



Article

# Gender Equality in the Irish Construction Industry

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## Keywords

Gender equality; caring commitments; career development; early career choices; female acceptance; flexible working; male-dominated; mentoring; sponsorship.

## Abstract

The construction industry continues to be one of the largest growing and male-dominated sectors in Ireland. The purpose of this study was to identify and examine the issues relating to attracting women to the construction industry, retaining and promoting women working in the industry and key initiatives from leading construction organisations and the Irish government, to promote gender equality for both men and women in the industry. The methodology included a qualitative study with key stakeholders. Key findings of issues included early career choices amongst young females, the male-dominated culture, and image of the industry, long working hours conflicting with family commitments, and the need for radical improvements to flexible working options, career development and mentoring programmes.

## **Introduction**

### **Background**

The Irish construction industry is one of Ireland's key contributors to Gross Domestic Product and the largest growing and male-dominated sector in Ireland. However, although the accelerating growth in the industry requires an increase in skilled trade employment, the industry is experiencing a significant skill shortage in Ireland. With current labour shortages, the lack of women represented in the Irish construction industry is concerning to the industry, professional sector bodies, and the Irish government.

This research focused on Gender Equality in the Irish construction industry and set out to elicit responses from key construction organisations and the Irish government, in order to understand the actions they are taking to address the gender equality challenge in the industry.

The research argued that the untapped resources, talent, and diversity of skills that women have to offer are being underutilised and are crucial in addressing the skills shortage that is necessary for the Irish economy to support the industry's growth and accomplish the construction industry's objectives.

Literature and data were researched and studied on gender segregation within the Irish construction industry, the demonstration of women in the National Apprenticeship Office's trade apprenticeship programmes, and the Higher Education Institutions undergraduate construction degree courses, in order to understand the interest of women in construction related education and programmes. The review of literature and data analysis across not only construction, but male-dominated industries e.g., Army, Air Force, Construction and Motor, suggested male culture and sexism continues to exist and that many professions continue to be heavily gender segregated. The studies reviewed highlighted several gender equality issues and common themes faced by women in the Irish construction industry, including long working hours conflicting with family commitments, the lack of flexible working options, career development and progression, and mentoring.

### **Research Question and Objectives**

The research aims to comprehend the current employment status of women in the Irish construction industry and examines and identifies issues confronted by women upon entry and retention in the industry. It explores other male-dominated industries where women are thriving, and discusses opportunities and recommendations for attracting, retaining, and promoting women into the Irish construction industry. It seeks to understand the initiatives committed to by the key Irish construction organisations and the Irish government to promote equality, diversity and inclusion for women and men in construction.

Key questions included:

1. What were the challenges in the Irish construction industry with gender equality?
2. What was their action plan to address?
3. What was their experience in engaging with the gender pay gap first year reporting legislation in 2022?

Findings from literature and research data analysis of the key organisations in the Irish construction industry suggested many are working on promoting a greater push to attract women into the industry and greater gender diversity in the Irish construction sector.<sup>1</sup> However, gender equality continues to be a challenge in their organisations and the industry.

The research suggested that although there are many opportunities for women in the Irish construction industry and despite investment, programmes, and initiatives to attract, retain and promote women into the industry, female representation continues to remain low and it still remains one of the most gender-biased and discriminatory industries in Ireland.

## Literature Review

Gender equality and low participation of women in the construction industry has justified research studies across the globe, with women under-represented at all levels from skilled trade labour professions to leadership roles. The objective of the literature review was to evaluate research studies on gender equality in the Irish construction industry and to provide a means for research into the limitations and proposal for this research development.

In the United States of America, the total construction industry workforce was 11,790,000, with women accounting for 10.9% in 2022.<sup>2</sup> In Australia, statistics were more positive in the construction industry, accounting for 18.5% for women and 81.5% for

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1. BAM Ireland, *Explaining Our Gender Pay Gap 2022* (2022), <https://paygapie/reportfile?id=53:>  
 Glenveagh, *Building Better Transparency: Gender Pay Gap Report 2022* (2022), <https://glenveaghie/download/gpg-report-2022:>  
 John Paul Construction, *Gender Pay Gap Report 2022* (2022), <https://www.johnnpaul.ie/wp-content/uploads/2023/01/gender-pay-gap-report-2022pdf:>  
 Mercury Ireland, *Gender Pay Gap Report 2022* (2022), <https://www.mercuryeng.com/wp-content/uploads/2022/12/mercury-gender-pay-gap-report-2022-finalpdf:>  
 P J Hegarty & Sons, *Gender Pay Gap 2022* (2022), <https://www.pjhegarty.ie/wp-content/uploads/2022/12/pj-hegarty-sons-gender-pay-gap-2022-reduced-sizepdf:>  
 John Sisk & Son, *Gender Pay Gap Report Ireland 2022* (2022), [https://www.johnsiskandson.com/uploads/pdf/gender-pay-gap-report-ireland-2022\\_2022-12-16-154609\\_nuqpdf:](https://www.johnsiskandson.com/uploads/pdf/gender-pay-gap-report-ireland-2022_2022-12-16-154609_nuqpdf:)
  2. U.S. Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey 2022," (2023), <https://www.bls.gov/cps/cpsaat18htm>

men.<sup>3</sup> In Europe, the statistics for women working in construction trended lower. In 2022, the European Union employment rate was 80.0% for men and 69.3 % for women, representing a 10.7% employment gender gap.<sup>4</sup> Women accounted for only 15% of the construction industry's workforce in Europe.<sup>5</sup>

In Ireland, statistics showed an even lower rate of women in construction. According to the Central Statistics Office, 2022,<sup>6</sup> the preliminary population count of Ireland was 5.1 million, with 2,544,549 males and 2,604,590 females recorded. The labour force survey showed the number of people in employment in the year to Q2 2023 was 2,643,000. In Q2 2023, 170,200 people were employed in the Irish Construction sector, of these 155,000 (91.07%) were men and 15,200 (8.93%) were women.<sup>7</sup> This data largely represented women employed in administrative and office roles, with only a small number of women working on construction sites, leaving a significant talent pool untapped for construction trade roles.

However, the UK construction industry was experiencing a record proportion of women in their workforce for the first time since the UK Office of National Statistics began compiling official records of the gender breakdown in the industry in 1997.<sup>8</sup> According to the UK Office of National Statistics,<sup>9</sup> approximately 340,000 women were recorded as employed in the UK construction industry in the second quarter of 2023, that is, 15.8% females from April to June 2023, an increase of 1.2% on the previous quarter. This figure stood at 12.6% before the Covid lockdown.

Banks<sup>10</sup> reported this is due to a number of factors including (1) an aging male population retiring from the industry, (2) women entering the industry after graduating from college, and (3) retention of women at mid-career, as organisations attempt to improve work/life balance and introduce flexibility initiatives, with all factors resulting in female participation and statistics increasing. However, upon research of this data, it did not represent the breakdown of roles of women in the UK

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3. Australian Bureau of Statistics, *Characteristics Spotlight: 2022* (2023), <https://www.abs.gov.au/articles/characteristics-spotlight-2022>
  4. Eurostat, *Employment - Annual Statistics 2022* (2023), [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Employment\\_-\\_annual\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Employment_-_annual_statistics)
  5. Oxford Economics, *Women in construction: Bridging the green jobs gap* (2023), <https://www.oxfordeconomics.com/resource/europe-women-in-construction-bridging-the-green-jobs-gap>
  6. Central Statistics Office, "Census of Population 2022 - Preliminary Results (2022)," <https://www.csoie/en/releasesandpublications/ep/p-cpr/censusofpopulation2022-preliminaryresults/>
  7. Central Statistics Office, "Labour Force Survey Quarter 2 2023 (2023)," <https://www.csoie/en/releasesandpublications/ep/p-lfs/labourforcesurveyquarter2023/employment/>
  8. C. Banks, "Record Proportion of Construction Workforce are Women," *Construction News*, (02 October, 2023) <https://www.constructionnews.couk/inspire-me/record-proportion-of-construction-workforce-are-women-02-10-2023/>
  9. Office of National Statistics, "Construction Statistics Annual Tables 2023," (2023), <https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/datasets/constructionstatisticsannualtables>
  10. Banks, "Record Proportion of Construction Workforce are Women".

construction industry, which may suggest these roles are office support roles and not skills trades, thus camouflaging the gender equality issue in the UK construction industry.

In recent years, to address and mitigate the skills shortage and embrace the benefits of a diverse workforce, the Irish government, sector bodies, and leading construction organisations have tried to attract and increase the number of women into the industry by introducing government funded programmes such as Generation Apprenticeship.<sup>11</sup>

An under representation of women in the Irish construction industry was evident in the trades / crafts professions. Apprenticeship training programmes is a career option that provides opportunities for women to attain entry into construction trade / crafts jobs. These programmes include classroom learning, work experience, coaching, mentoring and role models in the Irish construction industry. The National Apprenticeship Office's (NAO) government funded Generation Apprenticeships set up the Facts, Faces, Futures campaign,<sup>12</sup> which aims to promote the options and availability of apprenticeships and increase the participation of women in apprenticeship careers, to support the Irish government's action plan for apprenticeship 2021-2025. According to the NAO, the total number of applicants by year 2022 was 6,299, of which 6,159 males and 140 females. Female applications for Brick and Stone laying and Pipefitting was 0, with Carpentry and Joinery, Construction Plant Fitting, Plastering and Plumbing reporting less than 5 female applicants for each trade in 2022. These statistics are concerning, considering Generation Apprenticeship claimed female representation in craft apprenticeships had doubled in the last 3 years.

Technical graduate courses are another way to acquire construction related skills. According to the Higher Education Authority (HEA),<sup>13</sup> in a report on the trend of construction students and graduates, the total number of students studying construction related courses / programmes in 2021/2 was 9,510, representing a 26% increase from 2017/18. This includes 3,880 students studying Architecture, Town Planning and other Construction, and 5,630 studying Building and Civil Engineering. 79% of construction graduates secured permanent contract employment and 7% of graduates continued to further studies. In the 2022/23 academic year, the total number of students was 256,785, of which 32,175 were participating in Engineering, Manufacturing and Construction fields of study, of which 24,240 were Male, 840 Female, and 95 non-binary or undeclared.<sup>14</sup>

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11. Generation Apprenticeship, "Information and Background," 2020, <https://apprenticeshipie/more/about>

12. Generation Apprenticeship, "Facts, Faces, Futures Resources," 12 May 2023, <https://apprenticeshipie/news-events/news/facts-faces-futures-campaign>

13. Higher Education Authority, "Construction - Student Trends and Graduate Outcomes 2023," (2023), <https://hea.ie/assets/uploads/2023/06/Construction-Info-Bytpepdf>

14. Ibid.

## Literature Findings

The literature review research study was informed by information gathered from a variety of sources including academic research journals from the Library of the Institute of Art, Design + Technology, Google Scholar, and gender diversity reports of key organisations in the Irish construction industry.

The review of academic literature across not only construction, but male-dominated industries including Army, Air Force, Motor and the Irish construction industry showed male-dominated culture continues to exist and many professions continue to be heavily gender segregated. The findings showed women are faced with common issues on entry and working in the industry. These issues contribute to the lower rate of women in construction. A number of gender equality issues were highlighted in the literature, for attracting, developing, retaining and promoting women into male-dominated industries, including long work hours conflicting with family commitments, the lack of flexible work options, career development/progression and mentoring. These themes presented some of the issues that account for women's low participation in the construction industry, as discussed below.

### Long Working Hours / Family Commitments

Long working hours with early start times conflicting with childcare facilities opening times and women bearing the responsibility of unpaid domestic labour, contributes to the shortage of females in the male-dominated workforce.<sup>15</sup> Bridges argues this

15. A. R. J. Dainty, R. H. Neale, and B. M. Bagilhole, "Women's Careers in Large Construction Companies: Expectations Unfulfilled?" *Career Development International* 4, no. 7 (1999): 353–358, <https://doi.org/10.1108/13620439910295709>;
- H. Lingard and V. Francis, "The Work-Life Experiences of Office and Site-Based Employees in the Australian Construction Industry," *Construction Management and Economics* 22, no. 9 (2004): 991–1002, <https://doi.org/10.1080/0144619042000241444>;
- H. Lingard and J. Lin, "Career, Family and Work Environment Determinants of Organizational Commitment among Women in the Australian Construction Industry," *Construction Management and Economics* 22, no. 4 (2004): 409–420, <https://doi.org/10.1080/0144619032000122186>;
- K. Ness, "Constructing Masculinity in the Building Trades: Most Jobs in the Construction Industry Can Be Done by Women," *Gender, Work & Organization* 19, no. 6 (2012): 654–676, <https://doi.org/10.1111/j.1468-0432.2010.00551x>;
- K. J. Adogbo, A. D. Ibrahim, and Y. M. Ibrahim, "Development of a Framework for Attracting and Retaining Women in Construction Practice," *Journal of Construction in Developing Countries* 20, no. 1 (2015): 99–115;
- V. Francis, "What Influences Professional Women's Career Advancement in Construction?" *Construction Management and Economics* 35, no. 5 (2017): 254–275, <https://doi.org/10.1080/01446193.20161277026>;
- A. Afolabi et al., "Balancing the Female Identity in the Construction Industry," *Journal of Construction in Developing Countries* 24, no. 2 (2019): 83–104, <https://doi.org/10.21315/jcdc2019.24.24>;
- L. Clarke, *Women in the Building Sector* (European Trade Union Institute, 2021), [https://www.etui.org/sites/default/files/2021-05/6\\_Women%20in%20the%20Building%20Sectorpdf](https://www.etui.org/sites/default/files/2021-05/6_Women%20in%20the%20Building%20Sectorpdf);
- R. P. Zhang et al., "Does Gender Really Matter? A Closer Look at Early Career Women in Construction," *Construction Management and Economics* 39, no. 8 (2021): 669–686, <https://doi.org/10.1080/01446193.20211948087>;
- M. A. Sieghart, *The Authority Gap: Why Women Are Still Taken Less Seriously than Men, and What We Can Do about It* (London: Black Swan, 2022).

enables and benefits the male workforce to work long hours, thus contributing to gender inequality.<sup>16</sup> Literature showed the challenge of trying to balance family and work commitments and the pressure of long working hours had a negative impact on women participating in the labour market, resulting in a double bind.<sup>17</sup> This suggests women must adopt an 'either or'<sup>18</sup> attitude when it comes to work and family, and long work hours need to be reconsidered with shared domestic responsibilities for both men and women.

### ***Flexible Working Options***

Literature showed there was an overlap of long working hours with a lack of flexible working options, therefore hindering working mothers in male-dominated industries with work-family balance concerns needing to be addressed with managers supporting same.<sup>19</sup> However, Dainty et al.<sup>20</sup> and others<sup>21</sup> argue that most managers in male-dominated industries are male and likely to perceive female sub-ordinates' family commitments as a hindrance to work. This contributes to unconscious bias.

### ***Career Development and Progression***

As more women enter the workforce of male-dominated industries, opportunities for career progression into managerial and leadership positions are evolving, with some women progressing in their careers.<sup>22</sup> However, Naoum et al.<sup>23</sup> argue that women follow an alternative career path and have a perception of low 'global self worth',

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16. D. Bridges et al., "Negotiating Gender in the Male-Dominated Skilled Trades: A Systematic Literature Review," *Construction Management and Economics* 38, no. 10 (2020): 894–916, <https://doi.org/10.1080/01446193.2020.1762906>
  17. Ibid.
  18. Lingard and Lin, "Career, Family and Work Environment Determinants."
  19. J. A. Ericksen and D. E. P. Schultheiss, "Women Pursuing Careers in Trades and Construction," *Journal of Career Development* 36, no. 1 (2009): 68–89, <https://doi.org/10.1177/0894845309340797>;  
Francis, "What Influences Professional Women's Career Advancement in Construction?";  
Afolabi et al., "Balancing the Female Identity in the Construction Industry";  
Bridges et al., "Negotiating Gender."
  20. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?"
  21. S. L. Fielden et al., "Women in Construction: The Untapped Resource," *Construction Management and Economics* 18, no. 1 (2000): 113–121, <https://doi.org/10.1080/014461900371004>;  
Lingard and Lin, "Career, Family and Work Environment Determinants."
  22. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?";  
Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction";  
Adogbo, Ibrahim, and Ibrahim, "Development of a Framework for Attracting and Retaining Women in Construction Practice";  
Francis, "What Influences Professional Women's Career Advancement in Construction?";  
Afolabi et al., "Balancing the Female Identity in the Construction Industry";  
Bridges et al., "Negotiating Gender."
  23. S. G. Naoum et al., "Gender in the Construction Industry: Literature Review and Comparative Survey of Men's and Women's Perceptions in UK Construction Consultancies," *Journal of Management in Engineering* 36, no. 2 (2020), [https://doi.org/10.1061/\(ASCE\)ME.1943-54790000731](https://doi.org/10.1061/(ASCE)ME.1943-54790000731)

especially those aged over 40 years. Fielden et al.<sup>24</sup> and others<sup>25</sup> also argue that women choose to avoid career progression in these industries where male culture and discrimination is likely and prefer to assume back-office and administrative support functions.

## **Mentoring**

Female mentoring and role modelling is recommended as a vital approach to encourage and inspire women to enter the workforce.<sup>26</sup> However, inspiring and successful role models are difficult to find in male-dominated industries.<sup>27</sup> Afolabi et al.<sup>28</sup> claim that female mentoring does not support women's advancement but only supports them from leaving the workforce. Schwanke<sup>29</sup> and others<sup>30</sup> argue that women who have achieved successful careers do not support the career progression of other women, so as to ensure the security of their position at the top level with men, or 'gender-manoeuvring',<sup>31</sup> thus separating them from junior level females. If women want to succeed, they need to 'lean in',<sup>32</sup> i.e. become one of the boys, to gender issues.<sup>33</sup>

From reviewing the 2022 Gender Pay Gap reports from key organisations in the Irish construction industry,<sup>34</sup> it seemed many were working on promoting a greater push to attract the untapped resources of women into the industry, to address the skills shortages and support greater gender diversity across the construction sector. Hourly remuneration includes all forms of monetary pay, allowances and bonuses.

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24. Fielden et al., "Women in Construction: The Untapped Resource."
  25. D.-A. Schwanke, "Barriers for Women to Positions of Power: How Societal and Corporate Structures, Perceptions of Leadership and Discrimination Restrict Women's Advancement to Authority", *Earth Common Journal* 3, no. 2 (2013), <https://doi.org/10.31542/j.ecj125>;  
C. Norberg and M. Johansson, "Women and 'Ideal' Women: The Representation of Women in the Construction Industry," *Gender Issues* 38, no. 1 (2021): 1–24, <https://doi.org/10.1007/s12147-020-09257-0>
  26. Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction";  
Francis, "What Influences Professional Women's Career Advancement in Construction?";  
Afolabi et al., "Balancing the Female Identity in the Construction Industry."
  27. Lingard and Lin, "Career, Family and Work Environment Determinants";  
Adogbo et al., "Development of a Framework."
  28. A. Afolabi et al., "Balancing the Female Identity in the Construction Industry," *Journal of Construction in Developing Countries* 24, no. 2 (2019): 83–104, <https://doi.org/10.21315/jcdc2019.24.2.4>
  29. Schwanke, "Barriers for Women to Positions of Power."
  30. Francis, "What Influences Professional Women's Career Advancement in Construction?";  
Bridges et al., "Negotiating Gender";  
Norberg and Johansson, "Women and 'Ideal' Women."
  31. Bridges et al., "Negotiating gender."
  32. S. Sandberg and N. Scovell, *Lean In: Women, Work, and the Will to Lead* (London: Allen, 2014)..
  33. M. Adamson et al., "The Quality of Equality: Thinking Differently About Gender Inclusion in Organizations," *Human Resource Management International Digest* 24, no. 7 (2016): 8–11, <https://doi.org/10.1108/HRMID-04-2016-0060>
  34. Lingard and Lin, "Career, Family and Work Environment Determinants";



**Table 1:** Hourly remuneration includes all forms of monetary pay, allowances and bonuses.

| Construction Organisation | 2022 GPG Hourly Remuneration Pay |               |
|---------------------------|----------------------------------|---------------|
|                           | <i>Mean</i>                      | <i>Median</i> |
| BAM – Civil               | 29.20%                           | 29.70%        |
| BAM – Building            | 38.69%                           | 40.99%        |
| Glenveagh                 | 34%                              | 23%           |
| John Paul Construction    | 13%                              | 21%           |
| Mercury Ireland           | 16.3%                            | 14.8%         |
| PJ Hegarty & Sons         | 26%                              | 29%           |
| Sisk                      | 13.7%                            | 23.3%         |

Figures represent difference in female earnings expressed as a percentage of male earnings.

The literature review derived considerable research findings to present the low participation of women in the male-dominated cultured construction industry and acknowledged that the gender pay gap, gender segregation, and inequality continued to exist.

## Methodology

### Research Design

The methodology used in the research study included a qualitative study consisting of interviews with key stakeholders. The research philosophy approach took a subjective, interpretative, relativist, ontological perspective. From an Epistemological perspective, the qualitative research<sup>35</sup> approach and data collection method included in-depth explorative, semi-structured individual interviews, followed by documented analysis of findings. The justification for this approach was to reveal, examine and assess interview participants individual views, opinions, ideas and understand the real lived experience and perspective of employees to gender equality in the Irish construction industry. This methodology approach was deemed appropriate to best answer and explore the research questions and hypothesis.

### Sampling Strategy

To source clear and in-depth insights into the topic of gender equality in the construction industry in Ireland, the research consisted of a small sample size of interviews with three different target sample groups, on a wide spectrum of perceptions of gender equality in the industry, including:

1. Two human resources directors from top construction organisations in Ireland, who have the resources to support gender equality initiatives and programmes, but based on their 2022 Gender Pay Gap reports, do not seem

35. K. Burt and M. Oaksford, "Qualitative Methods: Beyond Beliefs and Desires," *The Psychologist* 12 (1999): 332–335, <https://thepsychologist.bps.org.uk/volume-12/edition-7/qualitative-methods-beyond-beliefs-and-desires-0>

- to have addressed the issue of gender inequality in their organisations and the industry.
2. A senior construction studies lecturer in a third level technological university.
  3. Two women at different stages of their careers, with varied work experience in the construction industry, which aimed to capture their individual lived experience.

Interviewees were identified and recruited via online social media searches of the Irish construction industry and third level technological universities.

Research noted the small sample size may influence the wider applicability of results.

### **Participants' Demographics**

Demographics included a non-homogenous sample of five interview participants, one male and four females, all white, whose ages ranged from mid-forties to late-fifties. Four were Irish and one European. Three participants worked in a variety of professional roles in private construction organisations, one in the public sector and the lecturer working in the Higher Education Authority. All were directly employed by their current organisation / institution. 20% worked in the Irish construction industry throughout their work life careers.

### **Research Question Design**

The interview questions were developed for the research phenomenon from analysing the critical data points of the research objective and were selected specifically for the three different target sample groups. The focus of the interviews was on gender equality and how to attract, retain, and promote women into the construction industry in Ireland and the issues experienced.

### **Qualitative Data Collection**

All participants were invited via an introduction email to participate in the research interviews. Interviews were conducted during October and November 2023 in face-to-face in locations selected by participants.

The interviews were conducted using open questions in a relaxed manner to encourage participants to respond with qualitative informative responses for research data collection. Interviews began with introductions and detailing the background and aim of the research study being conducted, which allowed both parties to become acquainted. Participants were reminded they could refuse to participate and answer any questions, and have their data removed from the study. The two women interviewed had different personal life experiences, with one woman working her career life in Ireland and the other, working globally throughout her career. One was single with no children and one was married with children. The two women were asked why they chose a career in construction, their career history/

path, past experiences, key influences, and their current roles. In closing interviews, participants were debriefed, outlining their rights to withdraw from the study and any questions they had regarding the research study, interview or how data will be managed. The Interview duration was approximately 30 minutes and they were audio recorded and transcribed.

### **Data Analysis Procedure**

Qualitative responses were extracted from the data responses of the interviews and grouped to provide structure in preparation for thematic analysis,<sup>36</sup> which is the method of identifying, analysing and reporting themes within the qualitative data. The six stages of thematic analysis include (1) familiarisation of the data, (2) generating codes, (3) allocating themes from the codes, (4) reviewing and refining themes (5) defining and naming the theme, and (6) producing the findings of the themes in accordance with the research.

### **Ethical Considerations**

In advance of the research interviews, informed consent was received from all participants. Anonymity, non-identifiability, and confidentiality were assured. Before commencing face-to-face interviews, the information sheet and consent forms were discussed in detail, for permission for the interview to proceed and use of data subsequently, signed by both researcher and participants.

### **Research Findings**

The research utilised open questions to gather qualitative responses from interview participants. The data collected from the interviews conducted for this research addressed the following research questions (see Appendix for all interview questions):

1. Do you think the construction industry in Ireland is changing?
2. If so, do you perceive these changes as positive or negative?
3. What are your thoughts and/or feedback on the first year (2022) of Gender Pay Gap reporting legislation for the overall industry?
4. Can you share with me your thoughts and/or feedback on any barriers you are aware of, highlighted by women in the industry?
5. What challenges do you perceive for the future with attracting women into the Irish construction industry?

Following Braun and Clarke's<sup>37</sup> thematic analysis, the six stages of the process found four major themes, eight minor themes constructed from twenty-two codes. The themes were: (1) Early Career Choices, (2) Organisation Sponsorship (3) Female

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36. V. Braun and V. Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research in Psychology* 3, no. 2 (2006): 77–101, <https://doi.org/10.1191/1478088706qp0630a>;

V. Braun and V. Clarke, *Thematic Analysis: A Practical Guide* (Los Angeles: SAGE, 2022).

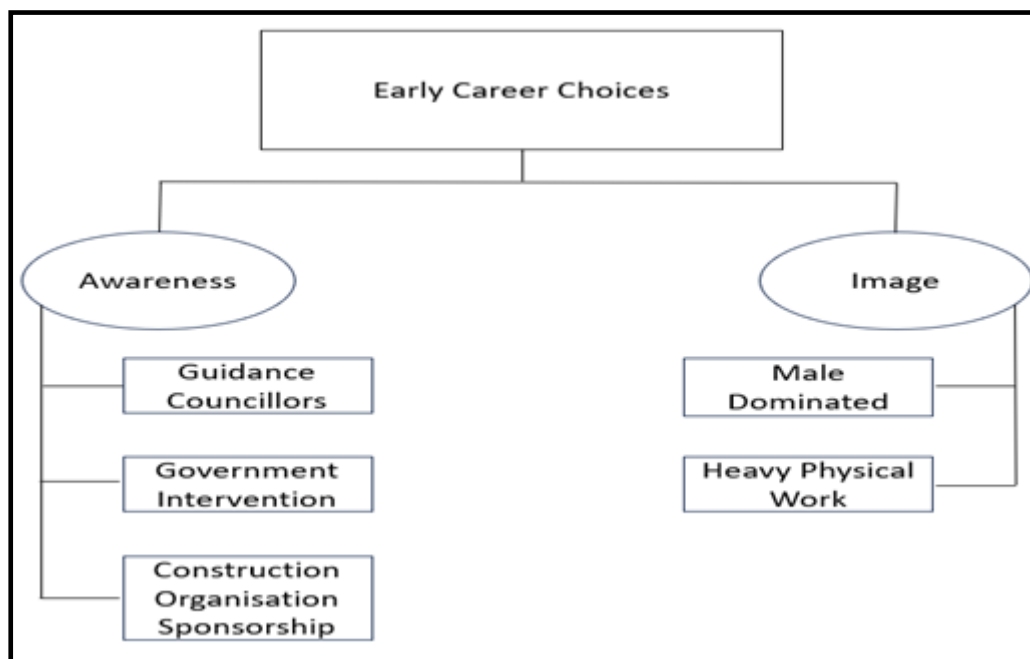
37. Braun and Clarke, "Using Thematic Analysis in Psychology."

Acceptance, and (4) Caring Commitments. Each of these individual themes, associated minor themes, and codes will now be discussed.

## Qualitative Analysis

### Early Career Choices

The first theme identified was Early Career Choices, which was derived as participants referred to the challenges of attracting females to construction related courses, the negative perception of the Irish construction industry's working environment, and how this is impacting the Irish education system and the construction industry. The theme is divided into two minor themes: (1) Awareness and (2) Image. These two minor themes were derived from five codes. Participants' codes for Awareness included guidance councillors, government intervention, and construction organisation sponsorship. Participants' codes for Image included male-dominated and heavy physical work. The major theme, associated minor themes and codes are shown in Figure 1.



**Figure 1:** Early Career Choice's Thematic Map

The minor theme for Awareness was derived from participants' quotes relating to attracting females into the construction industry. Some participants extracts are shown below:

"It's a circle that starts off, actually when people are in national school, because if a little girl decides to go to a secondary school that doesn't do any of these STEM subjects, the chances of her getting into a college course for construction studies are lessened, so we need to catch it at that stage" – **HR Manager 2**

"It's primary schools where we need to open it up and a child is not going to make that decision then, but I think that really has to be considered at

government stage. It's bigger than organisations, we all have to come at this together" – **HR Manager 1**

"Don't have as many female students as male students" – **Construction Studies Lecturer**

"We're struggling looking for people, need for females to consider offers to attract them and to get them to study the construction subjects so that they are able to join the workforce" – **HR Manager 1**

"I would really like to see more women and girls, because it's a brilliant education" – **Female Candidate 2**

There was a positive response derived for this minor theme, as shown below:

"Numbers have been increasing" – **Construction Studies Lecturer**

The minor theme of Image was derived from participants' quotes relating to the negative perception of the Irish construction industry. Some participants' extracts are shown below:

"Running a boy's club" – **Female Candidate 1**

"The perception of the construction industry was monkey boots, being out in all the elements and wearing protective gear, walking sites, maybe doing a lot of manual labour, the industry has worked very hard to change that perception" – **HR Manager 2.**

"Seen as a physical job and outdoor or generally the environment wouldn't be conducive to somebody who likes sitting at a desk" – **Construction Studies Lecturer**

However, there were positive responses derived for this minor theme, as shown below:

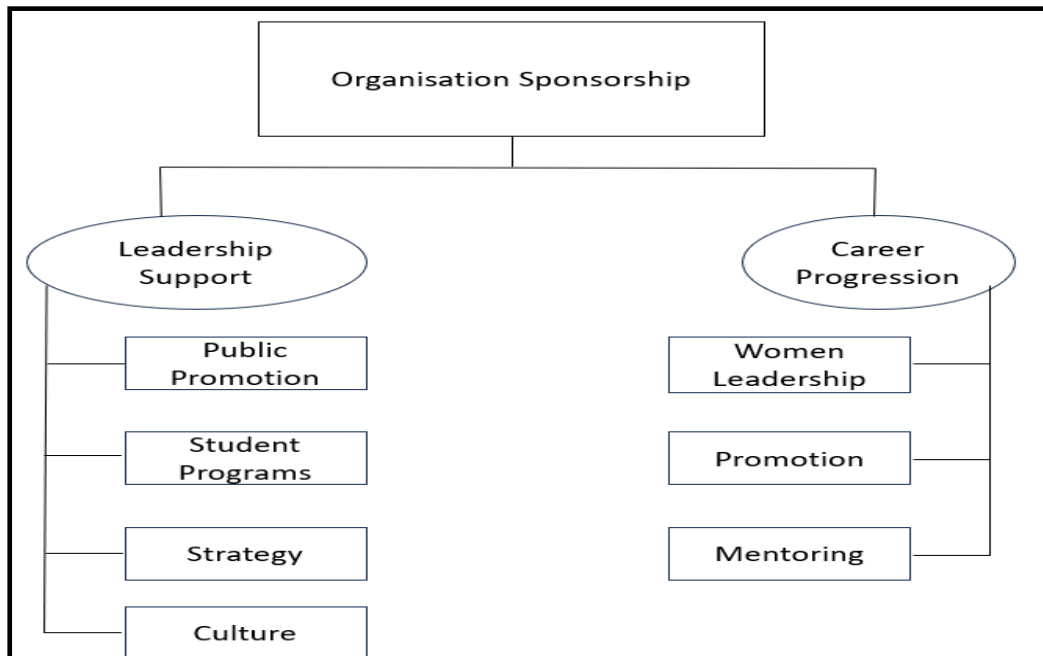
"Construction industry is going to change, it'll be more attractive to females because there's going to be a lot more off-site manufacturing. There will be less requirement to do those dirty jobs onsite" – **HR Manager 1**

"Will be more automated, less physically demanding" – **Construction Studies Lecturer**

### **Organisation Sponsorship**

The second theme identified was Organisation Sponsorship, which was derived from participant's responses to the responsibility and intervention required from construction organisations to attract, retain and promote women in the construction industry. The theme was divided into two minor themes: (1) Leadership Support and

(2) Career Progression. These two minor themes were derived from seven codes. Participants codes for Leadership Support included public promotion, student programmes, strategy and culture. Participants codes for career progression included women leadership, promotion and mentoring. The major theme, associated minor themes, and codes are shown in Figure 2.



**Figure 2:** Organisation Sponsorship Thematic Map

The minor theme for Leadership Support was derived from participants' responses for organisation's senior leadership to advocate for women in the construction industry, as shown in extracts below:

"The construction industry will fail if we don't get this right. Senior leadership are looking at it and they know, it has to change, has to move" – **HR Manager 1**

"Construction companies, when they come to careers fairs, they should always have a female with them from the company, its very important to have a female face out there, publicly visible, to allow students to see perhaps different pathways within the companies. When they're big companies, there's lots of pathways" – **Construction Studies Lecturer**

"Our senior leaders are male, we can't hide behind that. The good work that is being done to attract females, it's the younger generation. To get to 50%, its going to take decades" – **HR Manager 1**

"Culture - how do you fix that? Takes a lot of time" – **Female Candidate 2**

"We've introduced a number of webinars, things that maybe you wouldn't associate with the construction industry, things like menopause, fertility awareness, which is a lot more common" – **HR Manager 2**

The second minor theme, Career Progression, was derived from participants' quotes relating to the lack of opportunity to progress in their careers in the Irish construction industry. Some participants extracts are shown below:

"We are struggling in having women at senior positions, that's what we need to work at. It's going to take time for people to move up to those positions" – **HR Manager 2**

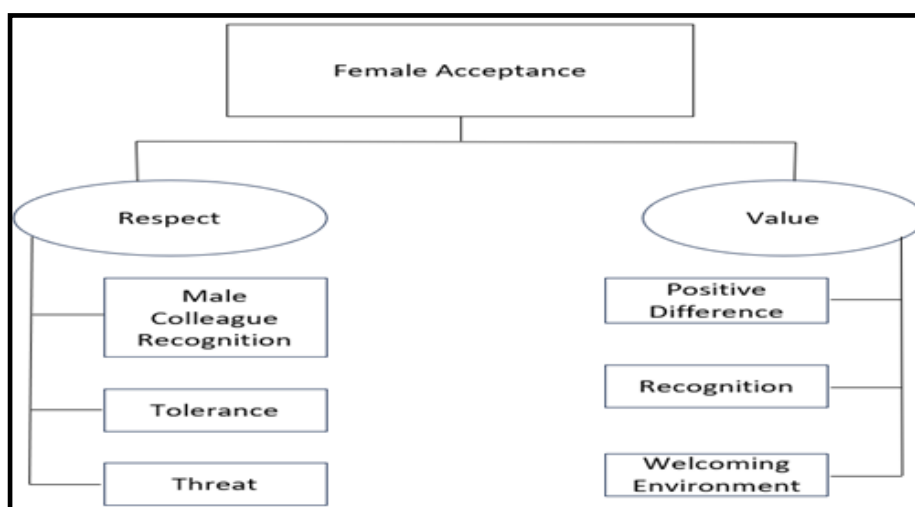
"There's never enough mentors, and sometimes no time to do that really because of schedule and everything; you won't be as much promoted as your male colleagues. I think it is really hard for a woman and they don't hear you when you say something" – Female Candidate 1

"I think mentoring would be brilliant, maybe men need it too. But certainly, women definitely would benefit from mentoring" – **Female Candidate 2**

"We are not doing it (Mentoring) internally, officially yet, but we have called it out, we knew that we needed it and we knew we're not ready yet and we're using external support. It's hugely beneficial." – **HR Manager 1**

### **Female Acceptance**

The third theme identified was Female Acceptance, which was derived from participants' responses to embracing and accepting women into the Irish construction industry. The theme was divided into two minor themes: (1) Respect and (2) Value. These two minor themes were derived from six codes. Participants' codes for Respect included male colleague recognition, tolerance, and threat. Participants' codes for Value included positive difference, recognition, and welcoming environment. The major theme, associated minor themes, and codes are shown in Figure 3.



**Figure 3:** Female Acceptance Thematic Map

The first minor theme, Respect, derived from participants' responses to working with male colleagues. Some participants extracts are shown below:

"Construction guys, still have in their head, women shouldn't be in construction, it's not for them. They just go like... ah, what does she know? It's disrespectful." – **Female Candidate 1**

"Women are more eager to get into it if they're in construction. So they're putting more effort in there if they like that job and I think male colleagues wouldn't like that because they see it as a threat." – **Female Candidate 1**

"Lack of recognition." – **Female Candidate 2**

"Our tolerance level for this is zero and we have to ensure that we act on that. But more importantly, that people see us acting on that, because people see the behaviour as well." – **HR Manager 2**

"Jealous that it's like a woman coming in and probably knows better. And more efficient or doing things differently." – **Female Candidate 1**

The second minor theme, Value, derived from participants' responses relating to the contribution women bring to the Irish construction industry. Some participants extracts are shown below:

"Women bring a different perspective, that different voice and I think having more women in our industry and more women on our sites, bringing in that different perspective, can only be good." – **HR Manager 2**

"Companies should see that actually, women have a very good value and they bring different things to the table than just being a hard worker. They also soften things up sometimes and make working a little bit more pleasant." – **Female Candidate 1**

"Huge recognition of the value that women can add to the construction industry", "It's an absolute necessity. The construction industry will fail if we don't get this right." – **HR Manager 1**

"Women in construction have to, instead of working 100%, or giving 100%, they have to work 120% to be heard and to be recognised. I think they always do that a little bit more to get recognised and I think that is a really valid reason to have them on equal pay." – **Female Candidate 1**

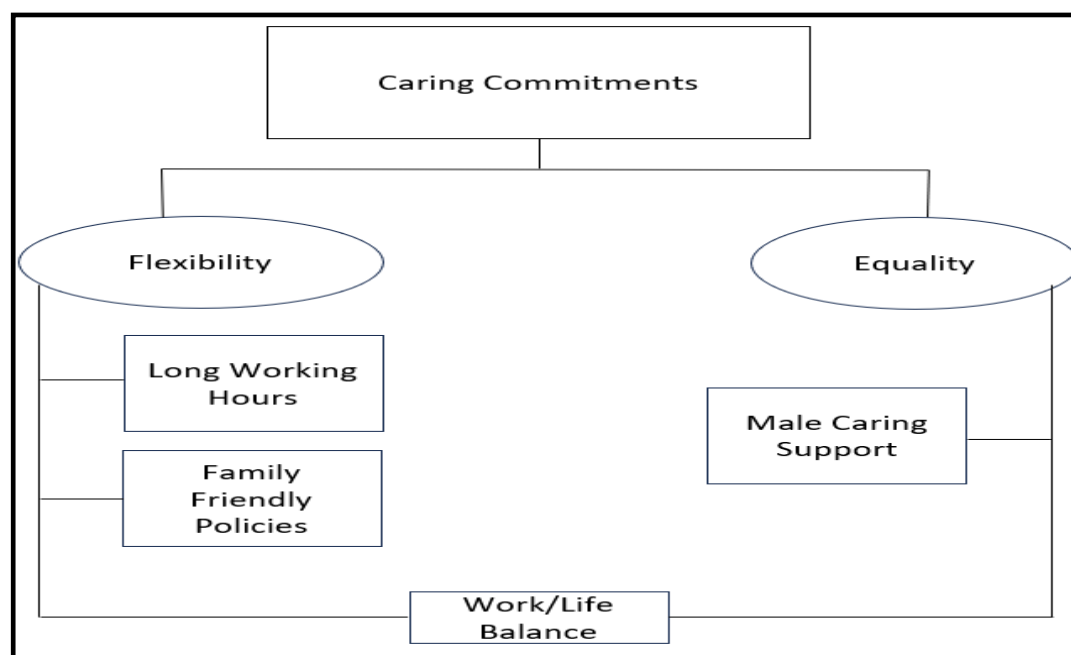
"Create a workspace where you can come to work and be yourself. Yes, we value you for what you do in work, not the colour of your skin, or your sexual orientation or your gender." – **HR Manager 2**



## Caring Commitments

The fourth theme identified was Caring Commitments, which was derived from participants' responses to the additional responsibilities of women in the home. The theme was divided into two minor themes: (1) Flexibility and (2) Equality.

These two minor themes were derived from two codes and one overlapping code. Participants' code for Flexibility included long working hours and family friendly policies. Participants' code for Equality included male caring support and the overlapping code included work/life balance. The major theme, associated minor themes and codes are shown in Figure 4.



**Figure 4:** Caring Commitments Thematic Map

The first theme, Flexibility, derived from participants' responses for organisations to support flexible working hours initiatives. Some participants' extracts are shown below:

"It goes back to the same old, same old 'Flexibility'; long working hours, lack of flexibility; family friendly policies, flexible working hours could be the norm rather than the exception." – Female Candidate 2

"What we've tried to do is introduce leaves where its okay for the man to take some time off." – **HR Manager 2**

The second theme, Equality, derived from participants' responses for society to recognise the onus of family/home responsibilities on women and for men to assume more responsibilities in the home. The code of male caring support derived from participants' extracts as shown below:

"We can bring as much extra leave, but the female still has a higher percentage of the overall responsibilities in the home"; "it's that caring piece that no matter

how equal you might say things are, at the end of the day, the female still has more, there's more responsibility to put in and I think that's the biggest barrier; I still think that's going to be there in 10 years time." – **HR Manager 1**

"So no matter how much family leave that's out there, dads get two weeks paid leave after their baby is born, we're just about getting them to take it, so it's to make sure that our males are taking that leave to support the females and encouraging that." – **HR Manager 1**

"We're trying to encourage men to do that (take leave) by bringing in some policies that say, well actually, it's not just your wife's or your partner's responsibility to raise the child. You can go home for two, four, seven weeks, whatever it is, so go do that." – **HR Manager 2**

The overlapping sub-theme of Work/Life balance stems from both minor themes. The research presented findings into the lived experience of the interview participants in the Irish construction industry. The study hypothesised, based on previous research, that gender inequality continued to exist in the Irish construction industry.

## **Discussion and Recommendations**

The results from qualitative semi-structured interviews and analysis presented themes derived four key areas for discussion (1) Early Career Choices, (2) Organisation Sponsorship (3) Female Acceptance into the industry and (4) Family and Caring Commitments.

### **Early Career Choices**

A new theme derived from the research study.

#### **School Guidance Counsellors**

There is a lack of awareness amongst young girls and women of the opportunities and career possibilities in the Irish construction industry. The research suggests this should be instilled in females at a young age, not only in second level but primary level schooling. Ericksen and Schultheiss<sup>38</sup> claim school guidance counsellors do not have the knowledge and awareness of career options available for girls in the construction industry. They argue that school guidance counsellors need to understand the gender gap implications and intervene to break the image and stereotype of non-traditional roles for girls in the construction industry. Recommendations include attracting girls and women to the industry at a young age.

This supports Ericksen and Schultheiss<sup>39</sup> argument for school guidance counsellors to increase their knowledge base and awareness of the career opportunities available

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38. Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction."

39. Ibid.

in the construction industry. This could include, for example, controlled safe school tours to construction sites, visits to career fairs, and construction organisation personnel visiting schools to present career talks. By becoming advocates, they are supporting a societal shift to STEM gender balance.<sup>40</sup>

### **STEM Subject Prerequisites**

There are several routes to access employment in the Irish construction industry including craft apprenticeships and third level courses. However, most routes include prerequisites of students studying STEM subjects in second level school. As a result, the routes that require these prerequisites significantly restrict girls' access to apprenticeships, third level courses and a career in the industry.<sup>41</sup> This was evident in the data statistics representing low participation of women in apprenticeship programmes and construction related third level courses in Ireland. Recommendations include the Department of Education<sup>42</sup> supporting a societal shift and addressing gender equality in the access of STEM subjects to students in the Irish school curriculum.

### **Apprenticeships**

Apprenticeship programmes offer a route for girls interested in a career in the construction industry and for organisations to recruit talented people with diverse experience.<sup>43</sup> In response to the lack of female participation in apprenticeships and to address the skills shortage in the industry, the Irish government funded the National Apprenticeship Office's<sup>44</sup> programme. This programme was developed to raise awareness to young women of craft trade apprenticeships training and programmes. Ericksen and Schultheiss<sup>45</sup> argue these craft trades initiatives prepare potential employees to explore the opportunities of apprenticeships. As the data statistics showed in the literature review, there is a significant under-representation of women in craft trade apprenticeships in the Irish construction industry. Fielden et al.<sup>46</sup> argue that apprenticeships continuously fail to attract women regardless of government intervention.

Recommendations include challenging the outdated understanding of construction related apprenticeship programmes and for government to raise awareness, via

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40. Department of Education, "Recommendation on Gender Balance in STEM Education," (2022), <https://assets.gov.ie/218113/f39170d2-72c7-42c5-931c-68a7067c0fa1.pdf>

41. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?";  
Fielden et al., "Women in Construction: The Untapped Resource";  
Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction."

42. Department of Education, "Recommendation on Gender Balance in STEM Education."

43. Fielden et al., "Women in Construction: The Untapped Resource."

44. Generation Apprenticeship, "Information and Background";  
Ibid, "Facts, Faces, Futures Resources."

45. Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction."

46. Fielden et al., "Women in Construction: The Untapped Resource."

specialised media promotion and communication, of the opportunities that these programmes present for women in the Irish construction industry.

### ***Image / Physical Strength***

The research suggested stereotypes remain and societal prejudices influence young girls and women's perception of careers in the Irish construction industry. Women do not consider working in the industry as society's perception of the image of physical strength defers women from applying for construction roles, as suggested by the literature.<sup>47</sup> This research found that, despite the development of technological advances in equipment used on construction sites to decrease the need for physical strength, the perception of demanding physical work continues.

The perception of women only suited to administrative and office roles in the construction industry<sup>48</sup> will change as technical advancements and improvements in equipment used onsite will enable all workers to perform labour tasks that were previously perceived to be male duties only.

Recommendations include society challenging the belief that is still being held of physical demanding work in the industry. Adogbo, Ibrahim and Ibrahim<sup>49</sup> suggest this could be conducted by the industry's professional bodies, e.g. Construction Industry Federation, promoting images of women and minorities employees across the industry.

### **Organisation Sponsorship**

#### ***Leadership Support***

To achieve gender parity in the Irish construction industry, senior leaders, in particular, successful female role model leaders, play a critical role in attracting, retaining, and motivating women in the industry and addressing the issues they encounter.

#### ***Public Promotion***

The research suggested an under-representation of the organisation's female employees at external events and seminars. Recommendations include organisations ensuring a female representative from their organisation is present

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47. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?"; Fielden et al., "Women in Construction: The Untapped Resource"; Adogbo et al., "Development of a Framework for Attracting and Retaining Women in Construction."; L. Clarke, *Women in the Building Sector* (Brussels: European Trade Union Institute, 2021), [https://www.etui.org/sites/default/files/2021-05/6\\_Women%20in%20the%20Building%20Sector.pdf](https://www.etui.org/sites/default/files/2021-05/6_Women%20in%20the%20Building%20Sector.pdf)
48. Adogbo et al., "Development of a Framework for Attracting and Retaining Women in Construction.";
49. Ibid.

at external events to promote visibility of gender diversity. Lingard and Francis<sup>50</sup> and Francis<sup>51</sup> recommend organisations showcase their commitment to gender diversity by participating in professional industry bodies networks, seminars and workshops, such as Women in Construction, thus supporting networking and leveraging from the actions within the industry to address gender issues. They also suggest that these networking sessions support the retention and promotion of women in construction, as they provide opportunities for women to network and develop in their careers.

### **Student Programmes**

Irish construction organisations play a critical role in helping students of all ages to become familiar with the range of work opportunities and rewards available in the construction industry.<sup>52</sup>

Recommendations include organisations partnering with schools and colleges to offer work placement experience, training, formal links with colleges in the vicinity<sup>53</sup> and college internships to gain insights into the work and career role possibilities.

### **Strategy**

The research highlighted participants were either not aware if their employer had set gender quota targets, and for those who were aware, did not know what the diverse targets were. Recommendations include organisations setting clear diverse workforce targets<sup>54</sup> especially for Gender and Intersectionality reporting and actively communicating to all employees within the organisation. Francis<sup>55</sup> also suggests creating internal gender and other minority support networks within their organisation.

### **Career Progression**

Irish construction organisations and industry bodies are imperative in advocating for women to fulfil their potential and thrive in their careers in the industry. The issues encountered by women at every stage of their career progression, and the lack of acknowledgment of their ability, contributes to women not entering the industry.<sup>56</sup> Recommendations include Mentoring and Female Role Models.

### **Mentoring and Female Role Models**

Mentoring is imperative to supporting women with the necessary skills, experience

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50. Lingard and Francis, "The Work-Life Experiences of Office and Site-Based Employees."

51. Francis, "What Influences Professional Women's Career Advancement in Construction?"

52. Clarke, *Women in the Building Sector*.

53. Ibid

54. Ibid.

55. Francis, "What Influences Professional Women's Career Advancement in Construction?"

56. Fielden et al., "Women in Construction: The Untapped Resource."

and confidence to pursue career progression within the industry.<sup>57</sup> However, there is a low representation of female mentors and role models in the industry.<sup>58</sup> All research participants agree that it is imperative to have mentors and inspiring female role models in the industry that young girls and women can emulate in their careers and professional development. This research claims mentorship that is provided by organisations is not available in-house but sourced, when required, via external programmes.

It is imperative for organisations to provide good mentoring programmes to retain women and educate them on career options available in the Irish construction industry. Recommendations include organisations consciously highlighting and promoting female role models, leaders and career opportunities in their organisation and across the industry, including career fairs and specialised communication including media. Mentoring can be supported in-house, not only by women, but male professionals<sup>59</sup> within the organisation.

### ***Female Acceptance***

All research participants agreed organisations benefit from employing women into their organisations as women promote a better working atmosphere. One female participant reported being subjected to sexist behaviour and not being taken seriously because she was a woman. Research<sup>60</sup> affirms the same for women in the construction industry. Ericksen and Schultheiss<sup>61</sup> argue this behaviour leads to resentment by male colleagues. Fielden et al.<sup>62</sup> claim women who experience sexist behaviour from their male colleagues are hesitant to inform a person in authority as most senior positions are held by males. Fielden et al.<sup>63</sup> also claim some construction managers prefer female workers on construction sites, as they produce higher quality work and are more reliable than their male work colleagues, which is also echoed by research participants. Despite the challenges of working in the Irish construction industry, the two female participants enjoyed working in the industry

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57. Lingard and Lin, "Career, Family and Work Environment Determinants";  
Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction";  
Adogbo et al., "Development of a Framework for Attracting and Retaining Women in Construction.";  
Francis, "What Influences Professional Women's Career Advancement in Construction?";  
Afolabi et al., "Balancing the Female Identity in the Construction Industry";  
Bridges et al., "Negotiating Gender."  
D. Bridges et al., "A Trade of One's Own: The Role of Social and Cultural Capital in the Success of Women in Male-Dominated Occupations," *Gender, Work & Organization* 29, no. 2 (2022): 371–387, <https://doi.org/10.1111/gwao.1276>
58. Adogbo et al., "Development of a Framework for Attracting and Retaining Women in Construction."
59. Ibid.
60. Ibid.
61. Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction."
62. Fielden et al., "Women in Construction: The Untapped Resource."
63. Ibid.

and strongly advocated for young girls and women to consider a career in the industry.

Irish construction organisations and trade unions are responsible for ensuring a welcoming environment for all employees, as argued by Fielden et al.<sup>64</sup> Research recommendations included organisations employing a diverse workforce and ensuring the application of equal opportunity policies for all staff. This will ensure women in the industry are being treated equally with promotions and gender pay parity via Gender Pay Gap legislation. Change should begin at the top, with C-suite leadership committing to zero tolerance harassment and role modelling the organisation's values, to ensure adherence to gender equality. Women also need more male advocates and allies to support them in the construction industry.

## Family and Caring Commitments

### Culture

The male-dominated work culture in the construction industry advocates for long working hours, early start times, presenteeism and overworking on sites.<sup>65</sup> These are ranked as the highest stressor for construction professionals.<sup>66</sup> Changing work locations also presents a challenge for childcare support.<sup>67</sup> This results in women highlighting demanding work conditions as a barrier to pursuing their career in construction<sup>68</sup> and women leaving the workforce<sup>69</sup> leading to the inability to achieve gender equality.

All research participants agreed women assume more childcare and family responsibilities than males. Lingard and Francis<sup>70</sup> reveal that difficulty in balancing work and family is one of the top challenges faced by all female construction professionals regardless of their occupation, experience or career level. Fielden et al.<sup>71</sup> argue that the construction industry fails to understand the issues experienced by women with combining family and work commitments. Dainty, Neale and Bagilhole<sup>72</sup> found that the pressure on women to work long hours, has a negative impact on their family life. According to Adogbo, Ibrahim and Ibrahim,<sup>73</sup> this influences their

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64. Fielden et al., "Women in Construction: The Untapped Resource."

65. R. P. Zhang et al., "Does Gender Really Matter? A Closer Look at Early Career Women in Construction," *Construction Management and Economics* 39, no. 8 (2021): 669–686, <https://doi.org/10.1080/01446193.20211948087>

66. Ibid.

67. Fielden et al., "Women in Construction: The Untapped Resource."

68. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?"

69. Clarke, *Women in the Building Sector*.

70. Lingard and Francis, "The Work-Life Experiences of Office and Site-Based Employees."

71. Fielden et al., "Women in Construction: The Untapped Resource."

72. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?"

73. Adogbo et al., "Development of a Framework for Attracting and Retaining Women in Construction."

ability to meet demands, perform well in their work roles and limits time available to focus on career development. Organisations have implemented some work/life balance policies including flexible working and external mentoring programmes. However, this research findings revealed these initiatives do not significantly affect women's overall career advancement but do support a happier, more family-friendly work environment.<sup>74</sup> Recommendations from this research suggests organisations improve working conditions for women including more structured work hours and parental leave for both men and women. It is also suggested for construction organisations to offer day care creche facilities in close proximity of their construction sites, so parents can visit their children if working long hours.

## Conclusion

The construction industry in Ireland is growing with job demand and employment opportunities for men and women. However, the industry is experiencing a significant skills shortage. The research aimed to understand the current employment status of women in the industry, identify the issues they faced upon entry and retention and examine recommendations for the industry to address these issues.

The results from the qualitative semi-structured interviews and analysis derived four key themes (1) Early Career Choices, (2) Organisation Sponsorship (3) Female Acceptance into the industry, and (4) Family and Caring Commitments. The literature review and research findings suggest that in recent years, the industry and organisations have sought to address gender inequality and mitigate the skill shortages, by making efforts to attract and retain the untapped resources<sup>75</sup> of women, with the message that there are many career opportunities for women in the industry. However, considering the lack of support the industry offers to women,<sup>76</sup> occupational and organisational segregation continues to contribute to the gender gap and underrepresentation of women in the industry.<sup>77</sup> This needs to be prioritised if the industry is to succeed in attracting and retaining women.<sup>78</sup>

The construction industry continues to foster the image of a physical strength and male-dominated industry, with poor working practices and a culture that undermines women.<sup>79</sup> The research suggested the under-representation of women in the industry is explained by a number of factors, ranging from lack of awareness of

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74. Francis, "What Influences Professional Women's Career Advancement in Construction?"

75. Fielden et al., "Women in Construction: The Untapped Resource."

76. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?"

77. Fielden et al., "Women in Construction: The Untapped Resource";

Eriksen and Schultheiss, "Women Pursuing Careers in Trades and Construction."

78. Norberg and Johansson, "Women and 'Ideal' Women."

79. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?";

Fielden et al., "Women in Construction: The Untapped Resource";

Adogbo et al., "Development of a Framework for Attracting and Retaining Women in Construction.";

Clarke, *Women in the Building Sector*.



the opportunities in the industry, image perception of women working in the industry, unconscious gender bias, and the need for organisational support.

Research findings indicate that women in the industry, including women in large organisations, are met with a challenging range of issues. These include workplace culture, discriminatory behaviour from their male colleagues,<sup>80</sup> poor work conditions, unrealistic demands and gender biased attitudes,<sup>81</sup> with others arguing that long working hours and poor work/life balance also have significant impacts on women's personal and family lives.<sup>82</sup> These issues have been shown to hinder women's career progression in the industry.<sup>83</sup> The equality issues in the industry place too many expectations on women to change the workplace culture<sup>84</sup> and change men.<sup>85</sup> Thus, the onus is on the construction industry and trade unions representing workers in the industry, to change the culture to benefit both women and men.

The issues for women entering the industry begin in early education and continue throughout their second and third level education and into their careers. It is clearly evident from this research that there is a need to address the significant gap in women applying for trade apprenticeships and third level construction related studies. Recommendations include future research to understand STEM subject prerequisites and why female students do not pursue careers in the industry.<sup>86</sup> The Irish government's funding of the Generation Apprenticeship<sup>87</sup> programme shows the future possibility of women's interest in trade apprenticeships.<sup>88</sup>

The industry must begin to develop gender equality policies and implement them to address cultural change within the industry, to create a more equal workplace

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80. Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction."

81. Norberg and Johansson, "Women and 'Ideal' Women."

82. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?"; K. Ness, "Constructing Masculinity in the Building Trades: Most Jobs in the Construction Industry Can Be Done by Women," *Gender, Work & Organization* 19, no. 6 (2012): 654–676, <https://doi.org/10.1111/j.1468-0432.2010.00551x>;

Adogbo et al., "Development of a Framework for Attracting and Retaining Women in Construction.";

Francis, "What Influences Professional Women's Career Advancement in Construction?";

Afolabi et al., "Balancing the Female Identity in the Construction Industry";

Clarke, *Women in the Building Sector*;

Zhang et al., "Does Gender Really Matter? A Closer Look at Early Career Women in Construction."

83. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?";

84. Clarke, *Women in the Building Sector*;

Zhang et al., "Does Gender Really Matter? A Closer Look at Early Career Women in Construction."

85. Norberg and Johansson, "Women and 'Ideal' Women."

86. Dainty et al., "Women's Careers in Large Construction Companies: Expectations Unfulfilled?";

Fielden et al., "Women in Construction: The Untapped Resource";

Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction."

87. Generation Apprenticeship, "Facts, Faces, Futures Resources."

88. Fielden et al., "Women in Construction: The Untapped Resource."

for women and men. The research suggests work conditions, practices and gender equality must be reviewed and/or reconsidered as recommended by studies.<sup>89</sup> This change will be challenging and needs to be driven from within the sector and not by imposed external legislation, for example, gender pay gap legislation. Senior leaders in the industry and organisations, who are responsible for strategy, are key influencers and change agents at all levels in the industry.<sup>90</sup> Their advocacy, engagement and sponsorship of diversity and family friendly work/life balance programmes and initiatives is imperative to better manage their employees' life and work commitments and shift the culture in the industry.

Senior leaders campaigning to educate all industry stakeholders at all levels on unacceptable and inappropriate behaviour and the impact it has on women and the workforce, is imperative to changing the existing image, attitudes, behaviours, and culture in the industry. In addition, trade unions representing workers in the construction industry also have a role to play in attracting, retaining and promoting gender equality in the construction industry. As more women enter and remain in the industry, more opportunities will emerge for women to progress into senior management and leadership positions, thus acting as inspiring mentors and role models for future female entrants.<sup>91</sup>

The construction industry in Ireland remains one of the most gender biased and discriminatory industries in Ireland. Radical change is required in the industry to address the issues faced by women pursuing careers in construction. Increasing the representation of women in the industry will demystify the existing perceived image of gendered stereotypes and create a more welcoming work environment for women, as suggested by Zhang et al.<sup>92</sup> It is only through genuine compassion and commitment for a more equal workplace, from all stakeholders in the industry, but especially male advocates, that women will develop and progress in their careers, in parity with their male colleagues. If more women can be retained in the industry, this may lead to an increase in the number of women entering and remaining in the industry, thus addressing the gender inequality and the gender gap.

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89. Lingard and Francis, "The Work-Life Experiences of Office and Site-Based Employees."; Francis, "What Influences Professional Women's Career Advancement in Construction?"; Clarke, *"Women in the Building Sector."*

90. Fielden et al., "Women in Construction: The Untapped Resource"; Clarke, L., 2021. *Women in the Building Sector*.

91. Lingard and Lin, "Career, Family and Work Environment Determinants"; Ericksen and Schultheiss, "Women Pursuing Careers in Trades and Construction"; Adogbo et al., "Development of a Framework for Attracting and Retaining Women in Construction."; Francis, "What Influences Professional Women's Career Advancement in Construction?"; Afolabi et al., "Balancing the Female Identity in the Construction Industry"; Bridges et al., "Negotiating Gender."

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## Appendix: Research Interview Questions

| Interview questions for HR managers in top construction organisations |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.                                                                    | What changes have occurred in the Construction Industry in the last 10 years in terms of workforce composition – e.g. attracting, recruiting, and retaining workers?                                                                                                                                                                                                                                                                                     |
| 2.                                                                    | Please elaborate – do you perceive these changes as positive or negative?                                                                                                                                                                                                                                                                                                                                                                                |
| 3.                                                                    | How many employees work in your organisation?                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.                                                                    | How many women / men / gender non-disclosed?                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.                                                                    | What particular fields in construction are they working, both office support and trades/apprenticeships?                                                                                                                                                                                                                                                                                                                                                 |
| 6.                                                                    | How many women are employed to work on the building sites?                                                                                                                                                                                                                                                                                                                                                                                               |
| 7.                                                                    | How many women and men are in senior management and leadership positions?                                                                                                                                                                                                                                                                                                                                                                                |
| 8.                                                                    | What actions is your organisation taking to attract and retain more women into your organisation and the construction industry?                                                                                                                                                                                                                                                                                                                          |
| 9.                                                                    | What is the average annual attrition of women in your organisation?                                                                                                                                                                                                                                                                                                                                                                                      |
| 10.                                                                   | What roles have the highest attrition?                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 11.                                                                   | What are your thoughts / feedback on the 1st year (2022) Gender Pay Gap (GPG) reporting legislation for the overall Irish Construction industry, one of the highest GPG industries?                                                                                                                                                                                                                                                                      |
| 12.                                                                   | What was your experience in engaging with the 1st year (2022) GPG reporting for your organisation? (quote their GPG percentage available on their website)                                                                                                                                                                                                                                                                                               |
| 13.                                                                   | How does your organisation plan to address this high percentage GPG and improve gender equality?                                                                                                                                                                                                                                                                                                                                                         |
| 14.                                                                   | <p>Research suggests some of the top barriers for attracting, retaining and promoting women in a male-dominated construction industry include:</p> <ul style="list-style-type: none"> <li>• Long working hours and family commitments</li> <li>• Flexible working options</li> <li>• Career development and progression</li> <li>• Mentoring</li> </ul> <p>Can you share with me what actions your organisation is taking to address these barriers?</p> |
| 15.                                                                   | Can you share with me any other barriers highlighted by women in your organisation?                                                                                                                                                                                                                                                                                                                                                                      |

|     |                                                                                                                                           |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------|
| 16. | Have women in your organisation reported they feel uncomfortable working in an industry which is mainly dominated by the male population? |
| 17. | Has your organisation set targets / gender quotas for the next 3–5 years?                                                                 |
| 18. | If so, can you share those quotas with me?                                                                                                |
| 19. | What challenges do you perceive for the future with attracting women into the Irish construction industry and your organisation?          |

### **Interview questions for women working in the Irish construction industry**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | What made you decide on a career in the construction industry?                                                                                                                                                                                                                                                                                                                                                                                           |
| 2.  | How long have you worked with this construction organisation?                                                                                                                                                                                                                                                                                                                                                                                            |
| 3.  | What was your first job in construction?                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 4.  | What is your current job role?                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.  | Do you think the Irish construction industry is changing?                                                                                                                                                                                                                                                                                                                                                                                                |
| 6.  | If yes, what changes have you seen in the Irish construction industry over the past 5 years?                                                                                                                                                                                                                                                                                                                                                             |
| 7.  | Do you perceive these changes as positive or negative?                                                                                                                                                                                                                                                                                                                                                                                                   |
| 8.  | Do you think women are being treated fairly and equally in construction?                                                                                                                                                                                                                                                                                                                                                                                 |
| 9.  | Are you aware of the actions and initiatives your organisation is taking to attract, retain and promote women into your organisation and the construction industry?                                                                                                                                                                                                                                                                                      |
| 10. | What actions would you recommend to improve attracting women into the construction industry?                                                                                                                                                                                                                                                                                                                                                             |
| 11. | Are you aware of the introduction of Gender Pay Gap (GPG) reporting legislation in 2022?                                                                                                                                                                                                                                                                                                                                                                 |
| 12. | Are you aware of your organisation's 2022 GPG report? Have you read it?                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. | What actions would you recommend your organisation takes to address the high GPG?                                                                                                                                                                                                                                                                                                                                                                        |
| 14. | <p>Research suggests some of the top barriers for attracting, retaining and promoting women in a male-dominated construction industry include:</p> <ul style="list-style-type: none"> <li>• Long working hours and family commitments</li> <li>• Flexible working options</li> <li>• Career development and progression</li> <li>• Mentoring</li> </ul> <p>Can you share with me what actions your organisation is taking to address these barriers?</p> |

|     |                                                                                                                                                                                                                                      |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15. | Does your organisation support family friendly policies / initiatives?                                                                                                                                                               |
| 16. | Can you share with me any other barriers highlighted by women in your organisation?                                                                                                                                                  |
| 17. | Has your organisation set targets / gender quotas for the next 3-5 years?                                                                                                                                                            |
| 18. | If so, do you know what those quotas are?                                                                                                                                                                                            |
| 19. | What challenges do you perceive for the future with attracting women into the Irish construction industry and your organisation?                                                                                                     |
| 20. | How can women be supported to achieve a successful career in the Irish Construction industry?                                                                                                                                        |
| 21. | What actions would you recommend to the Irish government and construction industry bodies to address gender inequality in the Irish construction industry?                                                                           |
| 22. | Any other thoughts, feedback, comments you would like to share with me that I have not asked during this interview and you think would be important to include in my research on Gender Equality in the Irish construction industry? |