LEVELING THE PATHWAY FOR WOMEN IN INFRASTRUCTURE SECTORS

Leveling the pathway for women in infrastructure sectors requires changes at all levels of engagement—in national policies, within the educational system, at the sector and industry levels, and within workplaces. Multisector efforts and cooperation are therefore needed in order to spotlight the structural and systemic constraints that are embedded both within the sector and in society overall, and that are steering women away from STEM and related technical fields.

START WITH EDUCATION

Removing gender biases in learning materials, and strengthening STEM curricula are critically important in attracting more women to STEM careers, particularly at the primary and secondary levels of education. Curriculum designers should create content and resources that are suited to the learning styles and preferences of girls as well as boys: for example, the research suggests that STEM curricula are more appealing to girls when they are clearly relevant to real-world situations.

Building interest and confidence in STEM subjects among young girls is also of key importance. Interactive, hands-on experiences, design-based learning, and extracurricular STEM activities specifically for girls offer promise. Schools and infrastructure organizations can work together to expose younger girls to science, and capture their attention in diverse and creative ways. For example, the German utility E.ON engages children and youth from ages 5 to 18 in STEM-oriented thinking through its Energise Anything! Program, which offers inspiring interactive workshops. Such programs can also provide an opportunity for students to interact with female role models. Female role models are especially salient in STEM, helping to build the aspirations and self-efficacy of young girls. For example, in New Zealand, the Ultimit Women in Infrastructure Network runs an annual Girls With Hi-Vis program to expose girls to women who are excelling in nontraditional roles.

As young women start to think about their career choices, it is important to also address common misperceptions among girls about their abilities for STEM employment, and provide them with information about STEM career paths. For example, WomEng, a nonprofit organization in South Africa, has developed booklets with information about engineering programs and scholarship
opportunities, and answers to frequently asked questions about careers in engineering, aimed at secondary school girls. Informing young women about salaries for STEM jobs in infrastructure can also help influence their career choices.

In tertiary education and technical schools, institutions can change their traditional practices in order to create more equitable outcomes. For example, they might make introductory STEM classes more accessible and engaging for women by emphasizing the broad utility of engineering skills and knowledge; and by incorporating hands-on practical learning into the curriculum by having young women work at a building site.

Public and private sector entities can be more proactive in engaging potential STEM talent by providing scholarships, internships, and apprenticeships. In the Lao People’s Democratic Republic (Lao PDR), an Asian Development Bank (ADB) project with the provincial water utilities is providing scholarships for young women to study water-related STEM careers, and providing them with job opportunities when they graduate. And in Tanzania, the Structured Engineers Apprenticeship Program (SEAP) has supported 300 women in engineering apprenticeships by covering their living expenses and providing them with training and mentorship opportunities.

These connections can also facilitate young women’s access to information, and career opportunities through job matching and placement programs. In the Republic of North Macedonia, Energieversorgung Niederösterreich (EVN) provides a range of opportunities, including internships and engineering scholarships, to help young women gain professional experience, and eventually to join the company.

REMOVE ROADBLOCKS TO RECRUITMENT

During the recruitment process, eliminating legal barriers that may be preventing women from working in specific sectors and occupations can help advance women’s employment. In recent years, Bulgaria, Bosnia and Herzegovina, Kiribati, and Tajikistan have all moved to reform their labor laws in order to eliminate some of the restrictions on women’s employment: for example, in jobs deemed arduous or hazardous, such as underwater work.

Inclusive policies such as quotas and targets can also be effective, and can help to change the numbers quickly. When hiring, ensuring that merit as well as inclusion goals are considered in tandem can help to avoid backlash, stigmatization and tokenism. Steps taken to counter gender discrimination and bias during the hiring process are also helpful. For example, decision aids such as technical and cognitive tests, as well as structured interviews during which every candidate is asked the same questions in the same order, can help to stem implicit biases.

DESIGN POLICIES AND WORKPLACES THAT ENCOURAGE RETENTION

Globally, women remain the primary caregivers in the home: therefore, flexible work and part-time employment options may help to reduce attrition, and increase the number of women who enter and remain in the workforce over the long term. However, although such arrangements may help to retain women in the workforce, those who take advantage of them may also be overlooked for promotion, a situation that calls for increased attention.

Because of the nature of the work, practices that seek to address issues of work-life balance may be limited for infrastructure professionals. For example, telecommuting options and mobile work may be difficult if not impossible for employees engaged in construction work or utilities. However, even when organizations
cannot offer such options, they can offer a variety of other flexible working arrangements, such as staggered working hours, compressed work schedules, or breaks to allow for extended learning and training.

Paid family leave and childcare solutions further support the retention of women, and have demonstrated positive benefits for businesses. In Brazil, childcare provided by the public sector increased maternal employment by 10 percentage points. And in rural Mozambique, the availability of preschool enabled caregivers (primarily women) to save 15 hours per week on their care responsibilities.

Addressing sexual harassment in the workplace by developing complaint and redress mechanisms, antiharassment and nondiscrimination policies, and sanctions for those who breach them, is of critical importance. The Solomon Islands Water Authority (SIWA) provides one good-practice example. With guidance from IFC, this utility has developed policies to prevent and counteract bullying and sexual harassment in the workplace, as well as to address cases of domestic violence among their employees. These policies also ensure that employees are provided with helpful information, and referrals to community support services.

Simple measures like providing appropriate facilities for women can foster a more inclusive work environment. Infrastructure organizations should consider women’s preferences and needs when designing work and living spaces for women in the field: this includes ensuring that there is adequate lighting, separate toilets, uniforms that are appropriate for women, and on-site health facilities.

Infrastructure entities can work with trade unions to develop gender equality strategies, and to enhance the participation of women in STEM, including in leadership roles. Électricité de France (EDF) and ENGIE have established collective agreements on gender-equality targeting by balancing the number of women and men in management and technical positions; enhancing women’s empowerment and agency; combating stereotypes and sexism in the workplace; and highlighting gender-equality achievements.

**SUPPORT WOMEN AS THEY CLIMB THE LADDER**

Mentoring and sponsorship programs are promising professional development strategies for women in STEM, and they can be supported at the workplace level as well as across industries. A variety of infrastructure mentoring programs are focused on empowering and promoting women. Male mentors could also play an important role in women’s career advancement. Women in male-dominated industries such as engineering can benefit from having a senior male mentor: those who have had such mentors report a higher level of satisfaction with the progression of their careers, and were more likely to be partners or senior executives than male employees with senior male mentors.

Sponsorship—which involves the active support of someone who has considerable influence on decision-making processes or structures—is even more effective than mentoring. Research by the Center for Talent Innovation found that men and women with sponsors are more likely to ask for pay raises (and get them), as well as more likely to request to join high-visibility teams, and to experience greater career satisfaction.

Another key strategy is facilitating access to professional networks: here, sector-specific, international networks can help guide women in STEM, as well as infrastructure entities that are seeking to retain, support, and advance women’s careers. Despite the increasing use of women’s networks within organizations and companies, there has been relatively little research to examine their potential impact on women’s career advancement, and the available research is mixed.