

GIRLS INC., from page 4

“It’s not only a recruitment problem; it’s a pipeline problem,” said Jennifer “Yenni” Cazares.

“Girls are receiving messages that are so traumatizing that by fourth grade, they understand that math and science are not for them,” she said.

A study by the National Center for Education Statistics found 66 percent of fourth-grade girls and 68 percent of fourth grade boys said they liked science. But shortly thereafter, more girls than boys begin to turn away from STEM, reports the National Science Foundation. It also notes that by second grade, when asked to draw a scientist, most boys and girls draw a white male in a lab coat.

When Cazares spoke with Street Roots in early November, she was working at a nonprofit that’s been sparking curiosity about STEM in Portland-area girls for more than a decade. Girls Inc. of the Pacific Northwest runs an after-school empowerment program where elementary school girls attend workshops to build life skills and get interactive STEM experience.

Cazares decided to put her energy into diversifying STEM industries after her isolating experience as the only female and only minority student accepted into a renewable energy engineering program at Oregon Institute of Technology.

“I marked all the right boxes for their diversity needs,” she said.

Elizabeth Nye, director of Girls Inc. of the Pacific Northwest, said she was “one of those girls who at an early age was dissuaded from pursuing STEM indefinitely.”

Nye said she worked for years to establish national Girls Inc.’s most comprehensive program, called Eureka!, locally. Now in its third year in Portland and second in Woodburn, she hopes to expand it.

Eureka! is a five-year commitment aimed at fixing the pipeline problem by engaging girls at a young age and keeping them interested in STEM through high school.

Each Girls Inc. affiliate runs Eureka! a little differently, and one thing Girls Inc. of the Pacific Northwest is doing a little differently, Nye said, is making sure it’s 100 percent free to all participants.

“Based on what we know about the girls we serve, that’s too much of a barrier,” she said. The after-school girls groups, which Girls Inc. often recruits from for the Eureka! program, are primarily at elementary schools that have a high percentage of students on the free and reduced-price lunch program, she said.

For Nye, the wage gap between men and women is her personal motivation for promoting the work of Girls Inc. She said the high-paying jobs of the future are mostly in STEM, and the wage gap between men and women in those fields is actually smaller than the overall wage gap.

“I feel a very strong connection to ensuring our girls get access to those positions,” she said.

While the wage gap between men and women in non-STEM jobs is 21 percent, women make 14 percent less than men in STEM jobs, according to data compiled by Girls Inc.

Most STEM jobs pay well above the average for all occupations in the region, which is \$51,000 per year, said Vander Vliet,



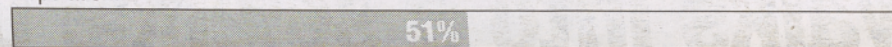
Participants in ChickTech: High School at Portland State University learn how to operate a video camera and mic before interviewing other groups of students. At the end of the final night, they live-streamed an interview with ChickTech co-lead Janelle Coburn.

PHOTO BY WOJTEK RAJSKI

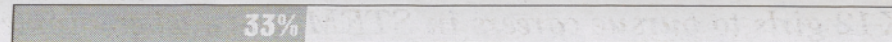
IN PORTLAND

Female Male

Population:

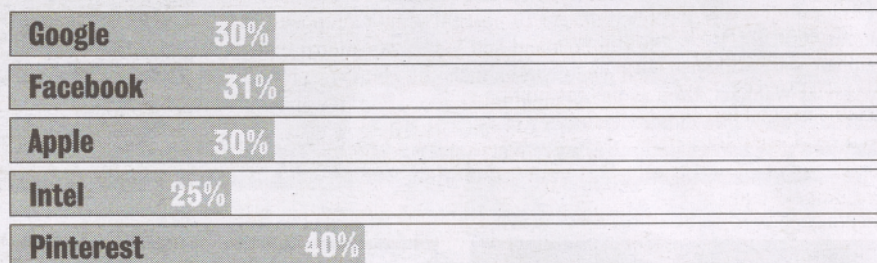


Tech workers:



SOURCES: PORTLAND DEVELOPMENT COMMISSION, OREGON EMPLOYMENT DEPARTMENT.

JOB'S HELD BY WOMEN AT TECH COMPANIES



SOURCE: NEXT GENERATION RECRUITMENT

of the Oregon Employment Department.

Locally, computer and mathematical occupations pay an average of \$81,000 annually, architecture and engineering an average of \$80,000, and life and physical science an average of \$67,000, she said.

Girls begin Eureka! prior to eighth grade with a summer camp focused on STEM skill building, with activities such as Lego robotics and prosthetic building and exposure to prominent women working in STEM fields. Throughout the school year, monthly workshops keep the girls engaged.

During the third through fifth years of Eureka!, girls participate in “externships,” which are similar to internships but with more emphasis on job shadowing than performing tasks, and they have the opportunity to take college classes.

Nationally, the program has proven successful. An impact study of 10 Eureka! programs showed that after the first year,

the majority of participants listed STEM or STEM-related careers for their future plans. After the second year, 89 percent said they planned to attend a four-year college and 68 percent agreed or agreed strongly that they could handle harder math.

Street Roots attended a monthly workshop for Portland-area participants in December where eighth- and ninth-grade girls met with a panel of women who work in STEM, including a WebMD data cruncher, a chemist and a fish and wildlife biologist.

The majority of attendees Street Roots spoke with said their parents made them enroll in Eureka! But those same girls also said unanimously that they’re glad their parents signed them up and that they planned to stick with it through high school.

One of those girls is Taevalin Sok, 14, of Reynolds High School. She said she’s interested in pursuing a career in chemical

engineering.

Another is Amaya Gustave, a ninth-grader at Franklin High School. She said she didn’t really like math and science and would have never considered a career in STEM before her parents enrolled her in Eureka! But now, she said, she’s discovered she likes science and is considering STEM because there are a lot more options in those fields than she was aware of before.

For girls who already had an affinity for left-brained activities, the program is keeping those passions alive.

Eboni Holmes, an eighth-grader at Floyd Light Middle School, is an avid fiction reader who wants a career in science, and she especially enjoys the Friday field trips during summer camp.

“It’s really nice,” she said. “We get to see different scenery, and sometimes we get to walk a lot. It’s really good memories.”

The summer day camps are held at area community colleges, and the girls meet inside the colleges’ science classrooms and labs. Activities range from engineering and chemistry to computer science and biology.

In Woodburn, students wrote the coding for a video game based on the Disney movie “Frozen.” In Portland, the girls built habitats for bats while learning how bats contribute to the ecosystem.

But because the camps are held at colleges that are close to schools Girls Inc. recruits from, Nye said, one of the biggest challenges in retaining the girls is gentrification and its byproduct – displacement.

When the girls in Eureka! graduate from high school, Nye said, Girls Inc. will help them apply for college scholarships. This was a major draw for Rosa Barajas, who enrolled her 14-year-old daughter in the program.

“This is what I needed when I was younger,” she said. As a first-generation American, she said her parents were not able to help her in this way.