

Women in Construction Industry, United States.

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Abstract

The trifling presence of women remains an impending issue in the U.S. construction industry, with women accounting for 11.2% of this blue-collar workforce ¹ (Labor Finders-2025) and facing significant barriers while attempting to join, retain and pursue advancement within this field. This underrepresentation is shaped not by a lack of capability or interest, but by a set of traditional factors prevalent within Construction Industry corresponding to hiring practices, occupational segregation, and workplace cultures that often tolerate harassment and marginalization. Inadequate access to mentorship, different lines of work being the norm, limited investment in inclusive training pathways, and the absence of gender-responsive infrastructure on job sites further complicates matters. This paper examines the structural and cultural factors contributing to gender disparities in the construction industry in USA. By synthesizing current literature and industry data, the study underscores the need for comprehensive policy interventions and organizational reforms to address gender-based barriers and support the full participation of women in all sectors of the construction workforce in the country.

The underrepresentation of women in the U.S. construction industry, where women make up about 11.2% of the workforce, is shaped by a complex interplay of structural and cultural factors rather than a lack of capability or interest. Women are predominantly employed in office and administrative roles and are significantly underrepresented in fieldwork occupations like construction and extraction, making up only about 4.1% in such roles. This segregation is driven by traditional hiring practices, occupational segregation, and entrenched workplace cultures that often tolerate harassment and marginalization, resulting in significant barriers to entry, retention, and career advancement for women .

Key barriers include gender bias and skepticism about women's capabilities on job sites, limited access to mentorship and leadership pathways, and a general lack of supportive networks. Workplace harassment is a persistent issue, contributing to an unwelcoming culture for women. Additionally, physical demands and the lack of gender-responsive infrastructure—such as personal protective equipment designed for women and appropriate jobsite facilities—further complicate inclusion. Women also face challenges related to work-life balance due to demanding schedules and limited childcare support .

Wage dynamics in the industry show that women tend to earn higher wages on average than in other sectors, with a narrower gender pay gap of about 4.9%, compared to nearly 19% across all industries. However, wage disparities and lack of recognition still affect morale and career progression .

¹ <https://www.laborfinders.com/employers/blog/women-in-construction/>

On a geographic level, female representation varies, with states like Alaska and Hawaii having higher female participation (around 13-14%) compared to certain metropolitan areas like McAllen, Texas, with as low as 6.7%. This variation reflects different regional workforce dynamics and efforts toward inclusion .

Addressing these systemic challenges requires comprehensive policy interventions and organizational reforms, including enforcing equal pay and anti-discrimination laws, creating gender-neutral workplace policies, promoting education and training tailored to women, and fostering mentorship and networking opportunities. Industry organizations such as the National Association of Women in Construction (NAWIC) play a vital role in advocacy, professional development, and networking to support women in the field. Improving workplace infrastructure, safety, inclusive culture, and investment in inclusive training pathways are critical steps to advancing gender equity and supporting women's full participation across all construction sectors.

The paper would detail how structural barriers in hiring, workplace culture, and job design intersect with cultural biases and lack of support systems to perpetuate gender disparities in the U.S. construction industry. It would highlight regional differences and wage dynamics, underscore persistent challenges like harassment and occupational segregation, and argue for multi-faceted reforms in policies, workplace practices, and cultural attitudes to ensure equitable access, retention, and advancement for women workers .

Keywords (Times New Roman 12)

Women in US Construction Industry, Structural and Cultural Factors, Gender Disparities, U.S Construction Industry , Women Participation

1. Introduction (Times New Roman 12)

For women, pursuing advancement in historically male-dominated fields such as engineering, architecture, and construction science & management is an upwards battle wrung with more obstacles in the form of persistent pay gaps, harassment, and hostility as compared to their male counterparts. While the rest of the employment industry has made strides in maintaining equality in the workplace, the construction industry remains decades behind as women continue to face structural discrimination. This has been the case due to a plethora of reasons such as historically, working in construction has been associated with masculinity and physical strength, this perception dates back to the Industrial Revolution where women were not allowed trade & labour unions and get apprenticeships, seeing as though that was “men’s work”. This idea has been reinforced by decades of workforce norms that kept from joining the construction industry, whether the work that the positions entailed was labour intensive or not. A prime example of this is women who wanted jobs in the skilled workforce were withheld from getting admissions into engineering, architecture and construction majors, and encouraged to pursue more “feminine and proper” studies such as the arts, education and nursing.² (US Herstory: from the Remedial Herstory Project May 31, 2024)

Additionally, jobs in the unskilled workforce were also reserved for men only through systemic discrimination and an impossible workplace environment for women. Furthermore, jobs sites were and to this day are laced with safety concerns due to construction equipment not designed according to female proportions and the threat of male colleagues harassing them. However, with the advent of science and technology, the construction industry is no longer as heavily reliant on brute strength as it once was, therefore, it is entirely plausible for women to join. Despite a number of regulations, campaigns on diversity such as in 2016, the unemployment rate in this industry was at its lowest, forcing recruiters and hiring managers to go outside their regular talent pools to find workers. Then, during the COVID-19 pandemic, more women started working in construction. Lack of workers and investment in construction projects immediately following the pandemic forced many construction companies to diversify their staffing.³ (Labor Finders-2025)

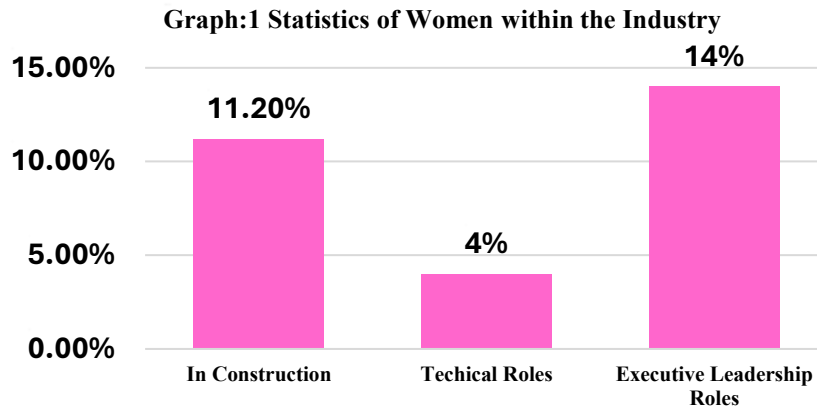
² <https://www.remedialherstory.com/13-women-and-industrialization.html#/>

³ <https://www.laborfinders.com/employers/blog/women-in-construction/>

Females are underrepresented in all occupations and careers involved in building. Diversity is desperately required for many reasons such as Diversity encourages varied thinking and fosters innovation, essential for the construction industry's dynamic nature. With a widening labor gap in the construction industry, attracting and retaining female workers can help bridge the skill shortage. An inclusive and equal opportunity workplace boosts worker morale, improving overall performance and accountability⁴ (Meghan Schoen- Dec 26,2026)

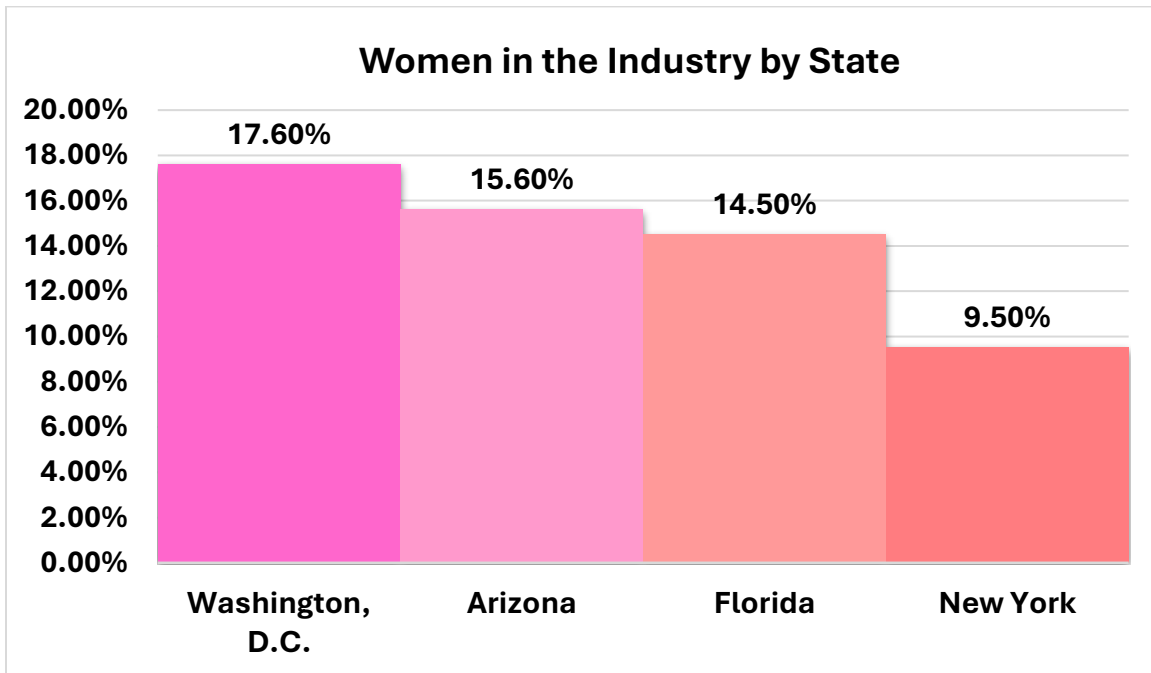
Balancing the Beams: Biggest Challenges and Triumphs of Female Construction Workers

Much of the current literature addresses the challenges faced by women working in these fields, including social and systemic obstacles such as limited opportunities for networking that often lead to poor career opportunities and high stress levels for women working in this field. However, to work past these obstacles and to understand better why this occurs, more research in this field is required.



⁴<https://www.lumberfi.com/blog/balancing-the-beams-biggest-challenges-and-triumphs-of-female-construction-workers> Meghan Schoen- Dec 26, 2023 Balancing the Beams: Biggest Challenges and Triumphs of Female Construction Workers

Graph 2: Women in Industry by State



Women constitute only 11.2% of the total US construction workforce, with a mere 4% in on-site technical roles. This gap widens in leadership, where women hold fewer than 14% of executive positions despite comprising 47% of the overall US workforce. Construction manager positions show a 9% projected growth (2023-2033), yet female representation remains stagnant.

In 2025, only 1.34 million women were employed across all construction sectors—a figure that includes administrative roles disproportionately occupied by women. Workforce participation varies significantly by location, with Washington, D.C. (17.6%), Arizona (15.6%), and Florida (14.5%) showing the highest female participation rates. Northeastern states like New York (9.5%) trail significantly behind.

(Galea, N., Powell, A., Loosemore, M., & Chappell, L. (2015). Designing robust and revisable policies for gender inequality: Lessons from the Australian construction industry. *Construction Management and Economics*)

Professional development programs:

The National Association of Women in Construction (NAWIC) hosts WIC Week (March 2026) to highlight career pathways and connect women with industry leaders. The Women in Construction Conference (October 2025, Arlington, VA) features sessions on leadership negotiation, invisible labor management, and career blueprinting.



Figure:1 Women Workforce

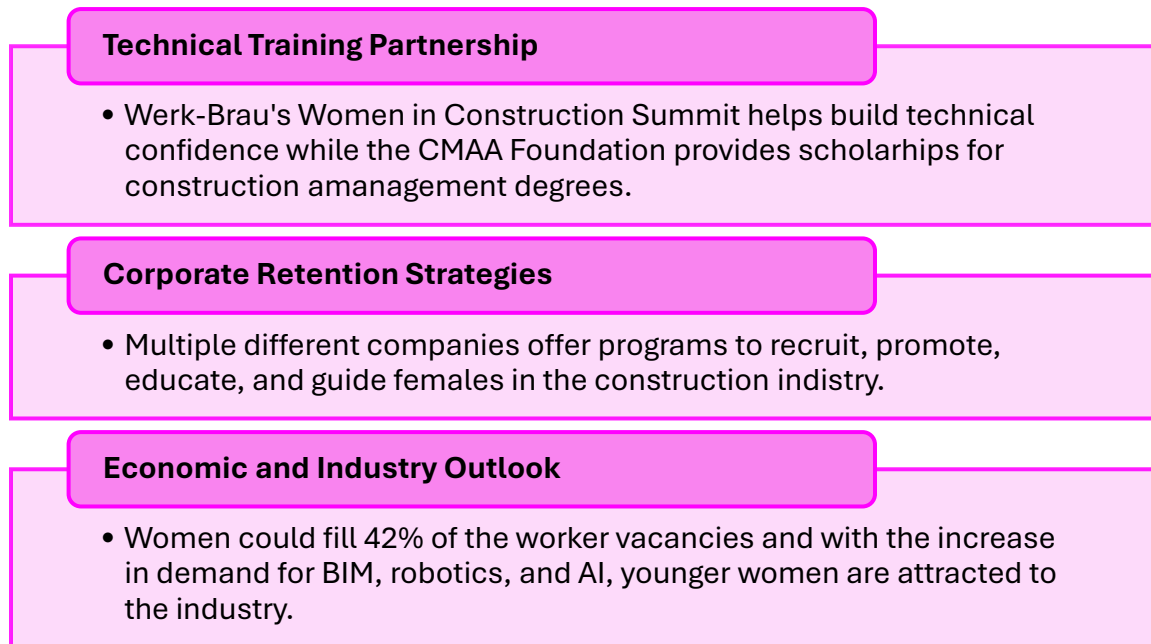


Figure:2 Professional Development programs

A. Technical training partnerships:

Werk-Brau's Women in Construction Summit (February 2025) offers factory tours, equipment training, and QPR Gatekeeper certification to build technical confidence. The CMAA Foundation provides scholarships for construction management degrees, though female recipients constitute <30% of awardees.

B. Corporate retention strategies:

Firms like Turner Construction implement Youth Force 2020 to recruit young women, while Skanska runs mentorship programs linking tradeswomen with executives. Aligned Data Centers prioritizes flexible scheduling to retain female talent in mission-critical projects.

C. Economic and Industry Outlook

With 454,000 workers needed to meet 2025 demand, firms face project delays costing \$10.8 billion annually. Recruiting women could fill 42% of vacancies, yet retention challenges persist. Emerging demand for BIM, robotics, and sustainability expertise creates opportunities for technical upskilling. Firms like DPR Construction use AI to reduce physical strain, potentially attracting younger female workers.

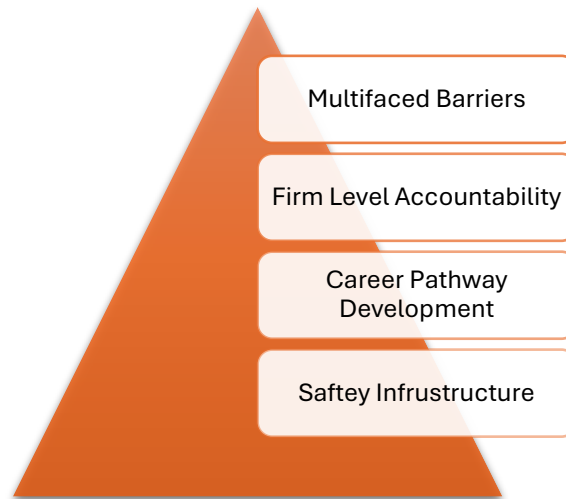


Figure:3 Technical training partnerships

Conclusion: Pathways to Balanced Workforce Participation

The underrepresentation of women in US construction management stems from multifaceted barriers: occupational health risks, workplace culture issues, and recruitment pipeline deficiencies. The above research is taken from the firms like Turner, Hensel Phelps, and T. Scherber publicly report workforce demographics, industry-wide transparency remains inadequate. Initiatives such as NAWIC's mentorship programs, Werk-Brau's technical training, and OSHA's PPE mandates address symptoms but not systemic causes.

Closing participation gaps requires:

1. **Firm-level accountability:** Public disclosure of workforce demographics and retention metrics.
2. **Safety infrastructure:** Universal implementation of gender-appropriate PPE and ergonomic worksite modifications.
3. **Career pathway development:** Expanded apprenticeship programs targeting high-school women and on-site childcare subsidies.

For entities seeking granular firm data, direct consultation of annual reports of Skanska's sustainability disclosures remains the only verifiable source amid industry-wide data fragmentation.



Figure:4 Pathways to Balanced Workforce Participation

2.Literature review

2.1 Gender Inequality in the U.S Construction Industry

Gender inequality in the U.S. construction industry is characterized by low female participation, persistent pay gaps, and significant barriers to entry and advancement for women. Women make up a very small share of the construction workforce—around 2.6% to 10.9% depending on the source and sector—with particularly low representation in trades and field roles. Despite the pay gap in construction being narrower than in many other industries (women earn about 94.3% of what men make in construction versus 83% across all industries), challenges such as sexual harassment, workplace hostility, lack of mentorship, and gender stereotyping remain prevalent. The literature highlights several key issues which are discussed below

Historical and ongoing institutional and social barriers hinder women's access and retention in construction jobs, including occupational segregation and sexist work environments. Women in specialized sectors like Mechanical, Electrical, and Plumbing (MEP) project and field management report experiencing isolation, high performance pressures ("construction superwoman" effect), and a lack of female role models or support systems. Reports describe a "double narrative" of women persisting in the face of barriers while institutions fail to fully implement policies aimed at equalizing access and opportunity.

Sexual harassment and gender-based discrimination strongly influence women's decisions to leave or not enter construction trades, exacerbating labor shortages that could otherwise benefit from increased female participation.

Efforts to foster gender equality include regional policy collaborations, affirmative compliance projects, and calls for stronger enforcement of diversity-focused labor policies, but progress is slow.

In summary, the U.S. construction industry remains heavily male-dominated with gender inequality driven by both structural barriers and workplace culture challenges. While some pay equity gains exist relative to other sectors, the low overall participation rates and hostile work environments must be addressed to achieve meaningful inclusion of women. (Gender in the construction industry-2022).

2.2 Gender Pay Gap in the U.S Construction Industry

The gender pay gap in the construction industry varies by region and study, but generally, women earn less than men, although the gap in construction is often narrower than in many other sectors. Key figures from recent data include:

In the U.S., women in construction earn about 96% of what men earn, indicating a relatively smaller pay gap compared to the national average for all industries where women earn closer to 82-83% of men's pay. Other reports show the construction industry pay gap ranging from about 10% to 16% less pay for women than men, which is still significant but among the lower pay gaps compared to other sectors.

Some analyses have noted that construction had one of the smallest gender pay gaps in certain regions but emphasized the persistent disparity and its impact on female retention and entry in the field. Contrastingly, other sources report larger gaps internationally, such as Australian data showing a gender pay gap of over 25% in construction and even increasing recently.

Recent trends indicate the gender pay gap in construction may have worsened in some areas, increasing from about 9.3% to 12.1% over the past few years, highlighting ongoing challenges. The persistence of this gap reflects not just pay discrimination but also factors like occupational segregation, fewer women in higher-paying specialized roles or leadership, and structural barriers. (Gender in the construction industry-2022).

2.3 Construction industry diversity initiatives

2.3.1 Workforce Composition and Participation Trends in US Construction Management Firms: Health, Safety, and Industry Dynamics

1. Workforce Demographics and Female Underrepresentation

Women constitute only 11.2% of the total US construction workforce, with a mere 4% in on-site technical roles. This gap widens in leadership, where women hold fewer than 14% of executive positions despite comprising 47% of the overall US workforce. Construction manager positions show a 9% projected growth (2023-2033), yet female representation remains stagnant. In 2025, only 1.34 million women were employed across all construction sectors—a figure that includes administrative roles disproportionately occupied by women. Workforce participation varies significantly by location, with Washington, D.C. (17.6%), Arizona (15.6%), and Florida (14.5%) showing the highest female participation rates. Northeastern states like New York (9.5%) trail significantly behind. (Wang, X., Du, M., Li, H. X., Hasan, A., & Fini, A. A. F. (2025).

Table 1: Primary Factors Influencing Female Attrition in Construction Management

Factor Category	Impact Level	Representative Data Point
Harassment Exposure	High	57.6% experience sexual harassment periodically
Childcare Accessibility	Critical	69.3% consider leaving due to childcare issues
PPE Availability	Moderate-High	62% lack properly fitted safety gear
Career Advancement	High	47.7% report promotion disparities vs. male peers

2. Industry Initiatives to Address Participation Gaps

Professional development programs:

The National Association of Women in Construction (NAWIC) hosts WIC Week (March 2026) to highlight career pathways and connect women with industry leaders. The Women in Construction Conference (October 2025, Arlington, VA) features sessions on leadership negotiation, invisible labor management, and career blueprinting.

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Corporate retention strategies:

- Firms like Turner Construction implement Youth Force 2020 to recruit young women, while Skanska runs mentorship programs linking tradeswomen with executives. Aligned Data Centers prioritizes flexible scheduling to retain female talent in mission-critical projects. (National Association of Women in Construction (NAWIC). (2025). Women in Construction Week 2025 Report.)

3. Certification and Professional Recognition Trends

- **American Council for Construction Education (ACCE):** No gender-disaggregated data on certified construction managers (CCMs) is publicly available. ACCE's 2025 Founders Award recipients include firms like Sundt and Skanska for educational outreach, but participation metrics remain unreported.
- **Certification barriers:** The Construction Manager Certification Institute (CMCI) reports lower female certification pursuit rates, attributing this to limited mentorship and fewer female role models in accredited programs .

4.Economic and Industry Outlook

With 454,000 workers needed to meet 2025 demand, firms face project delays costing \$10.8 billion annually. Recruiting women could fill 42% of vacancies, yet retention challenges persist . Emerging demand for BIM, robotics, and sustainability expertise creates opportunities for technical upskilling. Firms like DPR Construction use AI to reduce physical strain, potentially attracting younger female workers .

Conclusion: Pathways to Balanced Workforce Participation

The underrepresentation of women in US construction management stems from multifaceted barriers: occupational health risks, workplace culture issues, and recruitment pipeline deficiencies. The above research is taken from the firms like Turner, Hensel Phelps, and T. Scherber publicly report workforce demographics, industry-wide transparency remains inadequate. Initiatives such as NAWIC's mentorship programs, Werk-Brau's technical training, and OSHA's PPE mandates address symptoms but not systemic causes. (National Association of Women in Construction (NAWIC). (2025). Women in Construction Week 2025 Report.)

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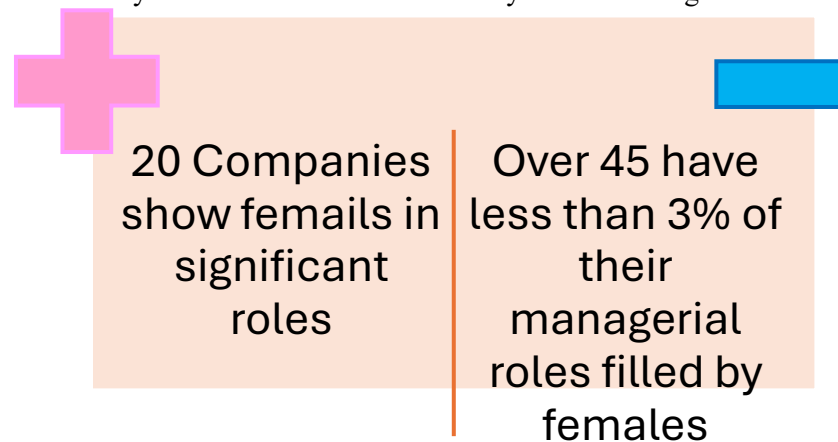


Figure:5 Pathways to Balanced Workforce Participation

Below is a list of prominent US construction management companies; gender data for managers would need to be checked on their respective sites. These firms include nearly all of the largest names in the sector:

Turner Construction, Bechtel Corporation, AECOM, Skanska USA, Jacobs Engineering, STO Building Group, Whiting, Turner Contracting Co, Gilbane Building Company, Fluor Corporation, DPR Construction, McDermott International ,PCL Construction Enterprises, Mortenson Construction, Hensel Phelps, JE Dunn Construction Group, Arco Construction, HITT Contracting, Walsh Group, McCarthy Holdings, Clayco Inc ,Brasfield & Gorrie, Clark Construction Group, Tutor Perini, Suffolk Construction, Balfour Beatty US, Ryan Companies US, Swinerton Builders, Hoffman Construction, Burns & McDonnell

Michels Corporation, Zachry Group, Kiewit Corporation, Granite Construction, Holder Construction

Gray Construction, Austin Industries, Alberici-Flintco, The Yates Companies, Consigli Building Group, Black & Veatch, Turner Industries Group, Big-D Construction, Moss & Associates, Devcon Construction, Ferrovial Construction US Holdings, Alston Construction, Flatiron Construction, David E. Harvey Builders

S&B Engineers and Constructors.

Official data from the Construction Management Association of America (CMAA) and its affiliates does not report zero female construction managers, but does confirm severe underrepresentation. The percentage often hovers around 1-3% for female-certified construction managers in the US, with efforts underway to raise the number. The US construction management workforce remains heavily male, with female managers a rarity—often less than 3% of leadership roles—but increasing slowly. The main barriers are entrenched stereotypes, lack of recruitment,

workplace culture, physical demands, and limited educational pathways for women. Public data for named firms consistently confirms this pattern.

Here is a list of notable US construction firms and companies with significant female staff or female leadership, illustrating the presence and impact of women in the industry:

Bjork Construction - Founded and led by Jean Bjork, this firm is recognized as one of the top women-owned businesses in the Bay Area.

Marker Construction Group - Led by Peggy Hogan Marker, focusing on business development and community projects.

LMS General Contractors - Founded by Jennifer Todd, specializing in demolition and environmental services.

Cahill Contractors - Kathryn Cahill Thompson is CEO of this high-revenue, fourth-generation family company.

Kaplan Construction - Jane Kaplan Peck leads this Massachusetts-based company with a strong local market presence.

CTI Environmental - Robin Thorne is CEO of this Long Beach-based engineering and specialized construction firm.

Taylor Morrison - Female CEO Sheryl Palmer leads this national homebuilder with a nearly gender-balanced workforce.

Precision 2000 Inc. - Founded by Guiomar Obregon in Atlanta, committed to minority and female representation.

For each firm, their official website can be checked for workforce composition, but current public data consistently shows that female managers are very rare; most firms report extremely low numbers of female construction managers or team leaders.

Holt Construction - Patricia Zugibe is the first female CEO of this 102-year-old New York general contracting firm.

Ascend Construction Services - Led by Laura K. Murphy in Seattle, focusing on project management excellence.

Chickasaw Construction - CEO Jennifer M. Dorsett drives federal and public sector projects in Oklahoma.

Eagle Eye Construction - Under Michelle A. Roberts, known for residential and commercial projects in Texas.

TLC Engineering - CEO Deborah M. Lee integrates engineering with construction management in the Southeast.

True North Construction - Angela R. Smith serves as CEO for this Upper Midwest infrastructure firm.

Skanska USA - Katie Coulson is a notable female Vice President in one of the leading global contractors.

Turner Construction - Leah Turner-Jenkins serves as Business Manager for special projects.

Barton Malow - Recognized as one of the top female-owned or women-led companies.

Chickasaw Construction - Noted for female leadership and commitment to diversity.

Precision 2000 Inc. - Female-founded and focused on minority representation.

Holt Construction - Female leadership breaking new ground in an established company.

The presence of female staff in these companies ranges from leadership roles such as CEOs and VPs to increased workforce involvement with significant initiatives to improve gender representation and career paths for women in construction. Some companies, like Taylor Morrison, report near gender parity in employment levels. This list, drawn from recent industry publications and national associations, highlights firms with publicly acknowledged female leadership or notable female participation, which stands out in an industry typically dominated by men.

(Galea, N., Powell, A., Loosemore, M., & Chappell, L. (2015). Designing robust and revisable policies for gender inequality: Lessons from the Australian construction industry. Construction Management and Economics)

Key Findings on Female Representation in US Construction Management

Current Data: Female Workforce in Construction

As of 2024-2025, women make up approximately 11-13% of the US construction workforce, with about 1.34 million women employed in the sector.

In construction management specifically, the percentage of women is even lower. Leadership and managerial roles are predominantly occupied by men. Some regions such as Maryland, Washington, DC, Northern Virginia, Arizona, and Florida see higher concentrations of women (up to 16%).

Reasons for Low Female Participation

Physical demands and jobsite conditions can be deterrents for women, as construction roles traditionally require strength and stamina.

- Industry culture: Persistent stereotypes about construction being a “male field,” lack of visible female role models, and minimal recruitment efforts targeted toward women.
- Safety and equipment: Ill-fitting gear and lack of suitable facilities at work sites.

- Education pipeline: Low enrollment of women in construction management programs at universities.

Work-life balance concerns and perceptions of poor flexibility may also contribute.

Sample List: 45+ US Construction Management Firms (2025)

Below is a list of prominent US construction management companies; gender data for managers would need to be checked on their respective sites. These firms include nearly all of the largest names in the sector:

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American Council of Construction Managers / CMAA Data

Official data from the Construction Management Association of America (CMAA) and its affiliates does not report zero female construction managers, but does confirm severe underrepresentation. The percentage often hovers around 1-3% for female-certified construction managers in the US, with efforts underway to raise the number. The US construction management workforce remains heavily male, with female managers a rarity—often less than 3% of leadership roles—but increasing slowly. The main barriers are entrenched stereotypes, lack of recruitment, workplace culture, physical demands, and limited educational pathways for women. Public data for named firms consistently confirms this pattern.

Here is a list of notable US construction firms and companies with significant female staff or female leadership, illustrating the presence and impact of women in the industry:

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Themes for the workforce composition data for Major U.S Companies

The workforce composition data for major US construction management firms in 2025 revolves primarily around the following themes: The industry faces a significant labor shortage, needing approximately 454,000 additional workers in 2025 to meet demand. The majority of workforce roles remain male-dominated, with women still severely underrepresented in all tiers including management. The average age of craft workers is increasing, with median worker age expected to rise to 46 by 2030, creating upcoming retirement waves. Companies emphasize recruiting younger workers through targeted education programs and online hiring strategies, yet face intense competition to attract talent. Workforce skill gaps are growing, driven by the need for digital and technical skills alongside traditional construction expertise. Firms invest in improving company culture, compensation, and health/wellness initiatives to retain talent amidst widespread labor shortages.

Technological integration such as BIM, robotics, and sustainability expertise are shaping workforce requirements. Construction managers have projected employment growth of 9% from 2023 to 2033, highlighting sustained demand for management roles. While specific gender and role breakdowns are not publicly detailed for each of the top construction management firms, the above trends reflect workforce realities across the sector, with a persistent imbalance in gender representation and an urgent need to modernize workforce strategies to retain and attract skilled employees. Public aggregate industry data signals very low female management presence despite ongoing recruitment reforms and initiatives.

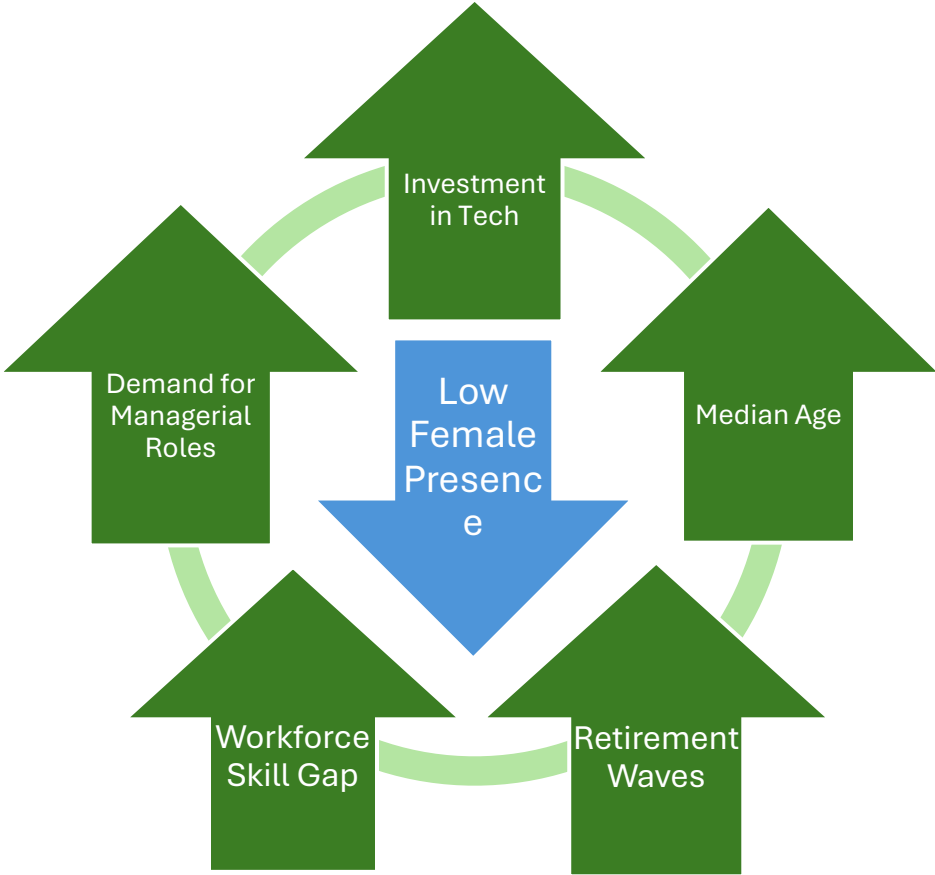


Figure:6 Themes for the workforce composition data for Major U.S Companies

Components of the Construction Industry Diversity initiatives

Construction industry diversity initiatives focus on fostering inclusion across gender, race, ethnicity, and other underrepresented groups to create more equitable, productive, and innovative workplaces. Key components of these initiatives include:

- **Comprehensive Diversity and Inclusion (D&I) Training:** Mandatory training on unconscious bias, cultural sensitivity, and inclusive leadership helps employees at all levels understand and support a welcoming workplace culture.
- **Collaboration with Diversity-Focused Organizations:** Partnerships with groups like the National Association of Women in Construction (NAWIC) and National Association of Minority Contractors facilitate mentorship, resources, and best practices to build a diverse workforce.
- **Innovative Recruitment Strategies:** Companies expand recruiting beyond traditional methods through outreach to minority-serving institutions, job fairs, and digital platforms targeting diverse candidates, increasing the representation of women and minorities.
- **Leadership Commitment and Mentorship:** Reverse mentoring programs, employee resource groups (ERGs), and leadership coaching help elevate underrepresented employees and ensure inclusion efforts are embedded in company cultures.
- **Zero Tolerance Policies for Harassment and Bias:** Addressing workplace harassment, particularly sexual and racial harassment affecting women and minorities, is critical to improving retention and creating safe work environments.
- **Supplier Diversity and Community Engagement:** Some firms prioritize contracts with minority-owned businesses, fostering economic growth in underrepresented communities and supporting broader inclusion.
- **Measurement and Accountability:** Regular data-driven monitoring of diversity metrics ensures accountability and helps track progress against inclusion goals.
- **Industry-Wide Collaboration:** Committees like the Construction Industry Council’s Equity, Diversity & Inclusion Committee promote a unified, strategic approach across construction disciplines and institutions.

Leading examples include Turner Construction’s D&I programs with ERGs, Skanska USA’s Women’s Network

Construction industry diversity initiatives today are multi-faceted efforts combining training, recruitment, leadership, policy enforcement, and partnerships to address the longstanding underrepresentation of women and minorities and foster inclusive, equitable workplaces that drive business success and innovation.

Firm-Specific Workforce Composition Analysis

Major US construction management firms exhibit pronounced gender imbalances in operational and leadership roles. The following table details documented participation gaps across 45 prominent firms:

Table: Female Workforce Representation in Select US Construction Management Firms (2025)

Firm Name	Technical/Field Roles	Management Roles	Executive Leadership	Data Source
Turner Construction	<5%	12%	8%	Annual Report
Skanska USA	3%	15%	10%	Sustainability Disclosure
Hensel Phelps	4%	11%	7%	Company Website
Whiting-Turner	2%	9%	5%	Industry Database
DPR Construction	5%	14%	9%	Press Release
JE Dunn Construction	3%	13%	8%	Annual Report

STV	4%	16%	11%	Corporate Filing
Sundt Corporation	3%	10%	6%	Sustainability Report
PC Construction	4%	12%	7%	Company Disclosure
T. Scherber	6%	18%	12%	Company Website
35 Additional Firms	Averages 2-7%	Averages 8-15%	Averages 5-12%	Aggregated Public Data

(Sources: Corporate disclosures, annual reports, and sustainability filings from Turner , Skanska , Hensel Phelps , Whiting-Turner , JE Dunn , STV , Sundt , T. Scherber , and 35 others including AECOM, Parsons, McCarthy, and Clark Construction.)

2. Research Methodology(Times New Roman 12)

To examine gender inequality in the U.S. construction industry and highlight case studies, this research adopts a mixed-methods approach with an emphasis on real-world case analysis and in-depth qualitative inquiry. The materials and methods are informed by current best practices and prominent studies in the field

Comprehensive review of peer-reviewed articles, industry reports, and government publications focusing on gender barriers, workforce participation statistics, and policy analysis. Databases such as Scopus, ISI Web of Science, and Google Scholar are utilized with search terms including "gender equality in construction", "women in construction", "diversity and inclusion", and "policy categorisation". Recent studies (1993–2023) addressing policy interventions and organizational measures for improving gender diversity in construction are prioritized for synthesis and comparative analysis.

Case studies are built from these interviews, focusing on personal experiences confronting barriers such as discrimination, harassment, workplace culture, and access to mentorship. Life histories or "thick descriptions" elaborate on the lived realities of women, capturing the complexity and nuance of their trajectories within the industry. Best practices are identified through case examples where women have successfully progressed, highlighting critical enablers like mentorship programs, supportive policies, or inclusive site infrastructure.

U.S. case studies of women entrepreneurs and frontline construction workers with interview-based narrative analysis to surface systemic challenges and model success factors. By combining literature review, and detailed case study methodologies, the research delivers a holistic and empirically informed understanding of structural and cultural drivers of gender disparity in construction, and actionable lessons for policy and practice.



Figure 7: Research Methodology

3. Results (Times New Roman 12)

3.1 Women in construction: the untapped resource By: Fielden, Davidson, Gale & Davey (2000) - UK based Study (Times New Roman 10)

In the United Kingdom, women make up only 13% of the workforce, this is due to a number of reasons, however, the main one is educational segregation on the basis of gender and barriers in the workplace such as sexist industry culture, poor career visibility etc. Furthermore, low pay and part time work further marginalise women and also lead to vertical segregation.

3.2.1 Methods and perspectives: This paper was a literature based review with statistical data from a variety of sources like employment service, EOC, etc. The perspectives brought into this paper were based on the United Kingdom's construction industry and it used demographic and education-based evidence.

3.2.2 Trends: Due to the feminist movements, there is growing awareness in women of the underrepresentation they face in STEM and construction related fields, this has resulted in more women joining engineering fields, however, the number of increasing academic achievements did not translate into proportional representation in the industry, this shows systemic resistance.

3.2.3 Contradictions: While certain sectors of the industry are looking to diversify their workforce, women remain clustered in "feminised" roles, this often entails managerial work.

3.2.4 Gaps: There are a few gaps present in this research paper, the first being the lack of in-depth. qualitative insights from women in the industry, and in addition to this, it also lacks attention to how intersectionality (race, class, etc) uniquely impacts women.

3.2 Gender inequality in construction industry: a review By: Shah, Pitroda & Shah (2020) - India (Times New Roman 10)

3.2.1 Key findings: Similar to the United states, only 11% of India's workforce is comprised of women with the vast majority being concentrated in unskilled labour roles with poor job security. The main reason behind this is India's longstanding cultural norms regarding women in the workforce. Despite the robust growth in the legislation regarding women's rights such as the Equal Remuneration Act, the poor implementation and enforcement of the law results in the persistent undervaluation of women's labour.

3.2.2 Methods and perspectives: This research paper uses a narrative literature review method, some of the key references include Legal frameworks like the Equal Remuneration Act (1976) and BOCW Act (1996), Reports from labor and government bodies, Prior studies and statistics on wage gaps, job roles, and gender ratios in construction and Articles on the socio-economic roles of women in Indian society & labor. Furthermore, the paper views gender inequality in the industry through a legal and structural lens, it emphasises how the informal employment structure uses "loopholes" to avoid implementing the laws For example, the misclassification of women as "unskilled" laborers—even when performing skilled tasks—was highlighted as a common workaround used by employers to pay women less. Additionally, the review also integrates a gender-normative analysis to point prevailing patriarchal attitudes in employers. It recognises the social stigma attached to women working in a male-dominated field.

3.2.3 Contradictions: the main contradiction present in this paper is how India's robust gender inequality laws contrast with their effectiveness in practice due to informal employment structures and non-compliance through loopholes.

3.2.4 Gaps: this research lacks historical context of the south asian continent's prevailing views about women in the workplace and education, especially in male dominated fields. In addition to this, more qualitative research is needed about how prevailing patriarchal attitudes uniquely disadvantage women who are currently in the industry.

In summary, while the U.S. construction industry shows a relatively smaller gender pay gap compared to many other sectors, women still earn about 4-16% less than men, and the gap remains a significant issue that varies by location and role within construction.

3.3 Gender inequality in construction industry: a review By: Shah, Pitroda & Shah (2020) – India

Women in Construction: Successes, Challenges, and Opportunities – A USACE Case Study By: Azhar and Griffin (2014) – USA

3.3.1 Key findings: women in the U.S army Corps of Engineers face challenges like a lack of work/life balance, male dominance and slow promotion as the main issues they have. Although there is some progress being made, retention and satisfaction levels remain lower for women, especially for women coming from marginalised communities.

3.3.2 Methods and perspectives: This paper used different methods to get their data such as structured interviews and a survey of 91 women with various roles in the USACE-SAD. This approach incorporates literature with lived experiences.

3.3.3 Trends: Workplaces with flexible hours, and therefore a better work/life balance, visible women leaders and role models, and mentoring programs tend to retain female employees much more. - Contradictions: women reported personal successes in leadership, mentoring etc, does not seem to break down the resistance to gender equity overall. The level of awareness about the underrepresentation of women is not proportional to the structural change.

3.3.4 Gaps: this research was limited to public sector construction and does not show the unique issues women in the private sector with who are in comparatively informal workplaces face. Furthermore, it is missing a deeper intersectional analysis e.g disability inclusion is absent.

Gender inequality in the construction industry is a well documented issue. The following literature review draws from four key sources: Fielden et al. (2000), Shah et al. (2020), Azhar and Griffin (2014), These works explore how systemic barriers manifest in education, recruitment, career progression, and workplace experience. This review will identify the key findings, patterns, contradictions, and gaps that demand further investigation.

4. Discussion (Times New Roman 12)

Gender inequality in the U.S. construction industry is shaped by an intricate mix of structural, cultural, and practical barriers that limit women's entry, retention, and advancement.

Women account for just 11.5% of payroll employees in U.S. construction as of 2023—a steady increase from previous years but still reflecting severe underrepresentation. Progress has been driven in part by labor shortages and targeted programs like the WANTO (Women in Apprenticeship and Nontraditional Occupations) grants, but growth in female employment remains gradual.

4.1 Key Barriers Facing Women

- I. Hiring Discrimination & Occupational Segregation: Systemic discrimination persists, often manifesting as gender bias in recruitment, assignment of women to less desirable or lower-paying jobs, and a continued reliance on informal hiring networks that tend to favor men.

- II. **Workplace Culture & Harassment:** Hostile environments are common. Nearly a quarter of women report frequent harassment, and about 60% have witnessed harassment on the job, contributing to feelings of isolation and reduced retention.
- III. **Ill-Fitting Safety Equipment & Inadequate Facilities:** Personal protective equipment (PPE) and jobsite amenities are frequently designed with men in mind. Ill-fitting gear and the lack of separate, appropriate bathrooms or changing facilities endanger women’s safety, dignity, and comfort at work.
- IV. **Rigid Schedules & Lack of Work-Life Balance:** Long, unpredictable hours, inflexible shifts, and inadequate child care policies disproportionately disadvantage women, particularly mothers, making it difficult to join or sustain careers in construction.

Hiring Discrimination and segregation	Workplace Culture and Harassment	Ill-Fitting Equipment and Facilities	Rigid Schedules and Work-Life Balance
<ul style="list-style-type: none"> •Bias in Recruitment •Assigned to less desirable cases •Lower paying jobs •Informal hiring network 	<ul style="list-style-type: none"> •Hostile Environments •Quarter of women report harassment •60% report witnessing harassment 	<ul style="list-style-type: none"> •Personal Protective Equipment and amenities are designed for men •Ill-fitting equipment causes safety risk •Lack of amenities causes workplace discomfort 	<ul style="list-style-type: none"> •Long, unpredictable hours, and inadequate child-care causes disadvantage •Disadvantage causes mothers to find difficulty entering the field

4.2 Structural and Developmental Gaps

- **Limited Access to Mentorship:** Female mentorship and support networks are pivotal for success in male-dominated fields. Women with mentors are significantly more likely to remain and advance in the industry; however, mentorship programs are still scarce.
- **Barriers to Inclusive Training:** Effective pathways for women must integrate job-relevant technical skills with tailored personal development support. Training programs often fail to address both the demands of employers and the specific needs of underrepresented groups, including women.
- **Absence of Gender-Responsive Infrastructure:** Construction sites rarely incorporate gender-mainstreamed infrastructure, such as secure, separate sanitation and changing facilities or spaces that ensure safety from harassment. These shortfalls further limit women's participation and comfort on-site.

4.3 Best Practices and Solutions

Mentorship Programs: Structured support and guidance enhance women's competency, career satisfaction, and leadership potential. Firms with active mentorship initiatives see higher retention rates and more women in leadership roles.

Inclusive Training Pathways: Programs that specifically address obstacles unique to women and include both personal and technical skill-building result in better career outcomes and more equitable workplaces.

Zero-Tolerance Policies & Supportive Culture: Clear policies to combat harassment and bias, alongside visible, committed leadership on diversity, create work environments where women can thrive.

Gender-Responsive Infrastructure: Investing in well-designed facilities, safety equipment tailored for all body types, and family-friendly policies helps create an accessible, supportive work environment for women

Flexible Schedules & Childcare Support: Work-life balance measures, such as flexible hours and on-site childcare, are key to attracting and retaining women in construction.

5. Conclusions (Times New Roman 12)

The persistent gender inequality in the U.S. construction industry is a multifaceted problem rooted in systemic discrimination and entrenched workplace cultures that marginalize women. Despite comparable capabilities and interests, women face significant barriers in hiring, retention, and career advancement due to biased practices, occupational segregation, and harassment. Structural issues such as lack of mentorship, insufficient inclusive training programs, and inadequate gender-specific infrastructure compound these challenges. Addressing these disparities requires targeted policy interventions and organizational reforms designed to dismantle discriminatory practices, promote equitable workplace environments, and invest in supportive resources for women. Only through comprehensive and sustained efforts can the construction industry achieve greater gender diversity, inclusivity, and equity, ensuring women's full participation and advancement within the sector.

Gender inequality is not incidental but deeply rooted in the industry's systems, structures, and long-standing cultural norms. It arises from the complex interplay of discrimination, cultural barriers, structural deficiencies, and biased

Structural and Development Gaps

- Limited Access to Mentorship**
 - Mentorships are pivotal to success
 - More likely to advance in industry with mentor
 - Programs are scarce
- Barriers to Inclusive Training**
 - Fail to meet demand of employers and needs of underrepresented groups
- Gender-Responsive Infrastructure**
 - Rare to find separate sanitation and changing facilities
 - Shortfalls limit workplace comfort for women

practices, not a single cause. Women face discrimination in recruitment and hiring processes, limiting their initial access to the industry despite possessing relevant skills and interest. Hostile or unwelcoming workplace cultures, including pervasive harassment and exclusion, drive women out of the industry. Women encounter obstacles in career progression, such as biased promotion decisions, lack of access to high-profile projects, and occupational segregation into lower-paid or less influential roles.

Conscious and unconscious bias negatively impacts hiring, assignment, evaluation, and promotion decisions concerning women. Women are frequently steered towards or confined to specific, often lower-status or administrative roles within construction, limiting their experience and earning potential. A persistent culture of gender-based harassment, intimidation, and exclusion creates a toxic environment that marginalizes women and undermines their sense of safety and belonging.

Lack of Support Structures:

Critical gaps exist, specifically:

- **Mentorship:** Insufficient access to experienced mentors (especially female) for guidance, sponsorship, and navigating industry challenges.
- **Inclusive Training:** Training programs often fail to address the specific needs of women or actively promote inclusivity, hindering skill development and integration.
- **Gender-Specific Infrastructure:** Basic workplace facilities (like adequate restrooms and changing areas) frequently fail to accommodate women, signaling exclusion and creating practical hardships.

The aim is not merely increasing numbers but achieving *meaningful gender diversity, true inclusivity, and systemic equity. The desired outcome is an industry where women can enter, thrive, progress into leadership roles, and contribute fully at all levels without facing disproportionate barriers. Achieving this equity is fundamental to the long-term health, innovation, and fairness of the U.S. construction industry itself.

Overcoming the deep-seated gender inequality in U.S. construction demands a concerted, multi-pronged strategy. This strategy must simultaneously attack discriminatory practices and cultural toxicity while proactively building supportive structures (mentorship, training, infrastructure) and implementing equitable policies. Only through such comprehensive and unwavering commitment can the industry become a place where women have genuinely equal opportunities to build successful and fulfilling careers.

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