internships
- 22% Laid-off or Furloughed Employees
- 21% Reduced or Froze Benefits
- 19% Cut Wages of Non-Executives
- 14% Cut Wages of Executives
Women technologists are struggling with balancing their work with the increased domestic responsibilities brought on by COVID-19. 46% of women technologist respondents are also primary caregivers. Regression analysis reveals that being a caregiver, as well as number of children in the home, are linked to an increase in weekly hours spent performing domestic labor. Although all women technologists have seen an average increase in domestic labor of 9 hours per week, women technologists with kids have seen an average increase of 17 hours a week. Domestic labor continues to increase for URM women technologists.

Finally, there is a significant difference in increase in hours of domestic labor between women with kids who are members of the lesbian, gay, bisexual, transgender, and questioning (or queer) community and women with kids who are not in this community, with heterosexual women seeing an increase of 8 more hours more per week.
In addition to dealing with increased domestic labor, women technologists are experiencing further complications with their jobs as a result of the COVID-19 outbreak:

- 46% decrease in ability to concentrate
- 41% decreased productivity
- 32% increased workload from employer
- 29% decrease in uninterrupted work hours

Action Items

- Increase opportunities for flexible schedules; ensure that leadership voices & models strong support for utilization of flexible schedules
- If possible, decrease workload and/or readjust timelines
- Show your support for shared domestic labor by ensuring that caregiver leave is equally available to employees of all genders
- Ensure that men feel equally supported in using their caregiver leave
- Bring awareness to the unequal distribution of domestic labor and encourage more equal distribution of housework and childcare
- Acknowledge & be empathetic to the struggle of balancing work and domestic life for employees & communicate all resources available to support employees with this balance
- Federal, state, and local governments should designate childcare provider as essential in order to support essential workers

"I went from one job to multiple full-time jobs."
- Primary caregiver women technologist respondent

CHANGES IN WORK-LIFE BALANCE EXPERIENCES OF WOMEN TECHNOLOGISTS SINCE THE OUTBREAK OF COVID-19

<table>
<thead>
<tr>
<th></th>
<th>Decrease</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housework</td>
<td>7%</td>
<td>61%</td>
</tr>
<tr>
<td>Childcare</td>
<td>4%</td>
<td>34%</td>
</tr>
<tr>
<td>Workload</td>
<td>21%</td>
<td>32%</td>
</tr>
<tr>
<td>Productivity</td>
<td>42%</td>
<td>28%</td>
</tr>
<tr>
<td>Uninterrupted Work Hours</td>
<td>30%</td>
<td>28%</td>
</tr>
<tr>
<td>Ability to Concentrate</td>
<td>47%</td>
<td>23%</td>
</tr>
</tbody>
</table>
Students
Women technology students’ top three concerns in relation to COVID-19 are (1) loved ones contracting COVID-19, (2) contracting COVID-19 themselves, and (3) their own mental health & wellbeing. Students also ranked concern for their education highly, and noted the following impacts of COVID-19 on their education:

- **33%** - May delay ability to graduate on time
- **14%** - Had to drop some or all of their classes
- **14%** - May not be able to return to school next year

Women technology students also report concerns about their ability to find or keep internships or jobs, or report the following experiences with potential employers:

- **40%** - Have had a job or internship interview canceled
- **31%** - Have had their job offer postponed or rescinded
- **28%** - Have been laid off from their internship or job
- **25%** - Have had their internships postponed or rescinded

Furthermore, some women technology students face additional struggles related to the disruptions to basic services that were provided by schools prior to the outbreak of COVID-19. These struggles present even more amongst international students, who report their lack of local support networks as a primary contributor to these challenges. International students have **6.2 times the risk of domestic students for homelessness or unstable housing during the COVID-19 pandemic** versus their pre-COVID-19 risk ratio of 2.5.

<table>
<thead>
<tr>
<th>Women technology students experiencing</th>
<th>Domestic Students</th>
<th>International Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food insecurity</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>Lack of access to reliable internet</td>
<td>39%</td>
<td>77%</td>
</tr>
<tr>
<td>Homelessness or lack of stable housing</td>
<td>13%</td>
<td>28%</td>
</tr>
</tbody>
</table>
• Facilitate virtual career fairs & inform students of other virtual career fair options

• Provide flexibility for coursework and deadlines

• Connect students to virtual mental health resources provided by the school & the broader community

• Ensure that all students have access to stable internet connectivity & other equipment needed to learn virtually

• Assist students in securing stable housing

• Provide additional virtual social opportunities for international students

• Companies that are in a position to do so should commit to virtual internships & virtual career fairs

### Action Items

**STUDENTS**

- Flexibility with coursework
- Partial refund of tuition
- Mental health resources & support
- Resources to assist in distance learning
- Additional financial aid to support students who need access to basic services or have lost jobs or work study pay

### WHAT STUDENTS SAY THEY NEED THEIR SCHOOLS TO PROVIDE

<table>
<thead>
<tr>
<th>Decrease</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loneliness</td>
<td>73%</td>
</tr>
<tr>
<td>Numbness, Fear, Disbelief</td>
<td>70%</td>
</tr>
<tr>
<td>Stress About Finances</td>
<td>68%</td>
</tr>
<tr>
<td>Anger or Irritability</td>
<td>52%</td>
</tr>
<tr>
<td>Grief</td>
<td>42%</td>
</tr>
<tr>
<td>Feelings of Connection</td>
<td>29%</td>
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</tbody>
</table>

### CHANGES IN INTERNAL EXPERIENCES OF WOMEN TECHNOLOGY STUDENTS SINCE THE OUTBREAK OF COVID-19

- Loneliness decrease by 6%
- Numbness, Fear, Disbelief increase by 10%
- Stress About Finances increase by 11%
- Anger or Irritability decrease by 10%
- Grief decrease by 13%
- Feelings of Connection increase by 42%
Health & Well-being
Women technologists report negative impacts on their health and well-being due to COVID-19, especially regarding their mental health.

Participants were asked how COVID-19 impacted the frequency of health and well-being experiences. Although many women technologists report increased negative experiences such as fear (67%), stress about personal finances (61%), and loneliness (57%), 44% have seen increases in self-care and 28% state an increase in self-esteem, as well as a balance in responses between increase (32%) and decrease (38%) in feelings of connection. Some respondents noted that the lack of commute and increased flexibility that come with remote work, as well as having fewer obligations outside of the home, have decreased their stress levels and allowed them more time to care for themselves and their families.

**Changes in Internal Experiences of Women Technologists Since the Outbreak of COVID-19**

- Numbness, Fear, Disbelief: 7% decrease, 8% increase
- Stress about Finances: 8% decrease, 62% increase
- Loneliness: 8% decrease, 47% increase
- Concerns about Job Loss: 8% decrease, 48% increase
- Anger or Irritability: 9% decrease, 48% increase
- Grief: 8% decrease, 46% increase
- Self-criticism: 10% increase
- Feeling of Connection: 38% decrease, 32% increase
- Self-Esteem: 18% increase, 28% decrease

**Changes in External Experiences of Women Technologists Since the Outbreak of COVID-19**

- Eating Patterns: 19% decrease, 48% increase
- Sleep: 28% decrease, 40% increase
- Exercise: 40% decrease, 30% increase
- Use of Alcohol: 14% decrease, 27% increase
- Use of Tobacco: 40% decrease, 10% increase
- Incidents of Racial/Ethnic Discrimination: 8% decrease, 51% increase
- Use of Drugs: 8% decrease, 51% increase

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Incidents of Intimate Partner Violence

In order to understand the full extent of the impact of COVID-19, we asked respondents to indicate the impact COVID-19 has had on incidents of intimate partner violence. Historically, intimate partner violence increases during emergencies and economic downturns, and recent research has shown an increase in incidents of intimate partner violence related to COVID-19.4, 5

If you have concerns about what’s happening in your relationship, call or chat the National Domestic Violence Hotline today if you are in the U.S. It is free and confidential. CALL 1-800-799-SAFE (7233) | TTY 1-800-787-3224 | CHAT THEHOTLINE.ORG.

For global resources, refer to the Violence Against Women – International website.

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Changes in Experiences with Intimate Partner Violence Since COVID-19

<table>
<thead>
<tr>
<th>Experience</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>54%</td>
</tr>
<tr>
<td>Increased</td>
<td>19%</td>
</tr>
<tr>
<td>No Charge</td>
<td>23%</td>
</tr>
<tr>
<td>Decreased</td>
<td>4%</td>
</tr>
</tbody>
</table>

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Action Items

- Ensure that employees understand all mental health services & support available to them
- Communicate your awareness that COVID-19 places additional stressors that impact their work performance
- Utilize ERGs to provide additional optional social connections for employees
- Encourage managers and teams to be in regular contact and set aside optional social time for employees to share their personal experiences as they cope with COVID-19

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Public Response & Support
On average, women technologists are more satisfied with the responses of their city and state/region over their nation. On a scale of 1 to 10, with 10 being very satisfied, women technologists report the following levels of satisfaction:

- **7.7** - Local K-12 Schools
- **7.4** - City
- **7.4** - State or Region
- **5.7** - Nation

Women technologists report that mortgage/rent suspension, direct cash assistance, and paid sick leave are the proposed government efforts that would have the biggest impact on their lives during the COVID-19 pandemic.

**Action Items**

- Provide flexibility and wide eligibility for mortgage and rent forbearance programs
- Expand eligibility for paid sick leave and family leave to ensure all essential & non-essential workers have access
- Expand paid family leave to individuals providing care to family members impacted by COVID-19
- Ensure broadband accessibility by expanding funding and eligibility in pre-existing public programs and incentivizing internet service providers to provide broad, affordable connectivity
AnitaB.org developed a global web-based survey tool administered through Qualtrics. Data was collected using this tool through three paid platforms: Amazon Mechanical Turk, Prolific, and Qualtrics Panels. Additionally, AnitaB.org publicized the survey to its database of global women technologists and through social media. The survey was open to all adults over the age of 18. The paid panels were used to target women technologists in the United States and India, as well as student technologists in both countries.

**Methodology**

**Description of Sample**

The survey received a total of 2,620 global responses, with the majority of responses coming from the USA (89%) and India (7%). 80% of the respondents identified as women, and 78% identified as technologists per the AnitaB.org definition:

A technologist is someone who works in or is in training to work in the following areas:

- Computing and information technology, all occupations that require deep technical specialization and knowledge, as well as managers, directors, and executives who oversee technical employees and the development and delivery of technical products.
- The racial ethnic breakdown of respondents was white (55%), Asian (19%), African American (16%), Hispanic/Latinx (9%), Native American/Alaska Native/First Nations (2%), Pacific Islander/Native Hawaiian (1%), and Middle Eastern/North African (<1%).
- The LGBTQIA+ community made up 28% of respondents, and 16% identified as allies of this community.
- The majority of responses came from individuals employed in for profit companies (55%) and students (15%), with the remainder reporting: non profit or government agencies (10%), self-employed (9%), educators (6%), and not working (5%).

**Ages of respondents were as follows:**

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>6%</td>
</tr>
<tr>
<td>21-24</td>
<td>16%</td>
</tr>
<tr>
<td>25-34</td>
<td>41%</td>
</tr>
<tr>
<td>35-44</td>
<td>20%</td>
</tr>
<tr>
<td>45-54</td>
<td>10%</td>
</tr>
<tr>
<td>55-64</td>
<td>6%</td>
</tr>
<tr>
<td>65+</td>
<td>1%</td>
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</tbody>
</table>

**About AnitaB.org**

At AnitaB.org, we envision a future where the people who imagine and build technology mirror the people and societies for whom they build it. We connect, inspire, and guide women in computing, and organizations that view technology innovation as a strategic imperative.

Our social enterprise supports women in technical fields, as well as the organizations that employ them and the academic institutions training the next generation. A full roster of programs helps women grow, learn, and develop their highest potential.

www.AnitaB.org

**Contributors in Alphabetical Order**

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