# Gender-perceived workplace stressors by New Zealand construction professionals

#### Authors:

Dr Andries (Hennie) van Heerden, Senior Lecturer, Building Technology, School of Built Environment, College of Sciences, Massey University, New Zealand

Dr Mikael Boulic, Senior Lecturer, Building Technology, School of Built Environment, College of Sciences, Massey University, New Zealand

Dr Barry McDonald, Senior Tutor, School of Mathematical and Computational Sciences, College of Sciences, Massey University, New Zealand

Dr Gregory Chawynski, Senior Lecturer, Construction Management, School of Built Environment, College of Sciences, Massey University, New Zealand

#### **Summary of Key Information, Insights and Messages**

Access to the full open access Journal Article: <u>Massey Research – Gender Perceived Workplace</u> <u>Stressors</u>

#### **Purpose**

This document summarises the key findings of Massey University's School of Built Environments research article titled "Gender-perceived workplace stressors by New Zealand construction professionals".

The key findings are summarised in an easy-to-read format so readers can understand what was investigated in the article and improve their knowledge of gender-perceived stressors in the New Zealand construction industry.

.....

Question / Topic	Key insights / messages / talking points
Why is the study relevant and significant?	Our research has explored the issue of whether there is a discrepancy in the perception and response to work-related stressors between male and female professionals in the construction field, as there is no consensus on this matter. The study specifically focuses on the New Zealand construction industry and examines stressors at four different levels: 1) individual, 2) group, 3) organization, and 4) extra-organisation.  Enhancing gender equality may play a crucial role in improving productivity within the sector, therefore it is essential to comprehend the factors that are significant in attracting and retaining women.
What will the project's contribution be?	This project provides evidence-based details to explore the relationship between gender and personal attributes and investigate the effect of gender on perceived stressors in the context of the New Zealand construction industry.



# **Key Insights Conclusions**

### **Conclusions & Implications**

The investigation brings attention to the fact that female professionals typically possess higher qualifications, which leads to improved job positions. However, they report less work experience and technical skills, potentially influenced by societal roles such as child-rearing. Furthermore, the females exhibit varied perceptions of stressors such as role conflict and gender discrimination, indicating the presence of ongoing workplace bias. In contrast, male professionals primarily experience stress due to job demands, a common issue worldwide.

Despite these disparities, there were no significant gender-based discrepancies observed in overall stress levels, with the exception of concerns regarding sexual harassment, particularly among females in trades, which warrants further examination.

The research underscores the necessity of industry-wide initiatives to address gender imbalances, advocating for equitable practices, a more balanced parental leave system, continuous education, mentorship programs, and support for mental health. Additionally, it calls for clearly defined career paths and the development of skills, particularly for women, in order to enhance work-life balance and stress management.

#### **Limitations**

The study acknowledges limitations, including potential biases in questionnaire interpretation. A higher survey response rate from females might reflect a greater willingness or opportunity to participate due to office-based roles or heightened stress perception.

# Findings – Data

Out of 430 responses to the survey, only 317 responses were complete and could be used for analysis.

Descriptive data on the respondents:

- 78.8% male and 21.2% female in this survey compared to 85% male and 15% female in the New Zealand Construction sector,
- 79% of respondents (87% males vs. 71% females) were involved in 10 or more projects,
- 88% of respondents had Levels 4-7 qualifications,
- On average, 70.5% of respondents rated their required technical knowledge to complete a project as "high" to "very high",
- On average, 82% of respondents assessed their level of soft skills as being "high" to "very high".

# Key Insights – Gender differences in professional background

#### **Academic qualification differences**

The data showed that 88% of respondents reported the highest level of qualification between Level 4 (Certificate of Achievement) and Level 7 (Bachelor's degree). Comparing genders, 58% of females reported a qualification higher than a level 5 certificate (Diploma, Bachelors or Masters) whereas only 43% of males reported a qualification higher than a level 5 diploma. To conclude, the survey showed that female professionals had higher qualifications than their male counterparts.

There was a positive correlation between the highest qualification and stress at the individual level from role conflict, role ambiguity, interpersonal relationships and ethical dilemmas.



#### Differences in the number of years of experience

The survey showed that male respondents reported approximately ten more years of experience and a higher number of completed projects than female respondents. This suggests a significant experience gap between genders.

The number of years of experience, the number of completed projects and involvement in multiple construction sectors all contribute to developing technical and soft skills. However, the results showed that males reported higher levels of perceived technical knowledge than females, but both genders reported similar soft skill levels.

Gender, years of experience, completed project number, technical/soft skills, and multi-sector involvement were then tested for correlation with stressors. The results show no relationship between stressor level and number of projects completed per gender. However, a weak relationship was found between stressor level and mean role conflict, years of experience and gender.

#### Key Insights -Perception of stressors between genders

#### **Perception of individual stressors**

The "individual-level stressors" had six different variables assessed: 1) stresses arising from job demand, 2) role conflict, 3) role ambiguity, 4) interpersonal relationships, 5) ethical dilemmas, and 6) work.

The survey reveals varying impacts of these stressors, with considerable agreement among respondents on job demands, role ambiguity, and work-related stress. However, the role conflict and the ethical dilemmas show more diverse impacts, with a significant portion of respondents affected.

The analysis also highlights gender differences, with females reporting higher stress from certain factors like role conflict and ethical dilemmas, particularly related to gender treatment.

This contrasts with males, who reported higher stress from job demands and on/off-site office and administration building conditions.

Despite similar average stress levels between genders for job demands and work, females display greater variability in their responses. This suggests that females tend to prioritise jobs with lower demands to manage work-life balance, potentially influenced by caregiving responsibilities.

# Key Insights -Perception of stressors between genders

#### **Perception of group-level stressors**

The "group-level stressors" had six different variables assessed: 1) managerial behaviour, 2) lack of cohesiveness, 3) intragroup conflict, 4) status incongruence, 5) sexual harassment, and 6) workplace violence.

The data showed no significant gender differences in the perception of most stressors, except for sexual harassment, which was reported as more impactful by females. Additionally, a significant correlation was observed between higher qualifications and the perception of group-level stressors, suggesting that individuals with higher qualifications may perceive these stressors more acutely.



Despite the overall lack of gender disparity in stressor perception, the specific issue of sexual harassment was highlighted as an area requiring further investigation, acknowledging its persistence as a problem across professional and non-professional roles within the industry.

# Key Insights -Perception of stressors between genders

#### **Perception of organisational-level stressors**

The "organizational-level stressors" had five different variables assessed: 1) organisational environment, 2) structure, 3) leadership, 4) technology, and 5) changes in work conditions.

The data found no significant gender differences for most stressors, except for technology, which females perceived as more stressful than males.

A significant correlation was identified between higher qualifications and increased perception of organisational stressors, suggesting that more qualified individuals might feel these pressures more intensely.

Although there were no broad gender differences in perceived organisational stressors, the specific technology area was particularly challenging for females, especially those returning from maternity leave.

The research suggests that New Zealand's parental leave policies, which currently offer 26 weeks to a single caregiver, could be reevaluated compared to more flexible European models to better support young female professionals in balancing career and family responsibilities.

### Key Insights -Perception of stressors between genders

#### Perception of extra-organisational level stressors

The "extra-organisational level stressors" had eight different variables assessed: 1) family responsibilities, 2) economic conditions, 3) commuting times, 4) environmental noise, 5) heat, 6) overcrowding, 7) air pollution, and 8) mobility restrictions.

The data showed that these extra-organisational stressors do not significantly differ between genders nor strongly correlate with individuals' qualification levels. However, it's noted that this lack of correlation doesn't rule out the possibility of qualifications impacting these stressors in other contexts. Despite no significant gender differences found in the impact of these stressors, it's acknowledged that external body of knowledge indicating women may experience higher stress from work-family conflict. The potential for these stressors to cause psychological health issues, including depression and anxiety, is highlighted, underscoring the importance of addressing these factors for both genders.

#### **Implications**

The presented findings contribute to the existing body of knowledge pertaining to gender-related disparities in stressors within the construction industry of New Zealand. This information holds importance for key stakeholders as they strive to address the existing gender imbalance and the high stress levels associated with construction jobs. Nevertheless, achieving change in this domain necessitates the active involvement of all industry stakeholders, ranging from individual construction businesses to government policies.

To bring about improvements, various initiatives can be undertaken, including the implementation of non-discriminatory behavior protocols, the establishment of adaptable rewards and recognition systems, the introduction of enhanced parental leave policies, the provision of continuous



training and skills development programs, the promotion of strong mentorship opportunities for individuals of both genders, and the provision of free and confidential access to mental health support programs.

Furthermore, it is imperative to exert further effort in order to address the persisting gender imbalance within the construction industry workforce. This entails both attracting more females to the profession and retaining them in their roles. This can be accomplished by providing clearer definitions of career advancement pathways, ensuring the maintenance of technical skills, and utilizing the experiences of female role models to inform strategies for achieving work-life balance and managing stress.

