



2024 UTAH FEMALE STUDENTS AND STEM REPORT

# Breaking the glass ceiling in Utah

Increase female students' participation in STEM careers by supporting earlier interventions in K-12 education.



# Women in Utah are underrepresented in STEM careers

Utah is well known for its national parks and for having the greatest snow on Earth, but thanks to tremendous population growth in recent years and a burgeoning technology community known as Silicon Slopes, it has become an economic powerhouse as well.

STEM-related career opportunities within the Beehive State have recently helped land accolades such as Best Economic Outlook and Best State in the Country<sup>1</sup> for the second consecutive year. Utah is in the top 10 for tech job growth and its capital city, Salt Lake City, is ranked as the second-best city in the country for professional opportunities in STEM.<sup>2</sup>

Despite Utah's success as a leader in STEM careers, women's participation in these careers lags behind the national rate by 6 percent as of 2021.<sup>2</sup>

Furthermore, only 3.4% of employed women in Utah work in STEM as opposed to 10.5% of employed men.<sup>3</sup> This contributes to Salt Lake City ranking 43rd among other cities for "STEM-Friendliness,"<sup>4</sup> which takes into account gender disparity in STEM field careers and degrees.

This gap in STEM participation is not unique to Utah. Nationwide, women are underrepresented in STEM careers, accounting for just 28% of the STEM workforce<sup>5</sup> despite a total workforce participation rate of 57.4% as of July 2023.<sup>6</sup>

Analysis from the American Association of University Women revealed three likely causes for underrepresentation of women in STEM:

1. The belief that men are superior at math and naturally more gifted in STEM fields
2. Lack of interest from female students in STEM
3. Bias and work-life balance concerns in the STEM workplace

There is a significant advantage to encouraging more females to consider and explore STEM careers. These careers are in demand, pay more, and are shown to be more stable to disruption. Perhaps most important, female students show great aptitude for STEM careers, meaning they have a significant personal advantage that will ultimately help them find success.





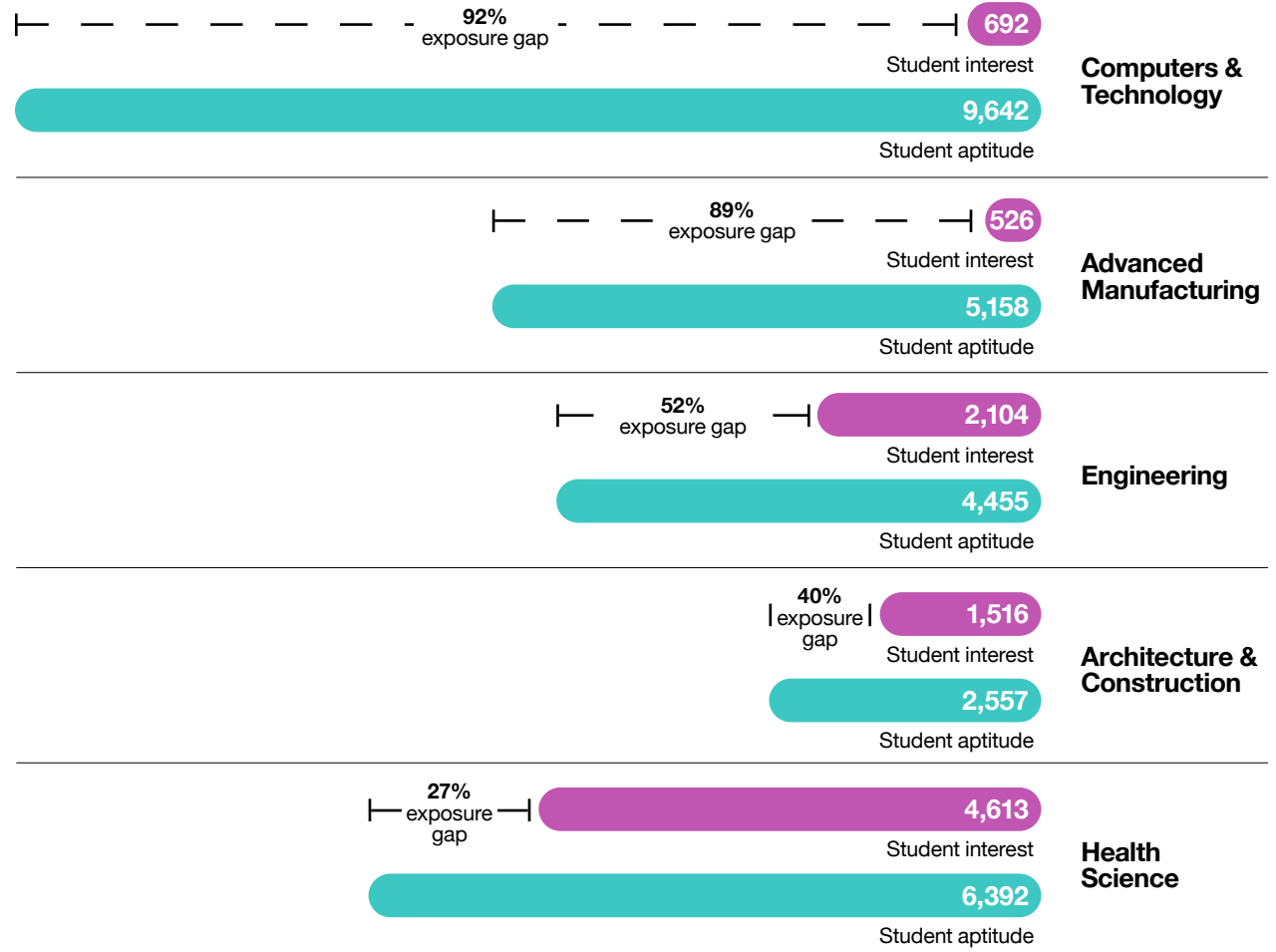
# Female students in Utah have the aptitude for STEM careers

Anonymized data from 21,606 female middle and high school students in Utah, from the 2022-23 academic year, shows a significant career exposure gap in STEM-related careers.

The data shows that these students have the aptitude for STEM-related careers but report low levels of interest likely due, in part, to lack of exposure to these careers.

**The exposure gap is the difference between measured aptitude and self-reported interest for a given career cluster**

## Aptitudes vs interests: The career exposure gap for female students in Utah





# How does Utah compare nationally?

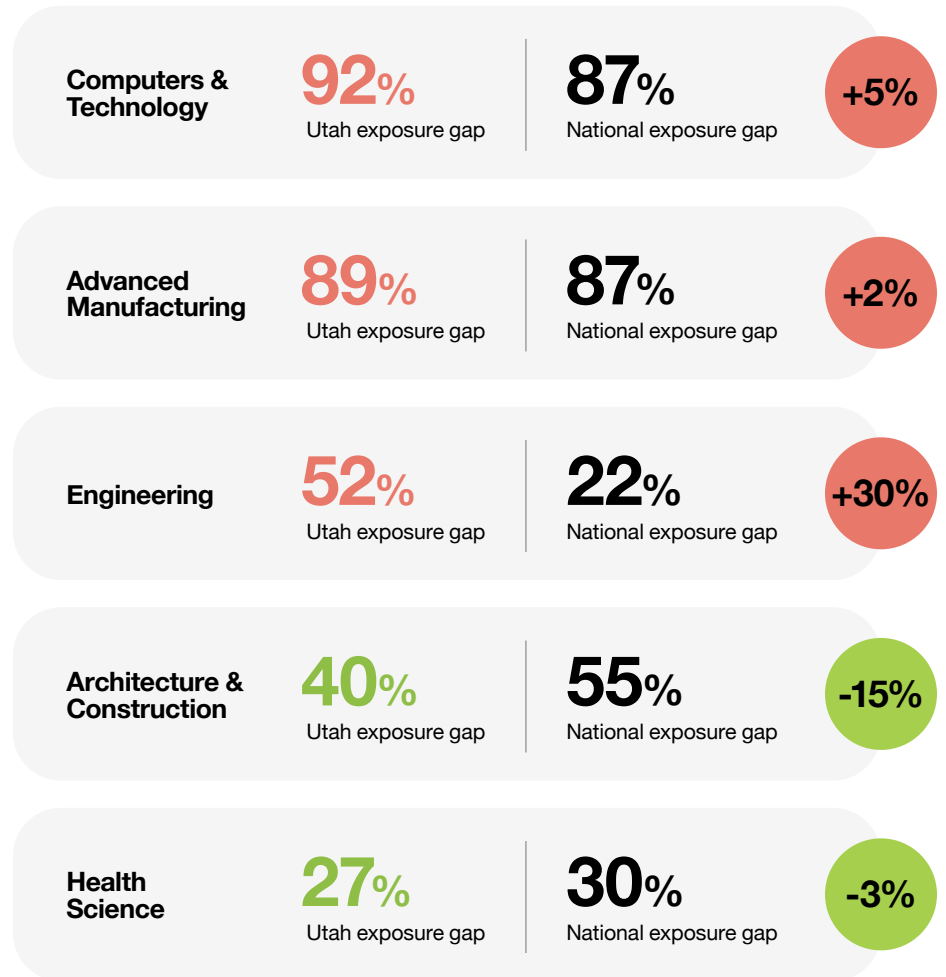
**When comparing career exposure gaps how do female students in Utah compare to female students across the country?**

In addition to this report, we published the [2024 Female Students and STEM Report](#). That report examines anonymized data from 233,000 female middle and high school students from across the United States collected in 2023.

Female students in Utah experience higher career exposure gaps in Computers & Technology, Advanced Manufacturing, and Engineering than female students nationally. The largest difference is the exposure gap for Engineering careers with a 30% larger gap for female students in Utah (52%) than female students across the country (22%). Computers & Technology and Advanced Manufacturing have 5% and 2% larger exposure gaps respectively.

There is progress being made. Female students in Utah have lower exposure gaps to careers in both Architecture & Construction and Health Science. [With a strong healthcare economy](#)<sup>7</sup> and [an invigorated construction sector](#)<sup>8</sup> in Utah, it's understandable the exposure gap is smaller for these career clusters. However, there is more work to be done to prepare female students for in-demand, high-paying STEM jobs of the future.

## Career exposure gap: Utah vs national data





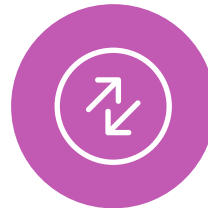
# Connect education to industry

The lack of women in STEM careers starts in middle and high school. Many students don't know they have the aptitude for STEM careers nor what educational and career opportunities are available to them. Specifically, interventions must happen much earlier in primary and secondary education to debunk misperceptions, encourage earlier exploration, and overcome barriers that unfairly hold many back.

YouScience and SheTech by Women Tech Council recommend the following practical solutions to overcome this challenge:



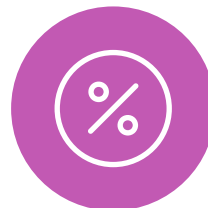
**Adopt aptitude measures** as the foundational tool to help students discover their best fit postsecondary education and career pathways. This is one of the most critical steps to close the exposure gap for students and increase their spectrum of career exposure.



**Enable more career-connected learning** to help students connect classroom learning to the real world. Programmatic approaches should be implemented on both the state and local level.



**Foster work-based learning experiences**, internships, and apprenticeships connect students with business and industry partners to gain real-world experiences while they are in school.



**Fund practical solutions that deliver results** like YouScience and SheTech for the students of Utah. It's absolutely vital that these programs and tools continue to be provided to ensure future growth in STEM and other in-demand industries. See how educators explain [the importance of students having access to YouScience.](#)<sup>9</sup>



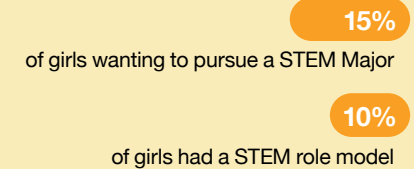
# Access, opportunity, and inspiration

SheTech is an industry-led STEM program created by the Women Tech Council and funded by the state of Utah. The program helps underrepresented girls in Utah pursue STEM education and careers. Every year, 3,000 students participate in the SheTech program, which includes:

- **SheTech Summit:** Largest industry-led, hands-on STEM activation day for high school girls
- **SheTech Internship:** Summer internship with technology companies
- **Tech Entrepreneur Apprenticeship Program:** Summer apprenticeship teaching tech entrepreneurship skills
- **SheTech Tech Events:** Monthly activities and events with the tech community and mentors
- **Women Tech Council Mentoring:** Women in tech mentor sessions for high school girls
- **SheTech Clubs:** Statewide high school clubs focused on STEM activities and technology career pathways

Before SheTech was implemented, 90% of high school girls didn't know a woman in STEM, and 90% didn't have a role model in STEM. Only 15% wanted to pursue an education in a STEM-related field. With the SheTech program, 100% of girls meet a role model and interact with a female in technology. That representation has led to 95% of SheTech interns declaring STEM majors as they enter college.

## Before SheTech Program



## After SheTech Program





# About the authors



YouScience® is the essential academic and career advising platform designed to help students find success in school and life. It's an aptitude-based guidance platform that leverages data and artificial intelligence to help individuals identify their aptitudes, validate their skills, and get matched with educational and career pathways. YouScience is the preferred choice of individuals, parents, educators, and counselors to guide and support educational and career pathways. It currently serves more than 9,200 educational institutions, 5,000 employers, and 2.2 million unique customers.

To learn more about Brightpath, visit [www.youscience.com/brightpath](http://www.youscience.com/brightpath).



Women Tech Council is a national non-profit organization committed to amplifying the economic impact of women in technology. Through impactful programs that strengthen the talent pipeline from high school to the boardroom, Women Tech Council provides mentoring, visibility, opportunities, and networking to both women and men in technology, with the ambitious goal of achieving a 50/50 gender balance in the tech industry. Our initiatives foster inclusive, high-performance business environments, propelling women into technology careers and expanding the talent pipeline.

To learn more about She Tech and the Women Tech Council, visit: [www.shetechexplorer.com](http://www.shetechexplorer.com)



<sup>1</sup> <https://senate.utah.gov/utah-ranked-state-with-best-economic-outlook-for-17th-consecutive-year>

<sup>2</sup> <https://www.usu.edu/uwlp/blog/2022/utah-women-and-stem-a-2022-update>

<sup>3</sup> <https://www.upr.org/2022-06-01/utah-stem-workforce-grows-yet-women-in-stem-still-lag-behind-men>

<sup>4</sup> <https://www.usu.edu/uwlp/blog/2022/utah-women-and-stem-a-2022-update>

<sup>5</sup> <https://www.forbes.com/sites/taliamilgromelcott/2023/10/11/workplaces-do-it-so-can-schools-real-world-relevance-keeps-girls-in-stem/?sh=6228c3241127>

<sup>6</sup> <https://www.forbes.com/sites/magnit/2023/08/31/female-participation-in-the-workforce-is-lagging-opportunities-in-your-contingent-workforce-can-be-a-solution>

<sup>7</sup> <https://www.sltrib.com/news/business/2023/11/10/health-care-innovation-technology/>

<sup>8</sup> <https://www.sltrib.com/news/business/2023/11/10/health-care-innovation-technology/>

<sup>9</sup> <https://youtu.be/QhKWMA11FeY>